This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

3 3433 06908043 4

OPA
+
United

ASTRONOMICAL

AND

METEOROLOGICAL OBSERVATIONS

MADE AT THE

UNITED STATES NAVAL OBSERVATORY

DURING

THE YEAR 1868.

PUBLISHED BY AUTHORITY OF THE

HON. SECRETARY OF THE NAVY.

COMMODORE B. F. SANDS, U. S. N.,
SUPERINTENDENT.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1871.

TABLE OF CONTENTS.

INTRODUCTION.

	Page.
GENERAL INTRODUCTION	V
THE TRANSIT CIRCLE	VI
Description of Instrument and Adjuncts	VI
Arrangement of work with the Instrument	VIII
Explanation of the printed observations and reductions	X
Explanation of observations to determine the zenith point correction	XVI
Explanation of corrections to star positions of the American Ephemeris	XVI
Comparison of observations made directly and by reflection	XVII
Correction to adopted latitude from observations of 1868	XX
Systematic corrections to be applied to positions observed in 1868	XXI
Explanation of the observed positions of the Sun, Moon and Planets	XXIII
Tables and data employed in the reduction of observations	XXV
THE MERIDIAN TRANSIT INSTRUMENT	XXXIV
THE MURAL CIRCLE	XXXVII
THE EQUATORIAL	XL

OBSERVATIONS AND RESULTS.

Summary of the principal constants used in the reductions of the observations with the Transit Circle in 1868	3
Observations with the Transit Circle	4
Meridian Transit Instrument	156
Mural Circle	236
Equatorial	321
Positions of the Sun, Moon and Planets observed with the Transit Circle, 1868	331
Corrections to the star positions of the American Ephemeris, given by individual observations with the Transit Circle	345
Mean right ascensions of stars observed with the Transit Instrument, 1868	365
Mean declinations of stars observed with the Mural Circle, 1868	401
Constants used in the reduction of fixed stars	429
Meteorological observations during 1868	437
List of publications presented to the Library	491

APPENDIX I. Catalogue of stars observed by the United States Astronomical Expedition to the Southern Hemisphere during the years 1850–'51–'52.

INTRODUCTION.

For a general description of the Naval Observatory, and its principal instruments, reference may be made to the Washington Observations for 1865. A more detailed description will be found in Lieutenant Gilliss's "Report on the Plan and Construction of the Depot of Charts and Instruments, with a description of the instruments, &c.," Washington, 1845.

Position of the Observatory.—The latitude deduced from the old observations with the Mural Circle was 38° 53′ 39″.25.[*] The observations from 1861 to 1864, inclusive, indicated a correction of —0″.47 to this value.[†] The adopted longitude from Greenwich, used in interpolating tabular positions of the Moon and Planets, is $5^h\ 8^m\ 12^s.0$.[‡]

Arrangement of work.—The system which has prevailed since the revival of the astronomical activity of the establishment in 1861, is still continued. Under this system, the observations with each instrument are directed by the officer having charge of it, who is held responsible for the proper performance of the work, and prepares the descriptions, explanations, and discussions of the observations which follow.

During the year 1868, the division of the labor was as follows:

The Equatorial was in charge of Professor Asaph Hall, U. S. N.

The Transit Circle was in charge of Professor Simon Newcomb, U. S. N., who was assisted by Professors W. Harkness and J. R. Eastman, U. S. N., and by Mr. Charles Thirion, Mr. C. Abbe, and Mr. E. Frisby; Mr. Frisby having received his appointment as "Aid" on Mr. Abbe's resignation in June.

The Mural Circle and the Transit Instrument were in charge of Professor M. Yarnall, U. S. N., who was assisted by Mr. M. H. Doolittle in the work of the Mural Circle.

The Department of Chronometers remained in charge of Lieutenant Commander Andrew W. Johnson, U. S. N., who also superintended the dropping of the ball at noon, and the transmission of time signals to the city through the Police Telegraph.

The Meteorological Observations were made under the supervision of Professor J. R. Eastman, by the Watchmen of the establishment, Messrs. Thomas Hays, Dennis Horigan, and Nicholas Cahill.

Mr. William F. Gardner, Instrument Maker, had charge of repairs of the instruments during the year.

Mr. Thomas Harrison, as Secretary and Disbursing Officer, had charge of the official correspondence and accounts of the establishment.

In its relations to the Government the Observatory is under the general supervision of the Bureau of Navigation.

---

[*] Washington Observations for 1845; Appendix, p. 116.

[†] Washington Observations for 1864; Introduction, p. xliv.

[‡] In some previous volumes this longitude is erroneously given. All the tabular positions of the Moon since 1860 have been computed with the adopted longitude $5^h\ 8^m\ 12^s.0$.

THE TRANSIT CIRCLE.

During the year 1868 this instrument was employed on the stars of the American Ephemeris, the bodies of the solar system, and a few miscellaneous stars.

CONDENSED DESCRIPTION.

For a detailed description of the instrument, with an investigation of its constants, reference may be had to the Washington Observations for 1865. The following condensed description will suffice for the explanation of the observations and their reductions:

The instrument is furnished with two circles, each divided to every 2′ of arc, and read by four microscopes. The circle on the clamp end of the axis, called circle A, has also a coarse division to every 10′ for setting. The division is read by a single horizontal microscope of low power. The readings of the two circles increase in opposite directions, so that their sum is a constant as the instrument revolves. The microscopes on the west pier are numbered I–IV; those on the east pier V–VIII. The readings of the former diminish and those of the latter increase as the telescope moves from the zenith toward the south. Each revolution of the microscope micrometers measures 30″ of arc.

The instrument is reversible, and each circle can be fastened in any required position relatively to the telescope.

The reticule has twenty-three vertical and two horizontal fixed wires.* The latter serve only to mark the middle of the field. The distances of such of the vertical wires as are frequently used in observation were determined in December, 1865, by a modification of Gauss's method. The entire eye-piece was revolved 90°, so that the transit wires should be horizontal, and clamped in that position. The wires were then successively brought into coincidence with the image of the horizontal wire of the south collimator. At each coincidence the four microscopes of circle A were carefully read. To obtain the successive readings with rapidity and certainty, three observers were employed; one remaining at the eye-piece brought the wires into position by the slow-motion screw of the clamp, while the others each read two microscopes. Four independent determinations of sets B, C, and D, and three of wires I, II, VI, and VII, were thus made. The record of the observations and the individual results will be found at the end of the introduction for 1866. The results are given in the following table, which shows the reduction for an equatorial star, from each wire to the mean of the nine wires selected for habitual observation. The notation of the actual wires is the reverse of that employed in 1867, and agrees with that employed in 1866; the numbers or letters being employed in the order of transit of an equatorial star, whether the clamp be east or west.

	s.		s.		s.
I	+ 36.723	C_1	+ 4.085	D_1	− 8.173
II	+ 24.465	C_2	+ 2.031	D_2	− 9.679
		IV = C_3	+ 0.008	V = D_3	− 12.229
III = B_1	+ 12.253	C_4	− 2.025		
B_2	+ 9.661	C_5	− 4.060	VI	− 24.465
B_3	+ 8.150			VII	− 36.727

The close wires of sets A and E being used only in exceptional cases, they were not included in the above determination. The adopted intervals of set E depend on a single excellent transit of Polaris; those of set A on measurement with the R. A. micrometer wire. They are as follows:

	s.		s.
A_1 =	+ 30.524	VI = E_1 =	− 24.465
A_2	29.586	E_2 =	− 27.533
A_3	28.586	E_3 =	− 28.535
A_4	27.561	E_4 =	− 29.576
II = A_5 =	+ 24.465	E_5 =	− 30.569

---

* Description of the Transit Circle, § 32.

Eye-piece Micrometers.—A single vertical wire is moved in R. A. by a micrometer-screw. It serves for the determination of collimation error, and is sometimes used for observations of the transit of Polaris, when clouds prevent observations at the fixed wires. Each revolution measures $1^s.020$.

The Z. D. micrometer carries four horizontal wires. The middle two form a close pair, distant about $4''.6$, the mean of which is regarded as the standard middle wire. The other two are placed at a distance of about ten micrometer revolutions on each side. That nearest the micrometer head is called wire A; the other wire B.

The readings of both micrometers increase as the wires move from the head, and the position of the head of the Z. D. micrometer is such that an increase of reading is subtractive from the reading of circle A, and additive to that of circle B. When the observer looking into the telescope has circle A on his right, the micrometer head is below the eye-piece. During 1868 this was the position when the telescope pointed north and the observer looked north.

Collimators.—The instrument is furnished with two collimators, of which the object-glasses have each 2½ inches aperture, and 35 inches focus. Each end of a collimator projects 6 inches beyond the supporting pivots, which are only 23 inches apart. The collimators are interchangeable in position. Each is furnished with a delicate spirit level, by which its axis of sight may be leveled. Collimator A has in its focus a pair of wires 10″ apart in one direction, and a single wire crossing them. Collimator B is furnished with a simple pair of rectangular cross wires.

Each side of the central cube of the telescope is pierced with a circular opening 2½ inches in diameter. Each opening is closed by a cap which screws into it. By unscrewing the caps and setting the telescope vertical, the wires of either collimator may be seen through the other.

The Sympiesometer.—This instrument was made by James Green, of New York. Its use is designed to lessen the number of observations and computations necessary in the determination of the correction to the refraction on account of the density of the air. It consists of a vertical tube, the top of which expands into a bulb, while the bottom is bent round in the form of a letter U. The large arm or cistern of the U holds sulphuric acid, and is closed by connection with an air-tight bag of oiled silk. The rest of the tube contains air. The quantity of air is so adjusted that in the hottest weather it nearly fills the vertical tube, while in the coldest weather the acid rises nearly to the bulb. If, now, the density of the fluid were zero, the density of the air within the bulb and tube would be the same as that of the external air. And, at all zenith distances at which it is worth while to observe for the determination of star positions, the refraction may be regarded as a function of the zenith distance and the density of the air simply. But, the sulphuric acid being quite a dense fluid, its height in the tube of the sympiesometer will be a function of any two of the three quantities, barometric pressure, temperature, and density of the external air. Since the datum wanted is the density of the external air, we shall express this density as a function of the height of the sympiesometer and barometer. Let us use the following notation:

B = height of barometer.
τ = temperature, counted from the absolute zero.
D = actual density of external air.
D_0 = density of air when the surfaces of the fluid in the tube and in the cistern are on the same level.
c = constant of elasticity of air.
l = total capacity of tube and bulb, counted from the point at which the surfaces of the acid in the cistern and tube are on the same level, measuring that capacity by the length to which it would be necessary to extend the tube in order that it might hold as much as the bulb.
h = height of internal surface of acid, counted from the same point with l.
a = specific gravity of acid, increased in the ratio of the bore of the tube to that of the cistern, specific gravity of mercury being unity.
B' = pressure of the confined air, in inches of mercury.

Then from well-known properties of elastic gases we derive the equations

$$B = c D \tau$$
$$B' = c D_0 \tau \frac{l}{l - h}$$
$$B' = B - ah$$

From the last two equations

$$B = ah + \frac{c D_0 \tau l}{l - h}$$

Substituting for τ its value from the first equation, we find

$$D = D_0 \frac{l}{l - h} \frac{B}{B - ah}$$

Thus, D is expressed as a function of the height of the fluid in the sympiesometer, and of the height of the barometer. Let us put $B = B_0 + \beta$, B_0 being the mean height of the barometer, and β its small changes. Then developing to the first powers of β we have

$$\frac{B}{B - ah} = \frac{B_0}{B_0 - ah} - \frac{ah\beta}{(B_0 - ah)^2}$$

To estimate the value of the last term of this equation we remark that

The value of a is, roughly, about	$\frac{1}{8}$
The value of β seldom exceeds, during fine weather	± 0.4 in.
The value of h rarely exceeds	8 inches.
While we may put B_0	= 30.15

Consequently, the last term of the equation will rarely amount to $\frac{1}{2000}$, and may therefore be neglected, except in rare and exceptional cases. Neglecting it, we find

$$D = \frac{B_0 l D_0}{(B_0 - ah)(l - h)}$$

so that the density of the air is expressed as a function of the observed height of the sympiesometer, and of determinable constants.

Considering, however, that it was doubtful whether the invariableness of a and D_0 could be relied on for long intervals of time, it was deemed best not to attempt the direct determination of D, but to graduate the scale of the sympiesometer by comparison with the results of the thermometer and barometer. A scale was attached to the sympiesometer, the reading of which gave an approximation to the logarithm of the density of the air, the density at 29 inches and 100° being unity. A table of corrections to this scale was deduced from comparisons with the barometer and thermometer, at various densities of the air.

USE OF THE TRANSIT CIRCLE.

Position of Axis.—The plan of work with the instrument contemplates its reversal at the beginning of each calendar year, and the use of a single circle in an invariable position, with a single set of four microscopes during each year. In the alternate years in which the axis is in the same position, the position of the circle used will be so changed that the polar distances of the stars will depend on different circle divisions in different years. It was therefore reversed at the beginning of the year 1868 so as to bring circle A and the clamp to the east.

Arrangement of Observers.—As a general rule one observer is charged with all the observations to be made during a definite twenty-four hours, which is considered the "observing day." The regular observing day begins at 9 o'clock a. m., but when a special observation is to be made at an earlier hour in the morning, the observers may arrange among themselves to have the tour of duty commence earlier. An isolated observation occurring at an inconvenient hour for the regular observer of the day, is frequently assigned to another.

Mode of Observing.—The telescope is set so as to bring some division of the circle under or near the zero of the microscopes. The subdivision of each 2′ of zenith distance thus depends entirely on the Z. D. micrometer. The bisections of a star in zenith distance are usually made as it crosses wires I, II, VI, and VII, by bringing its image midway between the middle pair of wires of the micrometer. Before each bisection the micrometer is drawn back so that the bisection shall always be made by moving the micrometer-screw forward. Bisections of stars whose polar distance is between 5° and 20° are frequently made at wires B_1, B_3, D_1, and D_3. Stars within 5° of the pole are usually bisected at the wires of set C. In the case of very faint objects, it was found impossible to bring the images between the close wires with accuracy, and such objects are therefore usually bisected with wire A or B. The micrometer readings are recorded after the observation is completed, by means of self-registering indexes.*

The transits of stars more than 5° from the pole over sets B, C, and D, are recorded by the electro-chronograph. Stars within 5° of the pole are observed by eye and ear, generally over the wires of set C, using the beat of the chronograph pen.

It will be seen that by the adopted method of observation of quick moving stars, the attention of the observer is occupied with the determination of but one co-ordinate at a time.

In the case of the sun the transit of the first limb is observed over the usual wires. The telescope is then clamped on one of the horizontal limbs, the image of which the observer brings between the micrometer wires at vertical wires I and II, while a second observer reads the microscopes. The telescope is next clamped on the opposite limb, which is measured at vertical wires VI and VII, while the second observer again reads the microscopes. The telescope is then unclamped, and the transit of the second limb observed as usual.

When the second limb of the moon is to be observed, the circle reading for the full horizontal limb is computed beforehand, the circle is set accordingly, and the microscopes are read before the moon enters the field. Five measures of the limb, if practicable, are then made as it crosses the field. The telescope is immediately unclamped and set on the second limb, the transit of which is observed in the usual way.

Arrangement of Clocks and Chronograph.—All the observations are recorded in time of the Kessel's clock. This clock has a gridiron pendulum, and its rate is tolerably regular. Its beats are recorded by a galvanic current in the way heretofore employed at this Observatory. To avoid any possible effect upon its rate, the mercurial connection is made near the middle of the rod, and the globule of mercury is made adjustable by being forced up from a small reservoir by a screw. It is kept quite small, and of such a height that the knife-edge just grazes its surface without causing any sensible vibration of its mass.

In February, 1867, fearing a possible diurnal inequality in the clock rate during the summer months, arising from the diurnal change of temperature to which it would then be exposed, the clock was taken from its place in the superintendent's room and placed in a niche in the base of the pier of the great equatorial. The diurnal inequality of temperature is here insensible, and the annual inequality small. During warm weather it is exposed to dampness from condensation of the moisture in the air. To guard against this it was surrounded by quicklime.. Unfortunately this substance was found, in slacking, to diffuse itself in the form of an impalpable dust, which penetrated the clock case, and settled on the wheels. Its use had therefore to be discontinued, and chloride of calcium to be substituted.

In the observing room is placed a "counting clock," regulated to run with the Kessel's clock, and thus serve to indicate the second corresponding to each beat of the latter, as indicated by the chronograph pen. It is adjusted every day, on commencing observations, to beat coincidently with the chronograph pen, but the sound of its beat is never employed in observation.

The transits are recorded on the cylinder chronograph, described in previous volumes of the observations. At each interval in the observations exceeding ten or fifteen minutes, the chronograph is stopped, and the hour, minute, and second of the last beat is taken from the face of the counting clock and marked on the sheet. It was also intended that at least one other such indication of the clock beat should always be marked on the sheet while the chronograph was still running, but in this the observers were frequently remiss. Errors of 1^s or 1^m in the record therefore occur occasionally.

Determination of Error of Collimation.—This constant is determined from the opposing collimators, without reversal of the instrument. The covers of the opening through the cube of the telescope being removed, the latter is set on collimator A. One Y of the collimator is then so adjusted in azimuth that the middle wire of the telescope shall be about midway between the images of the parallel wires of the collimator. The observer can make this adjustment by viewing the reticule of the telescope through the collimator. The small deviation of the middle wire of the telescope from the mean of the collimator images is then measured with the R. A. micrometer. This measure is made by first so setting the micrometer wire that the mean of it and the fixed wire shall coincide with the mean of the images, and then moving it so as to coincide with the fixed wire. The required deviation is then one-half the space passed over. If, as is generally the case, the movable wire is almost in contact with the fixed one at the first setting, it is moved to an equal distance by estimation on the other side of the fixed wire. The required deviation is then one-fourth the space passed over.

---

* Description of the Transit Circle, § 30.

The telescope is then pointed toward the zenith, and the observer brings the vertical wire of collimator B midway between the parallel wire images of collimator A.

The telescope is then pointed on collimator B, and the double distance of its wire image from the middle wire of the telescope is measured by first setting the movable wire so that the image shall be midway between it and the fixed wire, and then making it coincide with the latter. If, however, the image is very close to the wire, the first setting cannot be made with precision. In this case the telescope is clamped, and one of the single wires of the Z. D. micrometer is set alternately above and below the image of the horizontal collimator wire at a distance equal, by estimation, to that of the vertical fixed wire from the vertical image.

The telescope being again pointed toward the zenith, the observer looks into collimator A, and sets it independently on collimator B. Another set of measures is then made like the first. The mean result of the first and last set is taken as the concluded distance of image A from the middle wire.

Error of Level.—Two modes of determining this constant may be employed, namely—

(1.) Measurement of the distance between the middle wire and its image reflected from mercury when the telescope is pointed toward the nadir. This method was not used during the present year.

(2.) Use of the sprit level. In each determination by this method four readings of the level are made, the latter being reversed between each pair of readings. The constant difference in the results of the two methods seems to be very small.

The separate results of the individual determinations of collimation and level errors are given at the end of this introduction.

Zenith Point Correction.—During the year 1868, this constant was determined by observations of nadir point.

The use of the collimators for this purpose was entirely discontinued after June 1, 1867, it being found that the nadir observations could be made in the day time nearly as well as at night. The process was the same as that described in the previous volume.*

In observations of the nadir point, the microscope micrometers are read both before and after the measures with the Z. D. micrometer. The reading of the latter for coincidence of the close pair of wires with their reflected images is deduced from pairs of readings when the wires are so set that a reflected image is seen alternately north and south of a wire at a distance equal by estimation to the distance between the wires, or from similar pairs made when the wires and their two images form three equidistant spaces. Generally, two determinations are made by each method and the mean of the results used.

EXPLANATION OF THE PRINTED OBSERVATIONS WITH THE TRANSIT CIRCLE.

General Remark.—In printing the observations the rule has been adopted to print every observation exactly as recorded by the observer, without alteration in any case whatever, and without addition, except in very rare cases, which are noticed at the foot of the page. If a record seems erroneous, the error is pointed out in the foot-notes if it appears necessary so to do. Where there is no reasonable doubt of the nature of an error, a corresponding correction is introduced at such stage of the reductions as is most convenient. It has not been found practicable to adhere to any invariable rule respecting the point of introduction of the correction.

---

* Washington Observations for 1866. Introduction, p. x.

Detailed Explanation.—The first three columns need no explanation.

Column "*Observer*" gives the initial of the observer, as follows:

N.—Professor S. Newcomb
H.—Professor A. Hall.
Ha.—Professor William Harkness.
E.—Professor J. R. Eastman.
T.—Mr. Charles Thirion.
A.—Mr. Cleveland Abbe.
F.—Mr. Edgar Frisby.

Column "*Weight*" indicates the quality of the observation as estimated by the observer. The weights are arranged on a scale from 1 to 5 as follows:

1 indicates a very bad or unsatisfactory observation.
2 indicates a poor one.
3 indicates an average one.
4 indicates a good one.
5 indicates a very good one.

The weights depend mainly upon the definition, steadiness, and distinctness of the image. When two numbers are given in this column the first refers to the observation of transit, the second to that of zenith distance.

Seconds of Transit over Wires.—In the case of stars more than 5° from the pole, the times of transit usually recorded are those over the nine wires B_1 to B_3, C_2 to C_4, D_1 to D_3, which are regarded as the wires for regular observation. If the observation is irregular the wires observed can nearly always be inferred from the intervals between the transits. A frequent case is that of a transit over set C, and only one of the sets B or D. The former is then pushed aside one column from the middle to make room for the latter, so that a transit over B and C is found in columns I to VIII, and one over C and D in columns II to IX. Stars within 5° of the pole are observed by eye and ear, generally over the five wires of set C. The seconds are then found in columns III to VII. Transits below the pole are recorded in an order the reverse of that actually observed, so that any one wire is found in the same column it would occupy if the transit were above the pole.

Mean Wire.—The imaginary wire to which all the observations are reduced to find the times given in this column is the mean of the nine regular wires mentioned above. When these wires are all observed their mean is taken. In other cases each wire is reduced separately and the mean of the reduced times taken. In most cases these reductions are facilitated by Tables I and II*, which give for each standard polar star, and for each degree of N. P. D. exceeding 30°, the reduction from each individual wire frequently used to the standard mean wire. In broken observations of the sun and planets, this reduction is further corrected for motion of object in R. A., as given in the Ephemeris. In the case of the moon the reduction is computed from Tables III and IV†, which are founded on Airy's formula. Table III gives, for the latitude of Washington, the logarithm of the factor

$$\frac{\sin \text{☽'s Geoc. Z. D.}}{\sin \text{☽'s App. Z. D.}}$$

Table IV gives the logarithm of the factor

$$\frac{60\text{m.} + \text{I}}{60\text{m}}(1 + a)$$

I being the increase of the moon's mean time of transit in one hour of terrestrial longitude, as found in section "Moon Culminations" of the American Ephemeris, and a the ratio of acceleration of sidereal on solar time.

Correction for Instrument.—In this column is given the sum of the corrections for collimation, level and azimuth. The table of adopted instrumental constants will be found at the end of the introduction. (Table A.)

In the first column of this table we have the mean date, and, where necessary to the identification of short intervals, the tenth of a day. Where no tenth is added, the day commences with the tour of duty of the observer, generally about 3^h earlier than the commencement of the astronomical day. The constants for *n*th day at 21^h mean time will therefore be found in the line $n + 1$.

---

* Found in the Washington Observations for 1866, pp. xxix and xxx

† Ibid.

Column *c* gives the adopted constant of collimation, concluded from the observations of collimation error, already explained, and corrected for diurnal aberration. This constant is a function of the temperature, decreasing by $0^s.01$ for every rise of 3° Fahrenheit in the temperature. The adopted constants are therefore made to depend on the mean temperature of the atmosphere during each day, roughly derived from the Meteorological Journal.

Column *b* gives the adopted level constant derived from the separate observations of level already explained. When transits of the reflected images of stars are observed, it is essential that the level constant should be known with precision, in order that they may be compared with transits observed directly. The level error has therefore been determined with more care on the dates of such observations.

Column *a* gives the adopted horizontal azimuth of the instrument. It has been derived almost entirely from the observed transits of the standard polar stars, Polaris, δ Ursæ Minoris, and λ Ursæ Minoris in the following way:

If double transits of any of those stars were observed by one observer, the azimuth generally depends on them alone. When no such pair of transits was available, the azimuth is the mean result of all the single transits. The computation was, in all cases, conducted as follows: the time of each observed transit to be used for azimuth was first corrected for collimation, level, and clock error. A sufficiently close value of the latter correction was derived from transits of equatorial stars. The time of transit thus corrected was compared with a computed right ascension of the star. On discussing the observations of the two years previous, it was found that there were well-marked personal differences between the right ascension of Polaris deduced from the work of the different observers. The computed right ascensions were therefore obtained by applying to the positions of the American Ephemeris corrections depending on the observer, as shown in the following table. In the case of Ha, E, and F, no data for the correction were available; the correction employed is, therefore, that deemed nearest the absolute truth.

Observer.	Polaris.	δ Urs. Min.	51 Cephei.	λ Urs. Min.
	s.	*s.*	*s.*	*s.*
N.	+ 0.8	− 0.4	+ 0.6	− 0.4
Ha., E., or F. . .	+ 1.0	0.0	+ 1.0	0.0
T.	+ 2.2	+ 0.6	+ 1.6	+ 1.2
A.	+ 1.1	. .	+ 0.9	. .

The difference between the corrected time of transit and the computed right ascension of the star was considered as due to azimuth, a value of which constant was deduced by multiplying the difference by the proper factor. In case of a pair of opposite transits, the mean result is adopted for the day. This mean is nearly independent of the adopted right ascension of the star, since a change in this element will produce opposite and nearly equal effects upon the two azimuths.

In a very few cases the tabular positions of ε Ursæ Minoris were used in the computation of azimuth.

Among the printed azimuths those which depend on adopted right ascensions and those which are interpolated from other days are distinguished by being inclosed in brackets. Where a variable azimuth is employed, the coefficient of *t* to the right of the azimuth column shows the daily change. This change being necessarily somewhat uncertain, it is found convenient to use an aliquot part of the number of hours in a day in the adopted values. The dates "t_0 for azimuth" show the mean day and tenth of a day and the sidereal hour to which the value of the azimuth in column *a* corresponds.

Table V* gives a condensed summary of factors by which the instrumental constants must be multiplied to obtain the correction to the time of transit, which will serve for the general purpose of verification. The tables in actual use are much more extensive, giving the required corrections for each degree of Z. D. and each .01 of the instrumental constants.

---

* Found in Washington Observations for 1866, p. xxxii.

The *Apparent Clock Correction* is given only for direct observations of stars of the American Ephemeris within 40° of the equator. It is found by subtracting the sum of columns ***mean wire*** and ***instrument*** from the computed apparent right ascension of the star. The latter is found by applying to the positions of the Ephemeris the corrections derived from the four years' observation with the transit instrument, 1862 to 1865 inclusive. They are found in Table B.

Adopted Clock Correction.—The apparent clock corrections derived from all the observations made by one observer in the course of his observing day are added up, and the mean taken. This mean is supposed to correspond to the mean of the times of observations. Both means are given in table C, which also exhibits the computations of clock rate. The first column of this table gives the mean date, to which is added the tenth of a day when the time falls in the forenoon. The next two columns give the mean sidereal hour to the nearest tenth, and the mean clock correction. The small letters after the latter indicate the observers from whose observations the corrections were derived. In the next column the means are corrected for personal equation, and, in some instances, errors of an integral number of seconds in the counting clock.

The personal equation is derived from all the observations made during a period of three or six months. Equations of condition are formed by interpolating two corrections depending on the same observer at an interval not exceeding three, or, at the utmost, four days, on the supposition of a uniform rate, and comparing the interpolated values with the corrections given by other observers. The uniformity of the clock rate was such that all needful accuracy could be obtained by this method. The corrections to be applied to the clock corrections to reduce them to a uniform standard were thus found to be as follows:

	N.	H.	Ha.	E.	T.	A.	F.
	s.	*s.*	*s.*	*s.*	*s.*	*s.*	*s.*
January 1 to June 9 . . .	− 0.04	0.00	0.00	0.00	+ 0.06	− 0.04	. .
June 12 to September 18 . .	+ 0.05	. .	+ 0.05	− 0.17	+ 0.04	. .	+ 0.01
September 19 to December 31	− 0.03	− 0.08	0.00	− 0.07	+ 0.06	. .	+ 0.03

In the next column we have the daily rates for the intervals of the determinations, which are found by dividing the changes of reduced correction by the intervals.

Next, we have adopted daily rates for each series of observations, which are derived from the observed rates preceding and following. In this determination a greater weight is given to a rate depending on an interval of one day than to one depending on a greater or less interval. Moreover, where there is much uncertainty in the rate, preference is given to multiples of 3 or 6 in adopting a rate.

The Adopted Clock Corrections are obtained by carrying the mean error for the observer forward or backward through his series of observations with the adopted rate. The occasional corrections for isolated observations are obtained by interpolating the corrected error between the nearest dates on each side, and applying personal equation.

The Apparent Right Ascension is formed by applying the adopted clock and instrumental corrections to the time of transit over mean wire. It is, therefore, in all cases the right ascension of that part of the object actually observed.

Column *Miscellaneous Corrections* gives—

α. In the case of stars whose apparent positions are given in the American Ephemeris, the corrections to the right ascensions in the Ephemeris given by the observation.

β. In the case of other stars, the reduction to the mean position for the fictitious epoch 1870.0. This reduction is computed with the constants of precession, nutation, and aberration employed in the American Ephemeris, and no proper motion is applied.

γ. When only one limb of a planet is observed, the sidereal time of its semidiameter passing the meridian, as taken from the American Ephemeris, is given in this column.

Passing now to the right-hand page, the first column contains the number for reference.

During the year 1868, the clamp-circle A, by which the instrument had to be set, was turned to the east, while the circle accurately read was to the west. The reading of the first circle, A, was approximately Z. D. S. *minus* four minutes, while the other read Z. D. N., the sum of the two readings being always 359° 56′. As it was desirable to have the circle readings employed in computation always increase toward the south, the printed circle division is not that of circle B, but of circle A, which, as usual, is nearly always a certain even number of minutes. If the circle division here recorded be C, the divisions of circle B on which the microscope micrometers were actually set will be—

For microscope I, $359^\circ\ 56' - \mathrm{C} - 45^\circ$;
For microscope II, $359^\circ\ 56' - \mathrm{C} + 45^\circ$;
For microscope III, $359^\circ\ 56' - \mathrm{C} + 135^\circ$;
For microscope IV, $359^\circ\ 56' - \mathrm{C} + 225^\circ$;

the reading for the horizontal microscope, generally used as the argument, being 359° 56′—C.

Next we have the readings of the micrometers of the four microscopes of the west pier. As it was always intended to set the circle so that these micrometers should read 10 revolutions and some small number of seconds, their entire revolutions are not generally recorded unless their reading falls without the limits of 9*r*. 20″ and 10*r*. 20″.

The next six columns give the readings of the zenith distance micrometer. The entire revolutions are deduced from the position of the double movable wires on the toothed scale in the focus of the telescope. The center of the field, as marked by the double fixed wires, corresponds to 30 revolutions. Columns 1, 2, 3, 4, and 5 give the thousandths of a revolution, as read from the micrometer head for the different bisections of the object by the micrometer. The vertical wires at which the bisections were made may be inferred as follows:

For stars of more than 20° polar distance the columns 1–5 correspond to wires I, II, IV, VI, and VII.

For stars within 5° of the pole they refer to wires C_1–C_5.

For stars between 5° and 20° polar distance they refer to wires B_1, B_3, IV, D_1, and D_3, when the observer was N, and to wires I to VII in the cases of other observers. But the wires in question were nearly always indicated by the observer, and his indication will be found in the foot-notes, the words "bisections at sets B and D" indicating that they were made at B_1, B_3, D_1, D_3.

When the bisections were not made at the regular wires, a note will be found at the foot of the page stating at what wires, or at what minutes and seconds of clock time, the bisections were made.

The zenith point correction is derived entirely from the last column in the observations of the nadir point and collimators, the varying correction being interpolated between the times of its separate determination in such a way as to give its most probable value for each celestial observation. If the difference of consecutive determinations, or between three determinations on the same day, did not amount to half a second, the mean result was generally used throughout. When the difference exceeded this amount, the varying series was made to approach each determination within an amount which increased with the discrepancy of the determinations.

The apparent zenith distance south is formed of the sum of the following quantities:

1. The mean circle reading taken equal to the expression

$$\text{Circle division A} + (10r.\ 10'' - \mathrm{M})$$

M being the mean reading of the microscopes, and 10*r*. 10″ a conveniently assumed arbitrary number, eliminated through the zenith point.

2. The correction for mean reading of zenith distance micrometer. The value of this correction is

$$\mathrm{R}\,(\mathrm{M} - 30 \text{ rev.}) + 4'$$

R being the value in arc of one revolution of the micrometer, and M the mean micrometer reading. The constant 4′ is added to make the correction positive. This correction may be deduced from Table VI of the preceding volume by subtracting the result from 7′.

3. The reduction to the meridian on account of deviation of the path of the star from a great circle. This correction depends upon the polar distance of the star and its hour angle, or the vertical wire at which it was observed. It was taken from Table VIII,* to which is added the constant 1″.80 to make it generally additive. When the bisections were made by clock time, the correction was taken from the tables in the Appendix to the Washington Observations for 1845.

4. In the case of unsymmetrical observations, the corrections for inclination of wires and motion

---

* Washington Observations for 1866, p. xxxiii.

of object. The inclination was determined from time to time by comparing the micrometer readings of great numbers of stars at the first and last vertical wires. It was undisturbed and sensibly constant during the year. Its amount is given on page 3 of the "Observations."

5. In the regular cases in which wire A or B was used, the corrections for the distance of these wires from the middle pair. These corrections are found on page 3 of the "Observations."

6. The zenith point correction in the preceding column.

At the beginning of 1867 the heads of the microscope micrometer screws were so adjusted that the mean correction for periodic inequalities of the screws should be very small. This correction was therefore not afterward applied.

The corrections for flexure and division errors are not applied in the reductions, it being intended to apply them once for all to the concluded mean places of the stars and the apparent places of the planets.

The next column gives the reading of the sympiesometer. The readings of the external thermometer, barometer, and its attached thermometer, corresponding to occasional readings of the sympiesometer, and serving as a check upon it, are found at the foot of the page.

A series of these readings is selected from time to time, and the correction to the logarithm of the refraction depending on the barometer and thermometers is computed from each observation by means of the refraction tables found in the Appendix to the Washington Observations for 1845, using only four places of decimals. Each result is compared with the corresponding reading of the sympiesometer, to obtain the correction to the latter. The following mean table of corrections was formed by a curve from several months of observation, and used throughout the year, no change being found in the instrument.

S.	Correction.	S.	Correction.
200	+ 10	600	+ 5
250	9	650	6
300	8	700	7
350	6	750	8
400	5	800	9
450	4	850	10
500	3	900	11
550	4	950	11

The reading of the sympiesometer being corrected from this table, we have the correction to the fourth place of decimals in the logarithm of the refraction depending on the density of the air. The mean difference between the results of the sympiesometer and the barometer and thermometers is about 0.0004.

The apparent north polar distance is formed by adding the apparent zenith distance south, corrected for refraction to the colatitude in case of a direct observation, or subtracting it in case of a reflection observation. The adopted colatitude is

$$51^\circ\ 6'\ 21''.2.$$

The column of miscellaneous corrections contains the following quantities:

α. In case of stars of the American Ephemeris, the apparent correction to the north polar distance there given.

β. In case of other stars the reduction of the apparent north polar distance to the mean north polar distance at the fictitious epoch, 1870.0—using the constants of the American Ephemeris, and omitting proper motion.

γ. In the case of planets other than the Moon, the correction for parallax, in computing which the Sun's mean equatorial horizontal parallax has been taken equal to

$$8''.85.$$

In the case of the Moon the corrections for parallax and semidiameter will be found at the foot of the page. They are both computed from the data of the American Ephemeris, pp. 341–344, the adopted formula for parallax being

$\sin p' = [9.999430] \sin \pi \sin (Z.\ P$ [illegible] tion $- 11'\ 14''.5)$

$$p = p' \pm \delta p.$$

π being the interpolated value of the [illegible] l p [illegible] l correction taken from Table XI of the Appendix to the W [illegible]

OBSERVATIONS OF THE NADIR POINT MADE TO DETERMINE THE ZENITH POINT CORRECTION OF THE TRANSIT CIRCLE.

The first column gives the mean day and tenth of a day, and the sidereal hour. The time of observation is thus, as a general rule, fixed within an hour. Failures on the part of the observer to record the exact hour are, however, very frequent.

In column "Object" "Nadir" signifies an observation of the nadir point made by measuring the position of the reflected image of the zenith distance micrometer wire, when the telescope is pointed downward over the mercury basin.

The readings of the microscope micrometers are those taken from their heads when their wires are set on the divisions corresponding in the case of the nadir to 180° 0′ of the west horizontal microscope.

These divisions are really 45°, 135°, etc., but for convenience the reading of the horizontal microscope is used as the fundamental argument. The printed readings are the mean of the two readings usually made.

The readings of the zenith distance micrometer are those which correspond to coincidence of the mean wire with its reflected image, determined in the way before described.

A correction of one quarter of a revolution has to be applied to these readings, because the index read was distant a quadrant from that employed in celestial observations.

CORRECTIONS TO THE RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF THE AMERICAN EPHEMERIS, GIVEN BY INDIVIDUAL OBSERVATIONS OF STARS WITH THE TRANSIT CIRCLE. (P. 341-359.)

Here are found (1) the date of each observation, and (2) the initial of the observer. The latter is given to facilitate any discussion of personal peculiarities.

Next follows the correction to the right ascension. This is copied without change from the last column of the left-hand page of the observations. In the case of clock stars, it is not put down unless it depends either on three other clock stars, or on one or two stars distant more than six hours in right ascension.

In this and the following columns a colon signifies that the result is doubtful; and *r* that it is rejected on account of discordance, and the fraction $\frac{1}{2}$ that half-weight is assigned to it in taking the mean.

In the next column we have the correction to the polar distance, also copied from the last column of the observations, without change except for erroneous micrometer revolutions.

The mean corrections in R. A. and N. P. D. are taken without applying any correction whatever. The results thus found for N. P. D. still require the following corrections, which were not applied in the reductions:

1. For error of division.
2. For flexure.
3. For possible constant error in zenith point.
4. For error of assumed latitude.

The correction for error of division may be deduced from the table for circle B, given in § 72 of the description of the Transit Circle, the argument of the table being

$$\left.\begin{array}{r} 51^\circ.1 + \text{Dec.} - i \times 90^\circ \\ \text{or } 51^\circ.1 - \text{N. P. D.} + i \times 90^\circ \end{array}\right\} \text{ For direct observations.}$$

$$\left.\begin{array}{r} \text{and } 38^\circ.9 - \text{Dec.} + i \times 90^\circ \\ \text{or } 38^\circ.9 + \text{N. P. D} - i \times 90^\circ \end{array}\right\} \text{ For reflection observations.}$$

i being a whole number to bring the argument into the first quadrant. From this table, the correction for the nadir point, corresponding to 180° of the finding microscope, comes out $+0''.30$. As this correction has not been applied, it must be subtracted from all the division corrections. Since the circle reading increases from the zenith toward the north, the sign of the correction to N. P. D. must be changed for direct observations, and left unchanged for reflection observations.

The concluded correction for division is under the mean "correction to the ephemeris" for each star. Under this again, in the line Flex, &c., is given the sum of all the other systematic corrections. As one of these corrections is derived from a comparison of the direct and reflection observations, the next step will be the discussion of that comparison.

This comparison is conducted on the same plan as in the two former years. In column D we have the result of the direct observations, corrected only for error of division. The small figure following each result indicates the weight, which is computed from the formula

$$\text{Wt.} = \frac{17n}{n + 16}$$

n being the number of observations. The only remaining known instrumental errors which can affect D−R are that part of the flexure which depends on the sine of the zenith distance, and the curvature of the level surface, by reflection from which the star is observed. These have the same values as in 1867, and are as follows:

	s.
Flexure correction to Direct results . .	+0.06 sin Z.
Flexure correction to Reflection results .	−0.06 sin Z.
Curvature of level in Reflection results .	+0.16 sin Z.
Total correction to Reflection results . .	+0.10 sin Z.
Correction to D−R	−0.04 sin Z.

The values of this last correction are found in the column "Sine Flex., etc.," the corrected value of D−R and the weight of the result in the two columns following.

COMPARISON OF NORTH POLAR DISTANCES, FROM OBSERVATIONS MADE DIRECTLY AND BY REFLECTION DURING 1868.

Star.	Z. D.	D.	R.	D−R.	Sine flex., etc.	Correction D−R.	Wt.
NORTH STARS.	°	"	"	"	"	"	
Polaris, S. P.	307	− 0.29_{14}	− 0.86_{3}	+ 0.57	+ 0.03	+ 0.60	3
Polaris	310	+ 0.07_{14}	− 0.60_{3}	+ 0.67	+ 0.03	+ 0.70	3
κ Cephei	322	− 0.72_{6}	− 2.20_{3}	+ 1.48	+ 0.03	+ 1.51	2
γ Cephei	322	+ 0.21_{3}	− 2.86_{3}	+ 3.07	+ 0.03	+ 3.10	2
9 Draconis	322	− 1.68_{3}	− 0.82_{2}	− 0.86	+ 0.03	− 0.83	1
5 Ursæ Minoris	323	− 2.72_{5}	− 2.62_{3}	− 0.10	+ 0.03	− 0.07	2
β Ursæ Minoris	324	− [illegible]	− 2.78_{4}	+ 1.30	+ 0.02	+ 1.32	2
79 Draconis	326	+ 0.60[illegible]	− 2.61_{5}	+ 3.21	+ 0.02	+ 3.23	3
ψ¹ Draconis	327	+ 0.62_{4}	− 1.73_{4}	+ 2.35	+ 0.02	+ 2.37	2
11 Cephei	328	− 0.22_{3}	− 2.57_{4}	+ 2.35	+ 0.02	+ 2.37	2
κ Draconis	328	− 2.20_{3}	− 2.10_{3}	− 0.10	+ 0.02	− 0.08	2
λ Draconis	329	− 2.26_{5}	− 2.50_{3}	+ 0.24	+ 0.02	+ 0.26	2
β Cephei	329	− 1.17_{3}	− 4.47_{5}	+ 3.30	+ 0.02	+ 3.32	2
ω Draconis	330	− 2.43_{5}	− 4.32_{2}	+ 1.89	+ 0.02	+ 1.91	1
δ Draconis	331	− 0.55_{3}	− 3.45_{3}	+ 2.90	+ 0.02	+ 2.92	2
α Camelopardi	333	+ 0.18_{3}	− 1.07_{4}	+ 1.25	+ 0.02	+ 1.27	2
ι Cephei	333	− 1.67_{4}	− 2.46_{3}	+ 0.79	+ 0.02	+ 0.81	2
α Draconis	334	− 2.21_{3}	− 3.30_{5}	+ 1.09	+ 0.02	+ 1.11	2
α Ursæ Majoris	336	− 1.70_{3}	− 1.72_{4}	+ 0.02	+ 0.02	+ 0.04	2
α Cephei	336	+ 0.38_{6}	− 3.56_{5}	+ 3.94	+ 0.02	+ 3.96	3
α Cassiopeæ	343	+ 0.79_{5}	− 1.29_{3}	+ 2.08	+ 0.01	+ 2.09	2
γ Ursæ Majoris	344	− 1.10_{6}	− 0.67_{2}	− 0.43	+ 0.01	− 0.42	2
γ Draconis	347	− 0.64_{7}	− 1.40_{4}	+ 0.76	+ 0.01	+ 0.77	3
η Ursæ Majoris	349	− 0.73_{8}	− 1.32_{5}	+ 0.59	+ 0.01	+ 0.60	3
α Persei	350	+ 0.69_{3}	− 2.98_{3}	+ 3.67	+ 0.01	+ 3.68	2
ι Ursæ Majoris	350	− 0.73_{7}	− 1.29_{3}	+ 0.56	+ 0.01	+ 0.57	2
τ Herculis	352	+ 0.21_{5}	− 1.53_{2}	+ 1.74	+ 0.01	+ 1.75	1
α Aurigæ	353	+ 1.46_{4}	− 0.86_{4}	+ 2.32	0.00	+ 2.32	2
α Cygni	354	+ 1.15_{8}	− 1.26_{4}	+ 2.41	0.00	+ 2.41	3

COMPARISON OF NORTH POLAR DISTANCES, &c.—Continued.

Star.	Z. D.	D.	R.	D−R.	Sine flex., etc.	Correction D−R.	Wt.
SOUTH STARS.	°	″	″	″	″	″	
β Tauri	10	-0.83_{9}	-0.14_{3}	−0.69	−0.01	−0.70	2
α Andromedæ	11	$+0.42_{8}$	$+0.45_{6}$	−0.03	−0.01	−0.04	3
β Geminorum	11	-0.37_{11}	-0.86_{2}	+0.49	−0.01	+0.48	2
ε Bootis	11	-0.63_{8}	-1.01_{2}	+0.38	−0.01	+0.37	2
α Coronæ Borealis	12	$+0.83_{7}$	$+1.16_{8}$	−0.33	−0.01	−0.34	3
ε Leonis	15	$+0.68_{3}$	$+1.05_{2}$	−0.27	−0.01	−0.28	1
α Arietis	16	$+0.37_{7}$	$+0.01_{3}$	+0.36	−0.01	+0.35	2
δ Leonis	18	-0.32_{5}	$+0.05_{4}$	−0.37	−0.01	−0.38	2
γ Leonis	18	$+0.54_{6}$	-0.12_{3}	+0.66	−0.01	+0.65	2
β Arietis	19	-0.27_{7}	$+0.05_{4}$	−0.32	−0.01	−0.33	3
α Bootis	19	$+1.28_{11}$	$+0.66_{6}$	+0.62	−0.01	+0.61	3
η Bootis	20	-1.04_{8}	-0.37_{3}	−0.67	−0.01	−0.68	2
β Leonis	24	$+0.72_{7}$	$+1.13_{3}$	−0.41	−0.02	−0.43	2
η Piscium	24	-0.39_{4}	$+0.24_{3}$	−0.63	−0.02	−0.65	2
α Herculis	24	$+0.23_{7}$	-0.77_{2}	+1.00	−0.02	+0.98	2
α Pegasi	24	$+1.63_{7}$	$+0.85_{6}$	+0.78	−0.02	+0.76	3
γ Pegasi	24	$+1.19_{8}$	$+0.20_{4}$	+0.99	−0.02	+0.97	3
ζ Aquilæ	25	-0.28_{7}	-0.32_{4}	+0.04	−0.02	+0.02	3
α Ophiuchi	26	$+0.04_{7}$	$+0.61_{3}$	−0.57	−0.02	−0.59	2
α Leonis	26	$+0.72_{6}$	$+1.03_{2}$	−0.31	−0.02	−0.33	2
ε Delphini	28	-0.39_{7}	-1.82_{4}	+1.43	−0.02	+1.41	3
γ Aquilæ	29	-0.17_{9}	-1.42_{4}	+1.25	−0.02	+1.23	3
ζ Pegasi	29	-0.66_{6}	-0.02_{6}	−0.64	−0.02	−0.66	3
ε Pegasi	30	$+0.32_{7}$	-0.57_{2}	+0.89	−0.02	+0.87	2
α Aquilæ	30	-0.28_{9}	$+0.08_{3}$	−0.36	−0.02	−0.38	2
α Orionis	32	-0.63_{6}	$+0.07_{3}$	−0.70	−0.02	−0.72	2
α Serpentis	32	$+1.17_{9}$	$+0.28_{5}$	+0.89	−0.02	+0.87	3
β Aquilæ	33	$+0.45_{7}$	-1.63_{3}	+2.08	−0.02	+2.06	2
α Canis Minoris	33	$+0.18_{11}$	$+0.25_{3}$	−0.07	−0.02	−0.09	2
ι Piscium	34	$+0.66_{7}$	-0.23_{6}	+0.89	−0.02	+0.87	3
α Ceti	35	-0.99_{7}	-0.79_{4}	−0.20	−0.02	−0.22	3
δ Aquilæ	36	$+0.35_{6}$	-0.50_{4}	+0.85	−0.02	+0.83	2
π Aquarii	38	-0.29_{8}	-1.56_{8}	+1.27	−0.03	+1.24	2
η Virginis	39	-0.94_{4}	$+0.83_{2}$	−1.77	−0.03	−1.80	1
α Aquarii	40	$+0.79_{7}$	-0.85_{4}	+1.64	−0.03	+1.61	3
α Hydræ	47	$+0.94_{8}$	$+1.07_{3}$	−0.13	−0.03	−0.16	2
ι Aquilæ	47	-1.15_{7}	-1.40_{3}	+0.25	−0.03	+0.22	2
β Libræ	48	-0.44_{7}	-0.02_{3}	−0.42	−0.03	−0.45	2
ζ Ophiuchi	49	$+0.22_{5}$	$+0.03_{2}$	+0.19	−0.03	+0.16	1
α Virginis	49	-0.85_{9}	$+0.49_{4}$	−1.34	−0.03	−1.37	3

For further investigation the mean value of D—R is taken for each interval of 10° of Z.D., with the result exhibited in the following table. The corresponding results for 1867 are exhibited for the sake of comparison:

1867.			1868.		
Z. D. S.	D—R.	Wt.	Z. D. S.	D—R.	Wt.
°	"		°	"	
311	+ 0.87	29	309	+ 0.65	6
321	+ 1.09	34	323	+ 1.21	9
330	+ 0.89	44	330	+ 1.83	22
340	+ 0.72	16	340	+ 1.70	9
350	+ 0.96	24	351	+ 1.64	16
11	— 0.18	28	11	— 0.07	12
22	— 0.27	46	20	+ 0.20	27
30	— 0.26	60	30	+ 0.40	32
40	— 0.48	26	38	+ 0.59	11
48	— 0.33	49	48	— 0.47	10

The instrument having been reversed at the beginning of 1868 without changing the zenithal reading, and the same circle afterward used in the opposite position, it will be seen that the position of the instrument, relatively to the vertical, the position of the observer, and the circle divisions corresponding to any zenith distance south of the one year, are the same with those which correspond to the same zenith distance north of the other year. The corresponding instrumental and personal errors ought therefore to be the same. Therefore, if D—R proceeds solely from invariable personal and instrumental errors, the value of that quantity corresponding to any zenith distance south of the one year, ought to be the same with that corresponding to the same zenith distance north of the other year, the algebraic sign being reversed because the errors are counted in opposite directions relatively to the instrument. A glance at the table shows that this condition is by no means fulfilled, the algebraic sums of the corresponding values of D—R which ought to vanish, being constantly positive, and generally amounting to more than 1". It follows either that the cause which produces D—R changed between the two years, or that it is found in the different atmospheric or other conditions on the north and on the south side of the instrument.

The values of D—R are far from being as regular in 1868 as in 1867, but they exhibit the same general peculiarity pointed out in previous years, namely, that the most marked change occurs at the zenith, and that the variations at different zenith distances, on the same side of the zenith, are far less than the sudden change at the zenith. As in former years, the general result is that the north polar distances proper, that is to say, reflected polar distances measured from the reflected pole, and direct polar distances measured from the direct pole, agree very closely till we get to the zenith, when the former suddenly become greater by an amount exceeding one second. When thus reduced to the form of measured distances from the pole, the discordances during the three years the instrument has been in use are shown in the following table:

Z. D. S.	N. P. D. direct, minus N. P. D. reflected.		
	1866.	1867.	1868.
°	"	"	"
310	— 0.36	— 0.03	— 0.91
320	+ 0.01	+ 0.19	— 0.35
330	— 0.12	— 0.01	+ 0.27
340	+ 0.85	— 0.18	+ 0.14
350	+ 0.11	+ 0.06	+ 0.08
10	— 0.84	— 1.08	— 1.63
20	— 1.02	— 1.17	— 1.36
30	— 0.93	— 1.16	— 1.16
40	— 0.52	— 1.38	— 0.97
50	— 0.91	— 1.22	— 2.03

We will treat these discordances in the same way as in former years, assuming that the mean of D and R is correct, that D−R has a constant value on each side of the zenith until we approach within 5° of that point, and that between the limits 355° and 5° the change is progressive and uniform. We then have for the mean values of D−R:

North of the zenith D−R = + 1.″56
South.................. + 0.21

The cosine flexure is the same as in 1867, except that the sign is changed. The total correction to the reduced north polar distances is:

To direct results..............Div. + 0″.06 sin Z + 0″.56 cos Z + $a - \delta\varphi$
To reflection results...........Div. + 0″.10 sin Z + 0″.56 cos Z − $a - \delta\varphi$

Where a = − 0″.78 for zenith distances between 185° and 355°
a = − 0″.10 for zenith distances between 5° and 175°
$\delta\varphi$ = correction to latitude, determined by the condition that the polar distances determined on the two sides of the pole must agree.

INVESTIGATION OF CORRECTION TO ADOPTED LATITUDE FROM THE OBSERVATIONS OF 1868.

The arrangement of the following table is substantially the same as in the preceding volume. As before, the small subscript figures mark the weights of the various results, which are determined as in the comparison of direct and reflection results:

Star.	Dec.	Seconds of N. P. D.				$2\delta\varphi$.	$2W.\delta\varphi$.
		U. Dir.	U. Ref.	U.	S. P.		
	°	″	″	″	″	″	″
λ Ursæ Minoris	89	-0.40_{9}	. .	-0.40_{9}	-0.97_{10}	-1.37_{5}	− 6.8
Polaris	89	-0.39_{14}	$+0.46_{3}$	-0.24_{17}	-0.67_{16}	-0.91_{8}	− 7.3
51 (H) Cephei	87	-0.52_{5}	. .	-0.52_{5}	-1.35_{8}	-1.87_{3}	− 5.6
δ Ursæ Minoris	87	-1.46_{11}	. .	-1.46_{11}	$+0.51_{8}$	-0.95_{5}	− 4.8
32¹ Camelopardi	84	-20.91_{4}	-20.11_{1}	-20.75_{5}	$+20.54_{5}$	-0.21_{2}	− 0.4
32² Camelopardi	84	-2.69_{3}	-2.21_{1}	-2.57_{4}	$+0.90_{5}$	-1.67_{2}	− 3.3
ε Ursæ Minoris	82	-0.44_{7}	$+0.13_{1}$	-0.36_{8}	-0.07_{2}	-0.43_{2}	− 0.9
4 (H) Draconis	78	-2.50_{5}	. .	-2.50_{5}	$+0.41_{2}$	-2.09_{1}	− 2.1
κ Cephei	77	-1.09_{6}	-1.04_{3}	-1.07_{9}	-0.56_{3}	-1.63_{2}	− 3.3
48 Cephei	77	-1.88_{5}	. .	-1.88_{5}	-0.30_{5}	-2.18_{2}	− 4.4
γ Cephei	77	-0.16_{3}	-1.70_{3}	-0.93_{6}	-1.00_{2}	-1.93_{1}	− 1.9
9 (H) Draconis	76	-2.05_{3}	$+0.35_{2}$	-1.09_{5}	$+0.36_{5}$	-0.73_{2}	− 1.5
5 Ursæ Minoris	76	-3.09_{5}	-1.45_{3}	-2.48_{8}	$+1.14_{6}$	-1.34_{3}	− 4.0
50 Draconis	75	-3.51_{4}	. .	-3.51_{4}	$+0.80_{3}$	-2.71_{2}	− 5.4
Groombridge 966	75	$+0.47_{2}$	. .	$+0.47_{2}$	$+0.93_{2}$	$+1.40_{1}$	+ 1.4
β Ursæ Minoris	75	-1.84_{6}	-1.60_{4}	-1.74_{10}	$+0.56_{3}$	-1.18_{2}	− 2.4
21 Cassiopeæ	74	-2.40_{4}	. .	-2.40_{4}	$+0.91_{4}$	-1.49_{2}	− 3.0
79 Draconis	73	$+0.25_{6}$	-1.42_{5}	-0.51_{11}	-0.68_{3}	-1.19_{2}	− 2.4
γ Ursæ Minoris	72	-0.56_{4}	. .	-0.56_{4}	-2.07_{2}	-2.63_{1}	− 2.6
κ Draconis	71	-2.54_{3}	-0.90_{3}	-1.72_{6}	$+2.46_{4}$	$+0.74_{2}$	+ 1.5
d Ursæ Majoris	70	-0.32_{2}	. .	-0.32_{2}	$+0.68_{4}$	$+0.36_{1}$	+ 0.4
λ Draconis	70	-2.59_{5}	-1.30_{3}	-2.11_{8}	$+0.74_{4}$	-1.37_{3}	− 4.1
β Cephei	70	-1.50_{3}	-3.27_{5}	-2.61_{8}	-0.11_{2}	-2.72_{2}	− 5.4
ε Draconis	70	-1.09_{4}	. .	-1.09_{4}	$+1.79_{3}$	$+0.70_{2}$	+ 1.4
22 Camelopardi	69	-1.44_{5}	. .	-1.44_{5}	-1.05_{2}	-2.49_{1}	− 2.5
A Draconis	69	0.03_{5}	. .	-0.03_{5}	-1.44_{3}	-1.47_{2}	− 2.9
σ Ursæ Majoris	68	-2.61_{3}	. .	-2.61_{3}	$+0.51_{4}$	-2.10_{2}	− 4.2
ι Cassiopeæ	67	-0.49_{4}	. .	-0.49_{4}	$+0.09_{2}$	-0.40_{1}	− 0.4
α Camelopardi	66	-0.13_{3}	$+0.16_{4}$	$+0.04_{7}$	-1.25_{2}	-1.21_{2}	− 2.4
32 Ursæ Majoris	66	-1.33_{3}	. .	-1.33_{3}	$+0.95_{4}$	-0.38_{2}	− 0.8
α Cephei	62	$+0.10_{6}$	-2.30_{5}	-0.99_{11}	$+0.04_{2}$	-0.95_{2}	− 1.9
α Cassiopeæ	56	$+0.53_{5}$	$+0.01_{3}$	$+0.34$	-3.35_{0}	-3.01_{0}	0.0

This result differs 0″.10 from that of 1867. The agreement renders it probable that the adopted cosine flexure is quite near the truth. To find whether there is any systematic difference between the latitudes given by stars of different polar distances we divide the preceding list into three groups—the first ending with ε Ursæ Minoris, the second with κ Draconis, and third with α Cephei. The mean values of $\Delta\varphi$ are,

	″
From the first group	−0.54
second group	−0.66
third group..................	−0.57

It appears, therefore, that there is no systematic discordance of this kind, and that the constant correction

+0″.59

is to be applied to all the reduced north polar distances on account of error of assumed latitude.

The total corrections, from all causes, to be applied to the north polar distances, deduced from the preliminary reductions for the observations for 1868, are

To direct observations...	North of zenith............	+ 0″.06 sin Z + 0″.56 coz Z + Div. − 0″.19
	South of zenith.............	+ 0.06 sin Z + 0.56 coz Z + Div. + 0.69
To reflection observations	North of zenith............	+ 0.10 sin Z + 0.56 coz Z + Div. + 1.37
	South of zenith............	+ 0.10 sin Z + 0.56 coz Z + Div. + 0.69

The change of 0″.68 at the zenith in each class of observations is distributed through a space of 5° on each side of the zenith, within which space it is known to occur. The corrections are given for different north polar distances in the following table:

SYSTEMATIC CORRECTIONS TO BE APPLIED TO THE REDUCED NORTH POLAR DISTANCES OF OBJECTS OBSERVED DURING 1863, ON ACCOUNT OF DIVISION, FLEXURE, ERROR OF ASSUMED LATITUDE, AND DISCORDANCE OF DIRECT AND REFLECTION OBSERVATIONS.

N. P. D.	Div. correction.		Flexure, etc.		Total correction.	N. P. D.	Div. correction.		Flexure, etc.		Total correction.
	Dir.	Ref.	Dir.	Ref.	Dir.		Dir.	Ref.	Dir.	Ref.	Dir.
°	″	″	″	″	″	°	″	″	″	″	″
0	+ 0.18	− 0.22	+ 0.12	+ 1.64	+ 0.30	25	− 0.14	− 0.05	+ 0.28	+ 1.84	+ 0.14
1	0.18	0.28	0.13	1.65	0.31	26	0.16	0.08	0.29	1.85	0.13
2	0.24	0.37	0.14	1.66	0.38	27	0.20	0.08	0.29	1.85	0.09
3	0.30	0.42	0.15	1.67	0.45	28	0.23	0.08	0.30	1.86	0.07
4	0.30	0.43	0.15	1.68	0.45	29	0.22	0.08	0.31	1.87	0.09
5	+ 0.30	− 0.37	+ 0.16	+ 1.69	+ 0.46	30	− 0.19	− 0.07	+ 0.31	+ 1.87	+ 0.12
6	0.31	0.31	0.17	1.71	0.48	31	0.18	0.06	0.32	1.88	0.14
7	0.37	0.30	0.17	1.72	0.54	32	0.22	0.05	0.32	1.88	0.10
8	0.43	0.30	0.18	1.73	0.61	33	0.27	0.03	0.32	1.88	0.05
9	0.42	0.30	0.19	1.74	0.61	34	0.27	− 0.02	0.33	1.89	0.06
10	+ 0.37	− 0.24	+ 0.19	+ 1.75	+ 0.56	35	− 0.26	+ 0.01	+ 0.33	+ 1.89	+ 0.06
11	0.28	0.18	0.20	1.76	0.48	36	0.22	0.05	0.33	1.89	0.07
12	0.22	0.18	0.20	1.76	0.42	37	0.14	0.10	0.34	1.90	0.11
13	0.16	0.18	0.21	1.77	0.37	38	− 0.06	0.15	0.34	1.90	0.20
14	0.15	0.17	0.22	1.78	0.37	39	+ 0.01	0.16	0.35	1.91	0.28
15	+ 0.18	− 0.16	+ 0.23	+ 1.79	+ 0.41	40	+ 0.01	+ 0.15	+ 0.35	+ 1.91	+ 0.36
16	0.19	0.15	0.24	1.80	0.43	41	0.01	0.14	0.36	1.92	0.36
17	0.15	0.14	0.24	1.80	0.39	42	0.03	0.11	0.36	1.92	0.39
18	0.11	0.13	0.25	1.81	0.36	43	0.04	0.08	0.36	1.92	0.40
19	0.08	0.11	0.25	1.81	0.33	44	0.04	0.06	0.37	1.92	0.41
20	+ 0.06	− 0.10	+ 0.26	+ 1.82	+ 0.32	45	+ 0.03	+ 0.06	+ 0.37	+ 1.93	+ 0.40
21	+ 0.03	0.08	0.26	1.82	0.29	46	0.03	9.06	0.37	1.93	0.40
22	− 0.04	0.04	0.27	1.82	0.23	47	0.08	0.10	0.44	1.86	0.52
23	0.10	0.02	0.27	1.83	0.17	48	0.12	0.14	0.51	1.79	0.63
24	− 0.12	− 0.03	+ 0.28	+ 1.84	+ 0.16	49	+ 0.12	+ 0.14	+ 0.58	+ 1.73	+ 0.70

SYSTEMATIC CORRECTIONS TO BE APPLIED TO THE REDUCED NORTH POLAR DISTANCES OF OBJECTS OBSERVED DURING 1868, &c.—Continued.

N. P. D.	Div. correction.		Flexure, etc.		Total correction.	N. P. D.	Div. correction.		Flexure, etc.		Total correction.
	Dir.	Ref.	Dir.	Ref.	Dir.		Dir.	Ref.	Dir.	Ref.	Dir.
°	"	"	"	"	"	°	"	"	"	"	"
50	+ 0.07	+ 0.07	+ 0.64	+ 1.66	+ 0.71	110	+ 0.06	− 0.10	+ 0.83	+ 1.07	+ 0.89
51	0.00	0.00	0.71	1.57	0.71	111	+ 0.03	0.08	0.82	1.06	0.85
52	− 0.07	− 0.07	0.78	1.51	0.71	112	− 0.04	0.04	0.82	1.06	0.78
53	0.14	0.12	0.85	1.44	0.71	113	0.10	0.02	0.81	1.05	0.71
54	0.14	0.12	0.91	1.40	0.77	114	0.12	0.03	0.80	1.04	0.68
55	− 0.10	− 0.08	+ 0.98	+ 1.33	+ 0.88	115	− 0.14	− 0.05	+ 0.79	+ 1.03	+ 0.65
56	0.06	0.03	1.05	1.26	0.99	116	0.16	0.08	0.78	1.02	0.66
57	0.06	0.03	1.05	1.26	0.99	117	0.20	0.08	0.77	1.01	0.57
58	0.06	0.04	1.05	1.26	0.99	118	0.23	0.08	0.77	1.00	0.54
59	0.08	0.04	1.05	1.26	0.97	119	0.22	0.08	0.76	0.99	0.54
60	− 0.11	− 0.03	+ 1.06	+ 1.27	+ 0.95	120	− 0.19	− 0.07	+ 0.75	+ 0.98	+ 0.56
61	0.14	0.01	1.06	1.27	0.92	121	0.18	0.06	0.74	0.97	0.56
62	0.15	0.01	1.06	1.27	0.91	122	0.22	0.05	0.73	0.97	0.51
63	0.16	− 0.01	1.06	1.27	0.90	123	0.27	0.03	0.72	0.96	0.45
64	0.15	+ 0.06	1.05	1.27	0.90	124	0.27	− 0.02	0.71	0.95	0.44
65	− 0.10	+ 0.14	+ 1.05	+ 1.26	+ 0.95	125	− 0.26	+ 0.01	+ 0.70	+ 0.94	+ 0.46
66	0.05	0.22	1.05	1.26	1.00	126	0.22	0.05	0.69	0.93	0.47
67	0.01	0.26	1.05	1.26	1.04	127	0.14	0.10	0.68	0.93	0.54
68	− 0.02	0.27	1.05	1.26	1.07	128	− 0.06	0.15	0.66	0.92	0.60
69	+ 0.03	0.27	1.04	1.26	1.07	129	+ 0.01	0.16	0.65	0.91	0.66
70	+ 0.05	+ 0.22	+ 1.04	+ 1.25	+ 1.09	130	0.01	0.15	0.65	0.90	0.66
71	0.06	0.18	1.04	1.25	1.10	131	+ 0.01	+ 0.14	+ 0.65	+ 0.89	+ 0.66
72	0.07	0.19	1.04	1.25	1.11						
73	0.08	0.22	1.03	1.25	1.11	328	− 0.06	− 0.04	− 0.18	+ 1.38	− 0.24
74	0.08	0.23	1.03	1.24	1.11	329	0.08	0.04	0.17	1.39	0.25
75	+ 0.08	+ 0.20	+ 1.03	+ 1.24	+ 1.11	330	0.11	0.03	0.16	1.40	0.27
76	0.08	0.16	1.03	1.24	1.11	331	0.14	− 0.01	0.15	1.41	0.29
77	0.05	0.14	1.02	1.23	1.07	332	− 0.15	+ 0.01	− 0.14	+ 1.41	− 0.29
78	0.03	0.12	1.02	1.23	1.05	333	0.16	0.01	0.13	1.42	0.29
79	0.02	0.10	1.01	1.23	1.03	334	0.15	0.06	0.13	1.43	0.28
80	+ 0.04	+ 0.04	+ 1.01	+ 1.22	+ 1.05	335	0.10	0.14	0.12	1.44	0.22
81	0.08	− 0.03	1.00	1.22	1.08	336	0.05	0.22	0.11	1.45	0.16
82	0.10	0.06	1.00	1.22	1.10	337	− 0.01	+ 0.26	− 0.10	+ 1.46	− 0.11
83	0.11	0.08	0.99	1.21	1.10	338	+ 0.02	0.27	0.09	1.47	0.07
84	0.13	0.11	0.99	1.21	1.12	339	0.03	0.27	0.08	1.48	0.05
85	+ 0.14	− 0.15	+ 0.98	+ 1.21	+ 1.12	340	0.05	0.22	0.07	1.49	− 0.02
86	0.15	0.19	0.98	1.20	1.13	341	+ 0.06	+ 0.18	− 0.06	+ 1.50	+ 0.00
87	0.16	0.16	0.97	1.20	1.13	342	0.07	0.19	0.05	1.51	0.02
88	0.17	0.15	0.97	1.19	1.14	343	0.08	0.22	0.04	1.52	0.04
89	0.18	0.16	0.97	1.19	1.15	344	0.08	0.23	0.03	1.53	0.05
90	+ 0.18	− 0.22	+ 0.96	+ 1.18	+ 1.14	345	0.08	0.20	− 0.01	− 1.54	0.07
91	0.18	0.28	0.96	1.18	1.14	346	+ 0.08	+ 0.16	0.00	1.55	+ 0.08
92	0.24	0.37	0.95	1.18	1.19	347	0.05	0.14	0.00	1.56	0.05
93	0.30	0.42	0.95	1.17	1.25	348	0.03	0.12	+ 0.01	+ 1.57	0.04
94	0.30	0.43	0.94	1.17	1.24	349	0.02	0.10	0.02	1.58	0.04
95	+ 0.30	− 0.37	+ 0.94	+ 1.16	+ 1.24	350	0.04	+ 0.04	0.03	1.59	0.07
96	0.31	0.31	0.93	1.16	1.24	351	+ 0.08	− 0.03	+ 0.04	+ 1.60	+ 0.12
97	0.37	0.30	0.93	1.15	1.30	352	0.10	0.06	0.04	1.60	0.14
98	0.43	0.30	0.93	1.15	1.36	353	0.11	0.08	0.05	1.61	0.16
99	0.42	0.30	0.93	1.14	1.35	354	0.13	0.11	0.06	1.62	0.19
100	+ 0.37	− 0.24	+ 0.93	+ 1.14	+ 1.30	355	0.14	0.15	0.07	1.63	0.21
101	0.28	0.18	0.93	1.13	1.21	356	+ 0.15	− 0.19	+ 0.08	+ 1.64	+ 0.23
102	0.22	0.18	0.92	1.13	1.14	357	0.16	0.18	0.08	1.64	0.24
103	0.16	0.18	0.91	1.12	1.07	358	0.17	0.15	0.09	1.65	0.26
104	0.15	0.17	0.89	1.11	1.04	359	0.18	0.16	0.10	1.65	0.28
105	+ 0.18	− 0.16	+ 0.87	+ 1.10	+ 1.05	360	+ 0.18	− 0.22	+ 0.11	+ 0.29	+ 0.29
106	0.19	0.15	0.86	1.09	1.05						
107	0.15	0.14	0.86	1.09	1.01						
108	0.11	0.13	0.85	1.98	0.96						
109	+ 0.08	− 0.11	+ 0.84	+ 1.08	+ 0.92						

POSITIONS OF THE SUN, MOON, AND PLANETS, DEDUCED FROM OBSERVATIONS, WITH THE TRANSIT CIRCLE.

When both limbs of an object presenting a fully illuminating disk were observed, the right ascension here given is that of the mean of the two limbs, as found in column "Apparent R. Ascension" of the observations.

When only one full limb was observed, the right of ascension of the center is found by applying the sidereal time of semidiameter passing meridian, as given in the column "Miscellaneous Corrections," without correction except for the sun. From a discussion of all the semidiameters of the sun determined by each observer during the year 1868, it appears that the following corrections are necessary to reduce the semidiameters of the American Ephemeris to the standards of the several observers:

Observer.	Sidereal time of semidiameter passing meridian.	Vertical semidiameter.
	s.	"
N.	− 0.082	− 1.90
Ha.	− 0.080	− 0.3:
E.	− 0.016	− 0.02
T.	− 0.044	+ 0.08
A.	− 0.066	− 0.58
F.	+ 0.009	− 0.68

The correction corresponding to the observer was applied whenever only one limb of the sun was observed.

When one of the limbs observed was defective, the observed difference of right ascension of limbs was multiplied by the computed ratio of this difference to the true semidiameter, and the observed semidiameter thus deduced was applied to the right ascension of the full limb to obtain that of the center. The adopted formulæ for the computation are as follows: Put

i=elongation of earth and sun as seen from planet.

b=cos i.

δ, δ'=declinations of planet and sun.

A=difference of their right ascensions.

θ=angle which the line of cusps makes with the meridian.

f, f'=factors by which measured horizontal and vertical diameters must be multiplied to obtain true semidiameter.

To find f we then have

$$\tan\theta=\frac{\cos\delta\tan\delta^1}{\sin A}-\frac{\sin\delta}{\tan A}$$

When the planet is gibbous

$$g=\cos\theta\sqrt{b^2+\tan^2\theta}=\cos\theta'' \text{ when } \sin\theta''=\cos\theta\sin i$$

$$g'=\sin\theta\sqrt{b^2+\cot^2\theta}=\cos\theta' \text{ when } \sin\theta'=\sin\theta\sin i$$

$$f=\frac{1}{1+g}$$

$$f'=\frac{1}{1+g'}$$

When the illuminated disk is a crescent,

$$g=\cos\theta; \qquad f=\frac{1}{1+g}$$

$$g'=\sin\theta; \qquad f'=\frac{1}{1+g'}$$

When the center of light of Mercury was observed, let ϵ be the reduction to true center. The value of ϵ was obtained from the empirical formulæ

$$n=\frac{(1-b)\,(5+b)}{12}$$

$$\text{in R. A.:}\quad \epsilon=\text{semidiam.}\times n\cos\theta$$

$$\text{in N. P. D.}\ \epsilon=\text{semidiam.}\times n\sin\theta$$

The north polar distances are reduced from the part actually observed to center in the same way with the right ascensions, and by the formulæ and numbers just given. The following further corrections are then applied:

1. The parallax in altitude found in the last column of the observations.

2. The corrections for division, flexure, latitude, and constant of zenith point, taken from the last column of the preceding table.

The columns of corrections always give, in the first place, the corrections to the positions given in the transit ephemeris of the American Ephemeris and Nautical Almanac. No transit ephemeris of the Moon being there found, the tabular right ascension is computed thus: the *observed right ascension of center*, considered as sidereal time, is reduced to Washington mean time, and the correction

$$5^h\ 8^m\ 12^s$$

applied to reduce it to Greenwich time. The co-ordinates are then interpolated to this moment from the Greenwich part of the Ephemeris.

When the polar distance only was observed, the mean time was taken immediately from the "Moon culminations" of the American Ephemeris.

The tabular place from Hansen's tables of the Moon is interpolated from the British Nautical Almanac in the same way.

The observed positions of Venus and Mars are also compared with Le Verrier's tables. The co-ordinates are here interpolated occasionally from the British Nautical Almanac, as a check, but in most cases are obtained by applying to the transit position of the American Ephemeris the differences between the positions for Greenwich noon given in the two Ephemerides.

The positions of Neptune are also compared with Newcomb's tables, the tabular positions being interpolated from the Appendix to the American Ephemeris for 1869.

In the list of observed positions of the small planets, the Washington mean time is computed from the observed right ascension. This is increased by $6^h\ 1^m.8$ to reduce it to Berlin time, and the "aberration time,"$-[0.9148]\Delta$, usually given in the Ephemeris, is subtracted. Thus we have the Berlin mean time at which the light left the planet. To this time the position given in the Ephemeris is interpolated.

The Ephemeris with which each observed position of the asteroids is compared, is indicated after its name, the following abbreviations being used:

B. Y.—Berliner Astronomisches Jahrbuch.
A. N.—Astronomische Nachrichten.

TABLE A.—COLLIMATION 1868.

Date.		Observer.	South. Image E.	North. Image W.	Coll. from observation.	τ	C_0.
1868.			r.	r.	s.	°	s.
February	3.0	N.	+ .035	− .157	− 0.086	22	− .159
	10.0	N.	+ .077	− .335	− 0.156	10	− .189
	17.9	N.	− .014	− .125	− 0.095	34	− .208
March	9.9	N.	− .019	− .147	− 0.109	48	− .269
	22.9	N.	− .121	.000	− 0.085	52	− .258
April	6	N.	+ .027	− .123	− 0.073	48	− .233
	20	N.	− .011	+ .027	− 0.017	53	− .194
	27	N.	− .069	+ .103	− 0.008	55	− .191
May	3	N.	− .001	+ .059	+ 0.004	60	− .194
	10.9	N.	+ 039	− .015	− 0.013	58	− .206
	24.9	N.	− .016	+ .106	+ 0.020	67	− .203
	31.9	N.	+ .043	.000	− 0.003	70	− .236
June	7.9	N.	− .028	+ .064	− 0.007	77	− .264
	14.9	N.	− .005	+ .063	+ 0.004	79	− .259
	28.9	N.	+ .058	+ .124	+ 0.066	76	− .187
	28.9	N.	− .018	+ .010	− 0.029	76	− .282
July	5.9	N.	+ .031	− .013	− 0.016	84	− .296
	12.9	N.	− .046	+ .118	+ 0.012	84	− .268
	19.9	N.	+ .044	+ .012	+ 0.003	87	− .287
	27.1	E.	− .049	+ .230	+ 0.067	80	− .200
	27.9	E.	− .140	+ .210	+ 0.011	77	− .246
August	2.9	E.	− .002	+ .166	+ 0.060	83	− .217
	9.9	E.	+ .015	+ .114	+ 0.041	80	− .225
	16.9	E.	− .042	+ .230	+ 0.072	76	− .183
	23.9	E.	+ .078	+ .214	+ 0.123	78	− .137
	30.9	E.	− .156	+ .354	+ 0.077	85½	− .208
September	7.1	N.	− .005	+ .213	+ 0.082	81	− .188
	14.1	N.	+ .012	+ .200	+ 0.084	75	− .166
	20.9	N.	+ .020	+ .102	+ 0.038	66	− .188
	30.9	N.	− .022	+ .096	+ 0.014	64	− .199
October	4.9	N.	− .015	+ .151	+ 0.045	64	− .168
	11.7	N.	+ .033	− .013	− 0.014	64	− .227
	19.9	N.	− .132	+ .140	− 0.020	55	− .203
November	2.1	N.	− .075	− .045	− 0.085	51½	− .256
	8.9	N.	+ .168	− .187	− 0.034	60	− .234
	15.9	N.	+ .126	− .242	− 0.083	50	− .250
December	1.9	N.	+ .065	− .215	− 0.101	38	− .228
	10.1	N.	+ .035	− .298	− 0.158	38	− .285
	13.9	N.	+ .009	− .275	− 0.159	32	− .266
	20.9	N.	− .047	− .194	− 0.146	43	− .289
	27.9	N.	+ .010	− .103	− 0.071	32	− .178

May 31.9. Found the wires not vertical; corrected them after this observation.
June 28.9. Adjusted after this observation.

TABLE B.—ADOPTED CORRECTIONS FOR COLLIMATION, LEVEL, AND AZIMUTH OF THE TRANSIT CIRCLE FOR 1868, CIRCLE EAST.

Date.		*c.*	*b.*	*a.*	
1868.		*s.*	*s.*	*s.*	
January	4.9	.00	+ .16	− 0.67	Circle west.
		.00	+ .16	− 0.32	
	30	− .11	+ .02	− 0.40	+ 0.48 (t − Jan. 30^{d}.4 at 7^{h}.)
	31	− .10	+ .12	− 0.27	
February	1	− .09	+ .13	− 0.24	
	2	− .08	+ .15	− 0.20	
	3	− .12	+ .16	− 0.14	
	6	− .08	+ .17	+ 0.20	
	7	− .12	+ .17	+ 0.38	
	11	− .11	+ .18	+ 0.12	
	12	− .09	+ .21	+ 0.05	
	13	− .08	+ .22	− 0.11	
	14	− .11	+ .22	− 0.04	
	15 *d.*	− .06	+ .20	− 0.04	
	17	− .08	+ .12	− 0.20:	
	18	− .09	+ .08	− 0.36	
	19	− .03	+ .06	− 0.35	
	22	− .10	+ .06	− 0.31	
March	10 *d.*	− .03	− .81	+ 0.23	
	16	− .02	+ .07	+ 0.02	
	18	− .06	+ .20	+ 0.64	*s.*
	19	− .10	+ .25	+ 0.34	− 0.48 (t − March 19^{d}.3 at 7^{h}.)
	23	− .05	+ .04	− 0.13	
	24	− .05	+ .02	− 0.20	
	30 *n.*	− .11	− .05	− 0.43	
	31	− .06	− .03	− 0.40	
April	1	− .03	− .07	− 0.34	
	3 *n.*	− .09	− .04	− 0.30	
	4 *d.*	− .05	− .04	− 0.25	
	6	− .09	− .03	− 0.40	
	8	− .07	− .06	− 0.52	
	17 *d.*	+ .01	− .06	− 0.10	
	18	− .01	− .06	− 0.03	
	21 *n.*	− .03	− .07	− 0.12	
	23	+ .02	− .08	− 0.17	
	24	− .02	− .06	− 0.15	
	27	+ .01	− .10	− 0.19	
	28	+ .03	− .09	− 0.16	
	30	+ .05	− .09	− 0.10	
May	1	+ .02	− .09	− 0.07	
	2	+ .04	− .05	− 0.07	
	4	.00	− .03	− 0.06	
	8	− .03	− .06	− 0.10	
	9	.00	− .06	− 0.28	
	11	− .01	− .07	− 0.26	
	12	.00	− .07	− 0.30	
	14	+ .02	− .06	− 0.30	
	16	+ .01	− .06	− 0.45	
	18	+ .01	− .05	− 0.17	
	21	+ .01	− .04	− 0.32	
	22	+ .03	− .06	− 0.30	
	25 *d.*	+ .03	− .04	− 0.22	
	26	+ .03	− .02	− 0.13	
	27 *d.*	+ .03	− .04	− 0.13	
	29 *d.*	+ .02	.00	0.00	
	30	+ .02	+ .03	+ 0.07	
	31	.00	+ .03	0.00	
June	1	− .02	+ .03	+ 0.09	
	4	− .04	+ .05	+ 0.08	
	5	− .03	+ .06	− 0.02	
	6 *d.*	− .01	+ .02	+ 0.10	
	8	− .01	.00	+ 0.18	
	9	− .01	.00	+ 0.24	
	12	− .02	.00	+ 0.05	
	13	− .01	+ .03	+ 0.05	
	15	+ .01	+ .03	+ 0.19 *d.* + 0.25 *n.*	
	17 *n.*	.00	+ .04	+ 0.40	
	18	.00	+ .09	+ 0.44	
	19 *d.*	+ .02	+ .09	+ 0.44	

TABLE B.—ADOPTED CORRECTIONS FOR COLLIMATION, &c.—Continued.

Date.		*c.*	*b.*	*a.*
1868.		*s.*	*s.*	*s.*
June	20 *d.*	+ .02	+ .09	+ 0.44
	22	.00	+ .14	+ 0.44
	23	.00	+ .11	+ 0.37
	24	.00	+ .12	+ 0.30
	25 *n.*	.00	+ .11	+ 0.23
	26	.00	+ .09	+ 0.17
	27	.00	+ .08	+ 0.08
	28	— .02	+ .07	+ 0.11
	29	— .03	+ .06	+ 0.23
July	1	— .02	+ .05	+ 0.30
	2	— .01	+ .07	+ 0.40
	3	— .01	+ .10	+ 0.40
	4	— .01	+ .13	+ 0.57
	6 *d.*	— .01	+ .13	+ 0.63
	7	.00	+ .13	+ 0.68
	8 *d.*	.00	+ .14	+ 0.74
	10 *n.*	— .02	+ .17	+ 0.58
	11	— .01	+ .13	+ 0.61
	13	+ .01	+ .12	+ 0.66
	14	+ .01	+ .10	+ 0.52
	15	+ .02	+ .13	+ 0.65
	16	+ .01	+ .16	+ 0.80
	17	.00	+ .18	+ 0.56
	18	.00	+ .14	+ 0.69
	21 *d.*	.00	+ .11	+ 0.66
	22	.00	+ .10	+ 0.60
	23	+ .02	+ .09	+ 0.52
	25	+ .02	+ .08	+ 0.50
	28	+ .06	+ .04	+ 0.20
	29	+ .06	+ .04	+ 0.30
	30	+ .06	.00	+ 0.20
	31	+ .06	+ .05	— 0.04
August	5	+ .05	+ .04	+ 0.35
	6	+ .06	+ .05	+ 0.56
	7	+ .05	+ .04	+ 0.39
	10	+ .05	— .09	+ 0.29
	12	+ .04	— .02	+ 0.46
	13	+ .03	— .05	+ 0.30
	14	+ .04	— .04	+ 0.10
	15	+ .05	— .04	+ 0.15
	17	+ .06	— .04	+ 0.26
	18	+ .07	— .05	+ 0.32
	19	+ .06	— .05	+ 0.48
	20	+ .06	— .05	+ 0.41
	22	+ .05	— .06	+ 0.26
	24	+ .05	— .06	+ 0.28
	26	+ .05	— .07	+ 0.18
	27	+ .06	— .06	+ 0.24
	29	+ .06	— .06	+ 0.24
	31	+ .06	— .06	+ 0.31
September	4	+ .06	— .05	+ 0.40
	5	+ .06	— .10	+ 0.16
	6 *n.*	+ .06	— .10	+ 0.16
	7	+ .06	— .10	+ 0.17 + 0.06
	8	+ .06	— .07	+ 0.17
	10	+ .09	— .06	+ 0.20
	11	+ .09	— .06	+ 0.30
	12 *d.*	+ .10	— .06	+ 0.40
	16	+ .04	— .11	+ 0.08
	17	+ .01	— .09	+ 0.16
	18	+ .01	— .15	— 0.12
	19	+ .03	— .15	— 0.33
	21	+ .02	— .17	— 0.45
	28	+ .05	— .08	— 0.17
	29 *d.*	+ .04	— .09	— 0.20
	30	+ .03	— .10	— 0.26
October	1	+ .04	— .14	— 0.37
	2	+ .03	— .13	— 0.30
	5	+ .03	— .13	— 0.34
	6	+ .02	— .12	— 0.30
	7	+ .03	— .12	— 0.30

TABLE B.—ADOPTED CORRECTIONS FOR COLLIMATION, &c.—Continued.

Date.		*c.*	*b.*	*a.*
1868.		s.	s.	s.
October	8	+ .02	− .12	− 0.28
	9	− .05	− .12	− 0.26
	12	− .03	− .12	− 0.40
	13	− .03	− .10	− 0.45
	16	− .04	− .12	− 0.40
	17	− .08	− .10	− 0.36
	19	− .03	− .10	− 0.56
	22	− .07	− .07	− 0.60
	23	− .09	− .07	− 0.49
	24	− .07	− .09	− 0.52
	26	− .05	− .09	− 0.57
	28	− .04	− .11	− 0.50
	29	− .06	− .08	− 0.36
	30	− .05	− .08	− 0.48
November	2	− .09	− .08	− 0.35
	3	− .08	− .08	− 0.40
	4	− .05	− .08	− 0.48
	5	− .05	− .08	− 0.63
	6	− .08	− .06	− 0.46
	7	− .06	− .06	− 0.55
	9	− .01	− .12	− 0.46
	10	− .01	− .10	− 0.44
	11	− .09	− .06	− 0.16
	12	− .10	− .03	− 0.19
	13	− .09	− .02	− 0.20
	14	− .06	− .02	− 0.40
	18	− .10	− .04	− 0.54
	19	− .08	− .03	− 0.54
	21	− .10	− .03	− 0.74
	23	− .10	.00	− 0.74
	24	− .10	− .03	− 0.56
	26	− .09	− .06	− 0.60
	27	− .11	− .03	− 0.65
	28	− .09	− .03	− 0.80
	30	− .09	− .03	− 0.80
December	1	− .12	− .02	− 0.63
	2	− .12	− .03	− 0.52
	3	− .12	− .03	− 0.52
	5	− .12	− .05	− 0.93
	8	− .16	− .03	− 0.82
	9	− .17	.00	− 0.75
	10	− .17	+ .07	− 0.55
	12	− .19	+ .10	− 0.31
	14	− .18	+ .10	− 0.54
	17	− .14	+ .05	− 0.60
	18	− .16	+ .05	− 0.60
	19	− .16	+ .05	− 0.60
	21	− .13	+ .05	− 0.75
	22	− .15	+ .05	− 0.80
	23	− .18	+ .10	− 0.57
	24	− .18	+ .14	− 0.52
	25	− .15	+ .18	− 0.52
	26	− .15	+ .20	− 0.52

September 7. The first azimuth was used till 22^h sid. time by mistake.

TABLE C.—ADOPTED CORRECTIONS AND RATES OF THE SIDEREAL CLOCK IN 1868.

Mean day and sidereal hour.			Clock correction from mean of observations.	Clock correction corr'd for personal equation.	Apparent rate between groups.	Adopted hourly rate.	Mean day and sidereal hour.			Clock correction from mean of observations.	Clock correction corr'd for personal equation.	Apparent rate between groups.	Adopted hourly rate.
1868.	*d.*	*h.*	*s.*	*s.*	*s.*	*s.*	1868.	*d.*	*h.*	*s.*	*s.*	*s.*	*s.*
					.000								
Jan.	4	3.5	− 5.14*a*	− 5.18		.000	Apr.	17	4.8	+30.85*n* (1)	+ 45.81		+ .045
					.000							+ .045	
	9	22.8	− 5.15*hl*	− 5.15		+ .006		18	4.8	+31.94*n*	+ 46.90		+ .043
					+ .012							+ .041	
	30	1.8	+ 0.93*t*	+ 0.99		+ .013		21	12.0	+36.22*n*	+ 50.18		+ .043
					+ .014							+ .044	
	30	11.8	+ 1.17*a*	+ 1.13		+ .014		23	8.2	+52.10*e*	+ 52.10		+ .020
					+ .014							+ .010	
	31	1.8	+ 1.27*t*	+ 1.33		+ .012		24	11.5	+52.42*a*	+ 52.38		+ .002
					+ .002							+ .029	
	31	6.7	+ 1.38*a*	+ 1.34		+ .012		27	11.5	− 5.48*n*	− 5.52		− .007
					+ .014								
Feb.	2	4.3	+ 1.94*t*	+ 2.00		+ .018		27.9	0.0	−14.46*a* (1)	− 14.50		+ .010
					+ .020								
	3	5.2	+ 2.53*n*	+ 2.49		+ .015		28	10.0	−14.43*e* (1)	− 14.43		+ .010
					+ .002								
	6	5.6	+ 2.60*e*	+ 2.60		+ .015		30	11.2	−14.01*n*	− 14.05		+ .011
					+ .022							+ .013	
	7	4.3	+ 3.14*a*	+ 3.10		+ .018	May	1	8.3	−13.74*n*	− 13.78		+ .012
					+ .013							+ .010	
	11	7.9	+ 4.40*a*	+ 4.36		+ .018		4	11.9	−12.98*n*	− 13.02		+ .008
					+ .022							+ .005	
	12	3.9	+ 4.80*h*	+ 4.80		+ .012		8	17.7	−12.49*a*	− 12.53		+ .006
					+ .004							+ .008	
	13	8.7	+ 4.91*e*	+ 4.91		+ .012		11	9.2	−11.99*n*	− 12.03		+ .007
					+ .018							+ .006	
	14	10.0	+ 5 40*a*	+ 5.36		+ .012		14	4.2	−11.60*n*	− 11.64		+ .010
					+ .002							+ .014	
	14.9	19.7	+ 5.38*e* (1)	+ 5.38		+ .009		16	13.9	−10.84*e*	− 10.84		+ .008
					+ .012							+ .003	
	17.9	18.5	+ 4.15*t* (1)	+ 6.21		+ .018		18	8.9	−10.93*n*	− 10.97		+ .004
					+ .025							+ .006	
	18	4.9	+ 6.51*a*	+ 6.47		+ .016		21	11.1	−10.47*n*	− 10.51		+ .005
					+ .012							+ .005	
	19	7.4	+ 6.78*h*	+ 6.78		+ .012		22	7.5	−10.43*a*	− 10.47		+ .005
					+ .010							+ .006	
	22	3.6	+ 7.53*n*	+ 7.49		+ .012		24.9	2.2	−10.01*n*	− 10.05		+ .005
					+ .013							+ .005	
Mar.	10	2.0	+12.89*a*	+ 12.85		+ .014		26	11.9	− 9.84*a*	− 9.89		+ .001
					+ .018							− .004	
	16	8.1	+15.48*h*	+ 15.48		+ .016		27	7.5	− 9.53*e*	− 9.53		
					+ .015							+ .009	
	18	9.1	+16.23*h*	+ 16.23		+ .016		30	13.4	− 9.20*e*	− 9.20		+ .010
					+ .017							+ .012	
	19	8.2	+16.62*e*	+ 16.62		+ .015		31	13.4	− 8.97*t*	− 8.91		+ .006
					+ .010							.000	
	23	9.0	+17.60*h*	+ 17.60		+ .012	June	1	9.4	− 8.87*n*	− 8.91		+ .002
					+ .012							+ .006	
	24	11.0	+17.96*a*	+ 17.92		+ .012		4	13.9	− 8.44*n*	− 8.48		+ .010
					+ .013							+ .016	
	30	12.0	+19.80*n*	+ 19.76		+ .013		5	13.3	− 8.11*e*	− 8.11		+ .008
					+ .013							− .003	
	31	9.4	+20.06*a*	+ 20.02		+ .011		6	4.9	− 8.21*t*	− 8.15		.000
					+ .008							+ .004	
Apr.	1	9.6	+20.20*h*	+ 20.20		+ .009		8	13.8	− 7.90*n*	− 7.94		+ .007
					+ .010							+ .012	
	3	9.0	+20.71*a*	+ 20.67		+ .008		9	15.2	− 7.65*e*	− 7.65		+ .002
					+ .002							− .005	
	3.9	0.2	+20.73*n*	+ 20.69		+ .007		12	12.5	− 7.88*e*	− 8.05		.000
					+ .011							+ .003	
	6	5.5	+21.29*n*	+ 21.25		+ .008		13	13.8	− 8.01*t*	− 7.97		.000
					+ .006							− .002	
	8	7.6	+21.60*n*	+ 21.56		+ .008		15	10.9	− 8.09*n*	− 8.04		− .002

TABLE C.—ADOPTED CORRECTIONS AND RATES OF THE SIDEREAL CLOCK IN 1868—Continued.

Mean day and sidereal hour.		Clock correction from mean of observation.	Clock correction corr'd for personal equation.	Apparent rate between groups.	Adopted hourly rate.	Mean day and sidereal hour.		Clock correction from mean of observation.	Clock correction corr'd for personal equation.	Apparent rate between groups.	Adopted hourly rate.
1868. *d.*	*h.*	*s.*	*s.*	*s.*	*s.*	1868. *d.*	*h.*	*s.*	*s.*	*s.*	*s.*
June 16	14.7	− 7.91*e*:	− 8.08:	− .002	− .005	July 29	17.8	+ 2.81*t*	+ 2.85	+ .013	+ .018
17	14.6	− 8.28*t*	− 8.24	− .007	− .007	30	18.0	+ 3.41*f*	+ 3.42	+ .024	+ .025
18	12.1	− 8.43*n*	− 8.38	− .007	− .011	31	18.5	+ 4.24*e*	+ 4.07	+ .027	+ .025
19	6.2	− 8.52*e*	− 8.69	− .017	− .014	Aug. 5	20.0	+ 5.94*t*	+ 5.98	+ .016	+ .010
20	3.7	− 8.96*t*	− 8.92	− .011	− .018	6	19.1	+ 6.14*f*	+ 6.15	+ .007	+ .009
22	10.4	−10.48*n*	− 10.43	− .026	− .028	7	19.4	+ 6.58*e*	+ 6.41	+ .011	+ 0.13
23	13.4	−11.09*e*	− 11.26	− .031	− .024	10	15.5	+ 7.50*f*	+ 7.51	+ .016	+ .011
24	13.5	−11.71*t*	− 11.67	− .017	− .018	12	14.5	+ 7.83*t*	+ 7.87	+ .008	+ .016
25	15.3	−12.20*n*	− 12.15	− .018	− .018	13	15.4	+ 8.40*f*	+ 8.41	+ .022	+ .020
26	14.0	−12.46*e*	− 12.63	− .017	− .017	14	15.1	+ 9.02*e*	+ 8.85	+ .018	+ .020
27	15.7	−13.07*t*	− 13.03	− .016	− .017	15	12.7	+ 9.31*t*	+ 9.35	+ .023	+ .022
28	13.7	−13.44*t*	− 13.40	− .017	− .017	17	20.5	+10.48*f*	+ 10.49	+ .020	+ .020
29	16.4	−13.97*n*	− 13.92	− .019	− .017	18	13.9	+11.03	+ 10.86	+ .021	+ .022
July 1	15.8	−14.67*t*	− 14.63	− .015	− .017	19	18.6	+11.47*t*	+ 11.51	+ .023	+ .024
2	12.2	−15.01*n*	− 14.96	− .016	− .022	20	21.7	+12.16*f*	+ 12.17	+ .024	+ .024
3	16.0	−15.55*e*	− 15.72	− .027	− .027	22	13.4	+13.03*t*	+ 13.07	+ .023	+ .022
4	10.9	−16.30*t*	− 16.25	− .028	− .028	26	19.1	+14.92*t*	+ 14.96	+ .019	+ .018
7	12.7	−18.16*e*	− 18.33	− .028	− .025	27	19.5	+15.37*f*:	+ 15.38:	+ .017	+ .018
8	7.7	−18.81*t*	− 18.77	− .023	− .030	29	20.6	+16.42*t*	+ 16.46	+ .022	+ .020
10	18.0	−20.58*e*:	− 20.75:	− .034	− .033	31	17.0	+ 0.37*f*	+ 0.38		+ .014
11	13.2	−21.42*t*	− 21.38	− .033	− .033	Sept. 4	23.0	+ 1.81*h*	+ 1.86	+ .014	+ .012
12.8	1.4	−22.62*t*	− 22.58	− .033	− .029	5	19.2	+ 2.05*t*	+ 2.09	+ .011	+ .012
13	10.6	−22.82*n*	− 22.77	− .021	− .030	6	1.0	+ 2.42*n*	+ 2.47	+ .013	+ .010
14	13.8	−23.57*e*	− 23.74	− .036	− .035	7	20.2	+ 2.56*f*	+ 2.57	+ .005	+ .006
15	9.9	−24.53*t*	− 24.49	− .037	− .040	8	21.9	+ 2.67*h*	+ 2.72	+ .006	+ .007
16	13.6	−25.71*n*	− 25.66	− .042	− .040	10	20.3	+ 3.10*h*	+ 3.15	+ .009	+ .010
17	16.5	−25.43*e*	− 26.60	− .035	− .040	11	11.7	+ 3.30*f*	+ 3.31	+ .010	+ 0.12
18	13.6	−27.60*t*	− 27.56	− .045	− .040	11	18.7	+ 3.39*h*	+ 3.44	+ .019	+ .018
22	12.8	− 0.32*t*	− 0.28		+ .020	12	11.9	+ 3.70*t*	+ 3.74	+ .018	− .016
23	16.9	+ 0.28*n*	+ 0.33	+ .022	+ .020	16	13.8	+ 4.86*t*:	+ 4.90:	+ .012:	+ .005
25	17.6	+ 1.17*t*	+ 1.21	+ .018	+ .018	16	19.3	+ 4.81*h*	+ 4.86	− .007	+ .005
28	16.6	+ 3.69*e*	+ 2.52	+ .018	+ .015	17	10.0	+ 5.00*f*:	+ 5.01:	+ .010	+ .009

TABLE C.—ADOPTED CORRECTIONS AND RATES OF THE SIDEREAL CLOCK IN 1868—Continued.

Mean day and sidereal hour.		Clock correction from mean of observation.	Clock correction corr'd for personal equation.	Apparent rate between groups.	Adopted hourly rate.	Mean day and sidereal hour.		Clock correction from mean of observation.	Clock correction corr'd for personal equation.	Apparent rate between groups.	Adopted hourly rate.
1868. *d.*	*h.*	*s.*	*s.*	*s.*	*s.*	1868. *d.*	*h.*	*s.*	*s.*	*s.*	*s.*
Sept. 17	20.6	+ 5.02*h*	+ 5.07	+ .006	+ .010	Nov. 4	19.2	+15.42*t*	+ 15.48	+ .020	+ .021
18	12.0	+ 5.25*t*	+ 5.29	+ .014	+ .012	5	23.5	+16.12*n*	+ 16.09	+ .022	+ .025
18	22.1	+ 5.36*h*		+ .009	+ .009	6	20.3	+16.72*n*	+ 16.69	+ .029	+ .020
19	11.9	+ 5.52*f*	+ 5.55		+ .010	6	2.5	+16.87*e*	+ 16.80	+ .020	+ .020
19	20.8	+ 5.58*h*		+ .011	+ .011	7	18.4	+17.17*t*	+ 17.23		+ .021
21	15.2	+ 6.07*t*	+ 6.13		+ .010	9	2.4	+18.47*n*	+ 18.44	+ .022	+ .020
21	20.4	+ 6.15*h*		+ .008	+ .010	9.9	13.4	+18.68*e*	+ 18.61	+ .015	+ .017
28	14.7	+ 7.52*f*	+ 7.55		+ .010	11	0.7	+19.23*t*	+ 19.29	+ .019	+ .022
28	19.8	+ 7.63*h*		+ .012	+ .012	12	23.2	+19.89*n*	+ 19.86	+ .026	+ .024
28.9	11.1	+ 7.74*t*	+ 7.80		+ .009	13	22.3	+20.43*e*	+ 20.36	+ .022	+ .023
30	17.9	+ 7.99*f*	+ 8.02	+ .007	+ .007	14	22.2	+20.87*t*	+ 20.93	+ .024	+ .023
Oct. 1	18.8	+ 8.15*t*	+ 8.21	+ .008	+ .008	18	23.4	+23.00*t*	+ 23.06	+ .022	+ .020
2	20.7	+ 8.46*n*	+ 8.43	+ .009	+ .009	19	0.1	+23.56*n*	+ 23.53	+ .019	+ .020
5	23.0	+10.04*n*	+ 9.01	+ .008	+ .006	21	17.6	+24.36*t*	+ 24.42	+ .021	+ .020
6	22.4	+ 9.09*f*	+ 9.12	+ .005	+ .005	23	17.7	+25.37*n*	+ 25.34	+ .019	+ .020
7	22.7	+ 9.21*t*	+ 9.27	+ .006	+ .007	23	4.8	+25.56*f*	+ 25.59	+ .022	+ .023
8.9	11.2	+ 9.59*n*	+ 9.56	+ .008	+ .008	24	1.6	+25.15*hl*	+ 26.07	+ .023	+ .021
9	13.0	+ 9.51*f*	+ 9.54		+ .008	26	3.1	+26.99*f*	+ 27.02	+ .019	+ .015
12	22.0	+10.17*n*	+ 10.14	+ .007	+ .010	27	9.4	+27.36*t*	+ 27.42	+ .013	+ .009
13	20.0	+10.35*f*	+ 10.38	+ .011	+ .010	30	3.6	+27.82*f*	+ 27.85	+ .006	+ .004
16	22.3	+10.91*f*	+ 10.94	+ .008	+ .007	Dec. 1	4.3	+27.86*t*	+ 27.92	+ .002	+ .007
17	22.8	+11.04*t*	+ 11.10	+ .007	+ .008	2	2.0	+28.18*f*	+ 28.21	+ .013	+ .012
18.9	11.4	+11.52*e*	+ 11.45	+ .010	+ .009	3	0.9	+28.50*n*	+ 28.47	+ .012	+ .010
22	20.3	+11.01*n*	+ 11.98	+ .007	+ .015	5	23.8	+28.88*hl*	+ 28.80	+ .007	+ .007
23	1.8	+12.47*f*	+ 12.50	+ .017	+ .013	5	0.6	+29.01*f*	+ 29.04		+ .006
24	22.0	+12.61*t*	+ 12.67	+ .009	+ .008	5	6.9	+28.93*t*	+ 28.99	+ .006	+ .006
26	23.3	+13.11*e*	+ 13.04	+ .007	+ .008	8	1.4	+29.41*f*	+ 29.44		+ .010
28	2.6	+13.43*t*	+ 13.49	+ .009	+ .008	9	19.6	+29.59*t*	+ 29.65	+ .012	+ .010
29	23.0	+13.72*e*	+ 13.65	+ .008	+ 0.12	10	4.0	+29.91*n*	+ 29.88	+ .007	+ .006
30	20.2	+13.96*f*	+ 13.99	+ .016	+ .014	12	20.0	+30.06*t*	+ 30.12	+ .006	+ .008
Nov. 2	10.2	+14.87*n*	+ 14.84	+ .010	+ .017	14	4.4	+30.86*n*	+ [illegible]	+ .011	+ .009
3	16.8	+15.03*e*	+ 14.96	+ .019:	+ .020	1		31.28*n*		.006	+ .006

TABLE C.—ADOPTED CORRECTIONS AND RATES OF THE SIDEREAL CLOCK IN 1868—Continued.

Mean day and sidereal hour.		Clock correction from mean of observation.	Clock correction corr'd for personal equation.	Apparent rate between groups.	Adopted hourly rate.	Mean day and sidereal hour.		Clock correction from mean of observation.	Clock correction corr'd for personal equation.	Apparent rate between groups.	Adopted hourly rate.
1868. *d.*	*h.*	*s.*	*s.*	*s.*	*s.*	1868. *d.*	*h.*	*s.*	*s.*	*s.*	*s.*
				+ .006						+ .006	
Dec. 18	1.0	+31.35*f*	+ 31.38		+ .009	Dec. 23	23.4	+32.72*t*	+ 32.78		+ .008
				+ .012						+ .011	
19	22.0	+31.57*t*	+ 31.63		+ .012	24	2.7	+33.14*n*	+ 33.11		+ .014
				+ .012						+ .016	
21	4.0	+32.30*n*	+ 32.27		+ .015	25	3.4	+33.47*f*	+ 33.50		+ .014
				+ .021						+ .012	
22	20.3	+32.58*f*	+ 32.61		+ .011	26	22.6	+33.68*t*	+ 33.74		+ .012

April 17. The Kessels clock having been taken down to be cleaned, the observations from then until the night of April 27 were made with the Mural clock.

April 24–27. Owing to the irregularity of the clock rates, the adopted rates are derived from the observations of the day.

April 28. The Kessels clock brought into use by Mr. Abbe this morning.

April 30. This morning the Kessels clock was stopped by the new minute spring put on the scape wheel. The spring was removed and the clock started again about 3^h sidereal time.

May 27. Only a single insufficient observation.

The following are isolated determinations by Professor Hall, each depending on a single star:

December	9	23.5	29.71
	10	23.5	29.75
	12	1.0	30.00
	18	1.2	31.35
	23	0.2	32.87

TABLE D.—ADOPTED CORRECTIONS, IN HUNDREDTHS OF SECONDS OF TIME, TO THE POSITIONS OF CLOCK-STARS IN THE AMERICAN EPHEMERIS FOR 1867.

α	Andromedæ	0	α	Virginis	+ 1
γ	Pegasi	− 2	ζ	Virginis	0
β	Ceti	+ 3	η	Bootis	− 3
ε	Piscium	− 5	α	Bootis	+ 1
θ^1	Ceti	0	ε	Bootis	− 1
η	Piscium	+ 5	α^2	Libræ	− 2
ο	Piscium	− 4	β	Libræ	− 1
β	Arietis	+ 1	μ^1	Bootis	0
α	Arietis	+ 1	α	Coronæ Borealis	0
65	Ceti	+ 3	α	Serpentis	0
γ	Ceti	0	ε	Serpentis	− 1
α	Ceti	+ 2	δ	Scorpii	0
ζ	Arietis	− 3	β^1	Scorpii	+ 5
η	Tauri	+ 1	δ	Ophiuchi	+ 2
ζ	Persei	0	α	Scorpii	+ 2
γ^1	Eridani	+ 3	ζ	Ophiuchi	− 5
γ	Tauri	+ 2	κ	Ophiuchi	+ 3
ε	Tauri	0	α^1	Herculis	0
α	Tauri	0	*b*	Ophiuchi	0
ι	Aurigæ	− 3	α	Ophiuchi	+ 1
11	Orionis	− 4	μ	Herculis	0
β	Orionis	+ 1	γ^2	Sagittarii	− 3
β	Tauri	− 1	μ^1	Sagittarii	− 2
δ	Orionis	− 2	η	Serpentis	+ 1
α	Leporis	− 2	1	Aquilæ	+ 4
ε	Orionis	+ 1	α	Lyræ	0
α	Columbæ	− 6	β	Lyræ	+ 2
α	Orionis	0	σ	Sagittarii	− 2
μ	Geminorum	0	ζ	Aquilæ	+ 4
γ	Geminorum	0	*d*	Sagittarii	− 8
α	Canis Majoris	− 7	δ	Aquilæ	+ 1
ε	Canis Majoris	− 2	κ	Aquilæ	0
δ	Geminorum	− 3	λ	Aquilæ	+ 1
α^2	Geminorum	+ 20	α	Aquilæ	+ 1
α	Canis Minoris	− 2	β	Aquilæ	0
β	Geminorum	0	τ	Aquilæ	− 9
φ	Geminorum	− 4	α^2	Capricorni	0
15	Argus	− 2	ε	Delphini	+ 1
ε	Hydræ	0	α	Cygni	0
κ	Cancri	0	μ	Aquarii	+ 2
α	Hydræ	0	ζ	Cygni	− 1
ε	Leonis	− 1	1	Pegasi	− 8
μ	Leonis	+ 5	β	Aquarii	0
α	Leonis	− 1	ξ	Aquarii	− 2
γ^1	Leonis	+ 2	ε	Pegasi	− 2
ρ	Leonis	− 4	μ	Capricorni	− 5
l	Leonis	+ 7	α	Aquarii	− 1
δ	Leonis	− 2	θ	Aquarii	− 1
δ	Crateris	0	π	Aquarii	− 1
τ	Leonis	+ 1	η	Aquarii	0
91	Leonis (*v*)	− 1	ζ	Pegasi	+ 4
β	Leonis	+ 1	λ	Aquarii	+ 6
ο	Virginis	− 6	α	Piscis Australis	− 1
η	Virginis	− 1	α	Pegasi	+ 1
β	Corvi	+ 6	ι	Piscium	− 2
12	Canum Venaticorum	+ 1	ω	Piscium	− 2
θ	Virginis	− 3			

THE MERIDIAN TRANSIT INSTRUMENT.

The observation of the Moon and planets having been transferred to the Meridian Circle, the Transit Instrument was employed in the observation of stars whose position in declination had been previously determined by the Mural Circle or the Prime Vertical Transit Instrument, observations of which instrument, in right ascension, were not deemed sufficiently accurate for publication. The method of observation was that used in previous years, but intermitted for the past two years with this instrument.

The transit system consists of five groups or tallies of vertical threads, and in addition to these there are three vertical threads, movable by a micrometer screw, and two stationary horizontal ones. With the clamp end of the axis to the east, the tallies are named in the order of the transit of stars above the pole A, B, C, D, and E.

The tally over which an object has been observed is shown by the inspection of the intervals between the threads. The individual threads of each tally are designated by the numbers 1, 2, 3, 4, 5, for A, C, and E, and 1, 2, and 3 for B and D respectively. One vertical thread, A_0, is outside of tally A, and another, E_6, is outside of E. These two, with A_5, B_1, C_3, D_3, and E_1, constitute a system over which transits with eye and ear may be conveniently observed.

From the mean of a number of observations of Polaris and δ Ursæ Minoris, the equatorial intervals between each thread and the mean of B_1, B_2, B_3, C_1, C_2, C_3, C_4, C_5, D_1, D_2, D_3, were found to be as follows, the notation corresponding to clamp east:

EQUATORIAL INTERVALS.

Thread.	Interval.	Thread.	Interval.	Thread.	Interval.	Thread.	Interval.	Thread.	Interval.
	s.		*s.*		*s.*		*s.*		*s.*
A_1	+35.628			C_1	+2.197	D_1	−11.869	E_1	−30.231
A_2	+34.493			C_2	+1.218	D_2	−12.950	E_2	−32.641
A_3	+33.084	B_1	+15.021	C_3	−0.003	D_3	−14.978	E_3	−33.888
A_4	+31.836	B_2	+12.966	C_4	−1.188			E_4	−35.137
A_5	+29.762	B_3	+11.808	C_5	−2.222			E_5	−36.365

The intervals for A_0 and E_6, not having been used, are not given.

The times of transit of all objects more than 5° distant from the pole were recorded by means of the Morse register.

INSTRUMENTAL ERRORS.

Aided by a collimating eye-piece, the error of level and collimation were obtained by reversing the instrument over a basin of mercury, and measuring with the micrometer-screw of the eye-piece the distance between the central thread and its image seen in the mercury. If we represent by 2Δ the distance of the central thread west of its image when the clamp end of the axis is east; by $2\Delta^1$, the same quantity, when the clamp is west; by p, the excess of the radius of the clamp-pivot divided by the distance between the pivots; and by $-r$ the reduction of the central thread to the mean of the system B_1, B_2, B_3, C_1, C_2, C_3, C_4, C_5, D_1, D_2, D_3, and by a the correction for diurnal *aberration* $= -0.^{s}016$ in this latitude, we have:

$$c = \tfrac{1}{2}(\Delta - \Delta^1) - p + r - a, \text{ for clamp east.}$$
$$c = -\tfrac{1}{2}(\Delta - \Delta^1) + p + r - a, \text{ for clamp west.}$$
$$b = -\tfrac{1}{2}(\Delta + \Delta^1) - p, \text{ for clamp east.}$$
$$b = -\tfrac{1}{2}(\Delta + \Delta^1) + p, \text{ for clamp west.}$$

The value of p, as determined in 1864, was $p = + 0^s.008$; the numerical value of r for the current year is $r = 0^s.00$. All the observations for determining the errors of collimation and their results are given in the subjoined table, in which r, the value of a revolution of the micrometer, is $1^s.5865$. When great changes occur in the values of c between consecutive dates, they have been caused by adjustment with the collimating screws.

Date.	2 Δ.	2 Δ¹.	C. E.	C. W.	Date.	2 Δ.	2 Δ¹.	C. E.	C. W.
1868.	r.	r.	s.	s.	1868.	r.	r.	s.	s.
March 18	−0.32	−0.70	+0.131	−0.163	August 9	−0.32	−0.33	−0.017	−0.015
March 31	0.25	0.55	0.099	0.131	August 27	0.24	0.40	+0.043	0.075
April 17	0.05	0.31	0.083	0.115	September 21	0.00	0.15	0.039	0.071
May 21	0.24	0.52	0.091	0.123	October 22	−0.18	−0.00	0.051	0.083
June 13	0.50	0.69	0.055	0.087	November 13	+0.25	+0.08	+0.047	−0.079
July 4	−0.62	−0.83	+0.063	−0.095					

When observations to determine the value of c are tolerably accordant on successive dates, a mean is adopted for the whole period of such accordance; and where the differences are too great to permit inference that they may be due to errors of observation, the changes are assumed to have been uniformly progressive.

The values used in the reductions are stated at the bottom of each page of the printed observations.

The distance which the line of collimation passes from the pole and the point in which the meridian intercepts the equator, are used instead of errors of level and azimuth. When the error of collimation is known, the first distance is directly obtained by observations of stars very near the pole, and may be represented by n. The second distance is determined by combining the value of n with the error of the level. Designating the latter by b, the latitude of the observatory by φ, and representing this second distance by m, we obviously have:

$$m = - n \text{ tangent } \varphi + b \text{ secant } \varphi;$$

and the correction applicable to the observed transit of any star, to reduce it to the meridian, will be obtained by the formula:

$$\text{Correction} = m + n \text{ tangent } \delta + c \text{ secant } \delta;$$

in which δ represents the apparent declination of the star.

An approximate clock error having been first obtained from one or more equatorial stars, the value of n was determined generally by comparing the time of transit of Polaris, δ Ursæ Minoris, λ Ursa Minoris, or 51 Cephei, with the right ascension given in the American Ephemeris and Nautical Almanac for the year 1870, reduced to the date of the observation.

The value of n, found in this manner and used in the reduction of the stars, is published in the table at the bottom of the page of the published observations, under the head of corrections, &c.

It will be readily seen that if m is neither large nor subject to great variation, it will be eliminated through the clock error. It has not been used separate from the clock error except when the instrument was used for regulating the mean time of the observatory, and is therefore not published in its usual place.

The clock error was obtained from the corrected transits of one or more of the standard stars, whose mean place for 1870.0 is given in the American Ephemeris.

The apparent place of these stars for the date was taken from the Ephemeris for 1868.

The clock used in observing during the year was that of Charles Frodsham.

EXPLANATION OF THE PRINTED OBSERVATIONS.

Column 1 contains the date and initial letter of the observer's name, the day commencing at apparent noon.

Column 2 contains the name of the object, or its approximate declination.

The following system for nomenclature was adopted:

1. By the constellation and Bayer letter there given.
2. By the constellation and Flamsteed number there given.
3. By their number in the catalogue.

Other stars found in published catalogues are designated by the name and number in the catalogue.

Column 3 contains the number for reference.

The following abbreviations occur:

O. Arg. N.—Oeltzen's Catalogue from Argelander's Northern Zones.

O. Arg. S.—Oeltzen's Catalogue from Argelander's Southern Zones.

Weisse (2) for Weisse's Catalogue from Bessel's Zones, from 15 to 25 degrees of north declination,

Some anonymous stars, used in the comparisons of the equatorial, are denominated by a number. followed by the letter W.

Columns 4 to 14, inclusive, contain the seconds and tenths of the transits over the several threads, as noted by the observer at the time, or as subsequently read from the chronographic record; but as there are twenty-one threads, over each of which observations were taken at different times, the numbers over the columns may not represent the thread at which a star was observed, and this can only become known by comparing the observation with the equatorial intervals.

Column 15 contains the minutes, seconds, and decimals of a second obtained by taking the mean of the preceding times of transits over the threads observed.

Column 16 contains the sum of the corrections necessary to reduce the numbers of the preceding column to the clock time at which the object crossed the great circle passing through the pole, and the point in which the line of collimation intersects the equator. It consists of two parts:

1. For broken observations of stars, from the mean given in column 15 to the mean of the threads B_1, B_2, B_3, C_1, C_2, C_3, C_4, C_5, D_1, D_2, D_3, by the formula—

$$R = \text{equatorial interval} \times \text{secant } \delta.$$

Or if the star was so near the pole that the difference between the sine and arc of the reduction was sensible—

$$\text{Sin R} = \text{sin equal int.} \times \text{sec. } \delta.$$

2. The correction for collimation and polar azimuth computed by the formula,

$$\text{Correction} = n \tan \delta + c \text{ sec. } \delta,$$

of which the method of obtaining the factors n and c has already been stated.

Column 17 contains the correction for clock errors, obtained as stated, and brought forward to the instant of observation by the rate.

Column 18 contains the apparent right ascension of the object observed, obtained from the sum of the three columns immediately preceding.

Column 19 contains the corrections applicable to the preceding column to reduce the observations of the stars to their mean places, 1870.0, or the instant when the sun's mean longitude was 280°. These were computed from "constants for the reduction of fixed stars," given in this volume, and in the preparation of which the coefficients are the same as those used in the American Ephemeris and Nautical Almanac. The corrections include no proper motions except those used in the list of time and azimuth stars.

There will be found at the foot of the page the adopted clock and instrumental corrections, observations of the reflected image of the middle thread, position of the clamp E or W, and such notes as the observations called for. The several observations of each fixed star reduced to its mean place for 1870.0 are collected in pages 365–397.

As a general rule, the results for the fundamental stars are not given when there were less than four observations in the group used for determining clock errors.

The magnitude of each star, when estimated by the observer at the time of observation, is given in the tables.

The observations of the year with this instrument were made and reduced by Professor Yarnall. The observations were copied by Captain Whiting and Professor Nourse, the computations were checked by Professor Beecher, and the list of mean places was made out by Mr. Frisby, "Aid."

THE MURAL CIRCLE.

During the year 1868 the Mural Circle was employed in observations of stars whose right ascension had been previously determined by the Transit Instrument, their determination in declination being necessary to complete their position, to be published hereafter in a General Catalogue.

MICROMETER AND TRANSIT WIRES.

The diaphragm inserted in October, 1864, was in use throughout 1868. The intervals of the threads were as follows:

Wire . .	I.	II.	III.	IV.	1.	2.	3.	4.	5.	VI.	VII.	VIII.	IX.
	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.
Interval .	+53.6	+40.6	+28.8	+15.7	+3.3	+1.6	0.0	−1.7	−3.5	−16.3	−28.8	−40.8	−52.9

The same value for the micrometer screw was used as during the last year: $r=31''.341$.

INSTRUMENTAL ADJUSTMENTS.

The following notes, bearing on the adjustment, &c., of the instrument, have been extracted from the observing books:

January 22. Cleaned and adjusted microscopes D and F.

February 17. Adjusted focus of micrometer F.

March 2. Found the graduated screw-heads of microscopes A and C rather loose; tightened them.

March 20. The telescope was moved on the circle so as to make the nadir reading =100°.

April 4. Adjusted the focus of the object glass; afterward adjusted the microscopes.

April 13. Adjusted the inclination of the horizontal threads.

June 8. The eye-piece struck against wood-work of screen.

July 13. Struck the eye-piece a slight blow.

October 7. Mr. Gardener cleaned the circle and repaired the telescope micrometer.

October 8. Adjusted the telescope micrometer head with reference to the comb.

October 30. Changed the azimuth.

THE NADIR POINT.

For determination of the nadir point a cap is provided which fits loosely over any of the eye-pieces of the telescope. Just above the eye-lens the cap has a plate of thin glass inclined at an angle of 45°. This arrangement has the advantage of enabling the observer to collimate without removing the eye-piece used in observation, and thereby both avoids the risk of injury to the threads and prevents the frequent admission of dust by air currents, &c.

The mode of observation is as follows: the circle telescope is so pointed that when the nadir divisions of the former are accurately under the zeros of the microscopes, the images of the horizontal threads in the field of the latter may be seen at a small distance from the threads themselves. The circle microscopes are read then, or at the conclusion of the reflection measures.

The micrometer reading for the true nadir being that which corresponds to the coincidence of each thread seen directly, with the image of the other seen by reflection, the images were alternately made to measure, on each side of the threads, spaces equal to their distance apart. As the nadir point thus determined always depends upon the same set of divisions of the circle, and is mad with the same part of the micrometer screw, it is uniformly affected with the errors of those sions and by any inaccuracy peculiar to that portion of the screw.

METHOD OF OBSERVING.

The method of observing was the same as in previous years, and consisted essentially in transferring the subdivision of the circle from the microscopes to the micrometer eye-piece. The circle was set so that the divisions nearest to the reading for the given declination were as accurately as possible under the zero of the microscopes. The circle microscopes were read either before or after the observation.

The observations of Professor Yarnall and Mr. Doolittle were made by bisecting the objects with the southern horizontal thread, whilst Mr. Frisby observed them at an equal distance from each of the horizontal threads. For bisection observations the nadir reading was corrected by the quantity $-0^{r}.120$, the estimated half distance of the horizontal threads, made from a great number of observations.

EXPLANATION OF THE PRINTED OBSERVATIONS.

Columns 1 to 3 and 7 to 12 need no explanation beyond that given in former years. The magnitudes in column 4 are those estimated by the observer at the time of observation.

Columns 5 and 6 show the number of micrometer readings, generally three for each star, and the transit threads over which these readings were made. When the number of micrometer readings does not correspond to the number of threads included between the limits given in column 6, it is understood that the observations were made at equal intervals between those limits.

Column 13 contains the mean of the six microscope readings.

Column 14 contains the mean of the observed micrometer readings.

Column 15 contains the adopted "nadir correction," expressed in micrometer revolutions. It is formed by substracting the excess of the micrometer reading above 30 revolutions from the excess of the mean circle reading above 270°, and after March 20, above 100°, the reading of microscope A when the telescope pointed to the nadir, that excess being first expressed in micrometer revolutions.

Column 16 gives the corrected meridian micrometer reading formed by applying the following corrections to column 14:

1. The nadir correction.

2. The reduction to the meridian. For observations made on any of the vertical wires, the reduction is given by the formula

$$\Delta m = -\frac{\sin^2 \frac{1}{2} h}{2 r \sin 1''} \tan \delta;$$

h being the equatorial interval in arc of the vertical wire, and r the value of one revolution of the micrometer. Expressing h in seconds of time, and putting for r its value, already given, this expression becomes

$$\Delta m = -[5.2405]\, h^2 \tan \delta,$$

the value of which, for different wires, is tabulated on pages xxxii, xxxiii of the Introduction to the Washington Observations for 1863.

For stars near the pole, the time having been recorded, this expression becomes

$$\Delta m = -\frac{225 \sin 1''}{4 r} (t - a)^2 \sin 2 \delta;$$

t being the true sidereal time of observation and a the right ascension of the star.

3. The correction of unsymetrical observations for inclination of the micrometer threads to the horizon. This was

January 1—April 4	$i = 0.00$
April 8–11	$i = +2.44\,h$
April 15—June 10	$i = 0.00$
June 10—December 25	$i = -0.17\,h$

i denoting the correction for inclination in thousandths of a micrometer revolution, and h the equatorial interval in seconds of time.

Columns 18, 19, and 20 contain the reading of the Newman barometer, its attached themometer, and the external thermometer. The external thermometer is designated No. 3 in the Appendix to the Washington Observations for 1845, page 54. It is placed outside of the north aperture, several inches beyond the wall, and is read by the help of a sextant telescope attached to the window frame.

Column 21, entitled "Instrumental corrections," contains the micrometer equivalent, or the difference between the corrected micrometer reading and 30 revolutions converted into arc. If the former quantity is denoted by m, the values in this column will be given by the formula,

$$\text{Corr.} = (30 \text{ rev.} - m)\, r$$

Column 22 contains the apparent zenith distance, equal to the sum of columns 13 and 21, diminished by 90° if the sum be greater than 90°, or subtracted from 90° if less. In the former case the result is marked S, as south; in the latter N, as north.

Column 23 contains the correction for refraction corresponding to the apparent zenith distance and the barometer and thermometer readings. This quantity is computed from Bessel's tables, as given in an expanded form in the Appendix to the Washington Observations for 1845. This correction, added to the apparent zenith distance, gives the corrected geocentric zenith distance, which is not printed.

The following corrections are applied to the thermometer readings for irregularities in the bore of the tube:

CORRECTIONS OF THERMOMETER.

Ther. scale.	Corr.	Δ log. ref.	Ther. scale.	Corr.	Δ log. ref.
°	°		°	°	
30	−0.04	+.00004	66	+0.20	−.00016
32	− .06	+ 5	68	+ .25	− 21
34	− .11	+ 10	70	+ .22	− 18
36	− .08	+ 7	72	+ .12	− 10
38	− .05	+ 4	74	+ .03	− 3
40	− .02	+ 2	76	− .01	+ 1
42	− .01	+ 1	78	− .04	+ 3
44	.00	0	80	− .04	+ 3
46	− .01	+ 1	82	− .01	+ 1
48	− .03	+ 3	84	.00	0
50	− .04	+ 3	86	− .06	+ 5
52	− .03	+ 3	88	− .12	+ 10
54	− .01	+ 1	90	− .14	+ 11
56	− .01	+ 1	92	− .14	+ 11
58	− .03	+ 3	94	− .14	+ 11
60	.00	0	96	− .13	+ 11
62	+ .05	− 4	98	− .12	+ 10
64	+0.12	−.00010	100	−0.12	+.00010

Column 24 contains the declination of the star, using the assumed north latitude, 38° 53′ 39″.25.

Column 25 contains the reduction from the apparent declination at date to the mean declination for 1870.0.

It was computed by Bessel's formulæ, with constants prepared from the logarithms A, B, C, and D of the American Ephemeris and Nautical Almanac, and, in addition to the terms included in that work, it includes also those depending on twice the Moon's longitude. Corrections for proper motion have not been applied to any star.

Column 25 contains the initials of the observers' names:

Y. denoting Professor M. Yarnall.
D. denoting Mr. M. H. Doolittle.

The observations were reduced by Mr. Doolittle.

THE EQUATORIAL.

This instrument was employed during the year 1868 in observing comets, the minor planets, and stars in the group Præsepe. The comets of Brorsen and Encke were observed, and the following minor planets:

Proserpina,	㉖	Leda,	㊳
Ariadne,	㊸	Eugenia,	㊺
Alexandra,	(54)	Elpis,	(59)
Echo,	(60)	Angelina,	(64)
Freia,	(76)	Sappho,	(80)
Undina,	(92)	Arethusa,	(95)
Ianthe,	(98)	Helena,	(101)
Miriam,	(102)	Dione,	(106)

The results of these observations will be found on pages 321–328. Under the head of the object observed, the first column gives the date of the observation and the sidereal time, from which and the right ascension the hour angle is obtained, which is necessary for computing the parallax and the differential refraction. The next column contains the correction for differential refraction. Under the heads of α and δ are given the apparent right ascension and declination corrected for differential refraction but not for parallax. The quantities denoted by $l\,\Delta\,p$ are the logarithms of the parallaxes multiplied by the distances of the object from the earth. The two last columns are used to designate the star of comparison and the observer.

Under the head of "Comparison stars" are given the date and the mean time of the observation, the mean right ascension and declination of the star of comparison for the beginning of the year and the reduction to the apparent place on the day of observation, the authority on which the adopted position of the star depends, and the number of comparisons. In this last column the first number indicates the number of wires observed in right ascension, and the second the number of bisections in declination. The last column gives the result of comparison with the Ephemeris taken in the sense the computed minus the observed place. The letters B. J. denote the Berliner Jahrbuch, and A. N. the Astronomische Nachrichten.

In this way it is hoped that sufficient data are given for a revision of the reductions, if it should be necessary. The quantities upon which the observed positions essentially depend are the sidereal time of observation and the observed differences of right ascension and declination; and these being found by taking the mean of several values that differ but little from each other, the chance of numerical error is slight. The accuracy of the deduced positions will of course depend on that of the stars of comparison, and for this year many of these stars have been determined with the Transit Circle.

All the observations were made with the filar micrometer and with bright wires on a dark field. Previous to this year a system of five wires has been used for observing differences of right ascension—a wire near the middle of the field and two on each side of it, at distances of 8 and 12 seconds. These wires are rather coarse, and reflecting a good deal of light into the field, they made the observation of a faint object very difficult at the outside wires. For this reason the two wires, distant 8 seconds from the middle wire, were removed at the beginning of the year. In other respects the reticule remains the same as in former years. The value of one revolution of the micrometer was assumed to be 15''.337, and the power used was 132.

The observations have been made and reduced by Professor Hall.

OBSERVATIONS

WITH THE

TRANSIT CIRCLE.

1868.

SUMMARY OF THE PRINCIPAL CONSTANTS USED IN THE REDUCTION OF THE OBSERVATIONS WITH THE TRANSIT CIRCLE DURING THE YEAR 1868.

Approximate distance of wires I to VII	12¼ s.
One revolution of the microscope micrometers	30″
One revolution of zenith distance micrometer	15″.320+0″.068 (r.—30)

CORRECTIONS FOR INCLINATION AND DISTANCE OF WIRES.

Vertical wire.	Inclination of central wires.	Correction for Wire A.	Correction for Wire B.
	″	′ ″	′ ″
I.	+ 1.25	+ 2 35.02	— 2 26.94
II.	+ 0.83	+ 2 34.72	— 2 27.67
III.	+ 0.42	+ 2 34.42	— 2 28.40
IV.	0.00	+ 2 34.12	— 2 29.14
V.	— 0.42	+ 2 33.82	— 2 29.88
VI.	— 0.83	+ 2 33.52	— 2 30.61
VII.	— 1.25	+ 2 33.22	— 2 31.34

Constant { Added to reduction to meridian Subtracted from zenith point correction }	″ 1.80
Adopted latitude of the instrument	° ′ ″ 38 53 38.80
One division of hanging level	s. 0.058

Position of the instrument. Clamp east.

Circle B, on the west end of the axis, was this year used in observation, its zenith reading being 0°.

In reversing the instrument the notation of the transit wires is also reversed, so that the wire first reached by an equatorial star is always called wire I.

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan'us Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Jan. 1	1	Neptune, E. & E.	N.	3	. .	26.0	38.2	50.5	2.7	15.0	27.4	. .	. .	. . .	. .	. .	. .	. . . .	. .
	2	Anonymous, E.&E.	N.	3	. .	30.9	43.1	55.4	7.8	20.0	32.2	44.6	. .	. . .	. .	. .	. .	. . . .	. .
4	3	Polaris	A.	.	. .	. .	56.0	19.5	44.0	7.5	33.0	. .	. .	10 43.70	+24.27	. .	− 5.19	1 11 2.78	+ 0.12
	4	η Piscium	A.	.	17.7	20.4	22.0	. .	. .	. .	38.8	40.5	43.2	24 30.46	− 0.06	− 5.03	− 5.19	1 24 25.21	− 0.11
	5		A.	.	. .	. .	26.3	28.5	30.4	32.6	34.7	. .	. .						
	6	ε Tauri	A.	3	47.8	50.5	52.2	. .	. .	. .	9.2	10.9	13.6	20 0.68	− 0.02	− 5.15	− 5.20	4 20 55.46	− 0.05
	7		A.	3	. .	. .	56.4	58.4	0.7	2.8	5.1	. .	. .						
	8	Anonymous	A.	.	57.9	. .	. .	7.3	. .	17.2	21.5	. .	26.2	32 12.20	+ 0.08	. .	− 5.20	4 32 7.08	+ 6.43
	9	ι Aurigæ	A.	3	15.4	18.5	20.6	. .	. .	. .	40.1	41.5	44.8	48 30.15	+ 0.16	− 5.24	− 5.20	4 48 25.11	+ 0.01
	10		A.	3	. .	. .	25.3	27.7	30.2	32.6	35.0	. .	. .						
8	11	α Lyræ	H.	3	15.6	18.8	20.6	28.6	31.2	33.9	41.6	43.7	46.9	32 31.21	+ 0.20	− 5.11	− 5.16	18 32 26.25	− 0.05
9	12	Neptune, E. & E.	N.	.	. .	24.9	37.1	49.4	1.7	13.9	26.0	38.4	. .	48 1.63	− 0.06	. .	. .	. . . .	. .
	13	Anonymous	N.	.	. .	29.0	41.5	53.8	6.0	18.3	30.5	42.9	. .	54 5.98	− 0.05	. .	. .	. . . .	. .
	14	Polaris	H.	2	. .	. .	3.0	26.0	50.0	16.0	38.0	. .	. .	10 50.60	+14.22	. .	− 5.16	1 10 59.66	+ 1.12
	15	η Piscium	A.	.	17.8	20.4	22.0	28.4	30.5	32.6	38.8	40.5	43.3	24 30.48	+ 0.02	− 5.19	− 5.16	1 24 25.34	+ 0.08
10	16	Neptune	N.	3	. .	. .	40.3	55.0	4.8	17.1	29.2	41.5	. .	4.77	. .	. .	. .	. . . .	. .
	17	Anonymous	N.	.	. .	30.0	42.4	54.8	7.0	19.1	31.5	43.8	. .	6.93	. .	. .	. .	. . . .	. .
13	18	Neptune	N.	.	. .	36.0	48.2	0.6	12.9	25.1	37.4	49.7	. .	48 12.84	. .	. .	. .	. . . .	. .
	19	Anonymous	N.	.	. .	31.0	43.3	55.6	7.9	20.0	32.2	44.7	. .	54 7.81	. .	. .	. .	. . . .	. .
29	20	α Lyræ	N.	.	54.6	57.9	59.7	7.6	10.3	12.9	20.6	22.6	26.0	. . .	. .	. .	. .	. . . .	. .
30	21	Sun I, N.	N.	1	6.0	9.0	10.5	16.6	18.9	20.8	27.0	28.8	31.6	49 18.80	− 0.64	. .	+ 0.98	20 49 19.14	. .
	22	Sun II, S.	N.	1	. .	. .	. .	. .	44.4	45.8	48.6	1.7	14.4	51 35.81	− 0.64	. .	+ 0.98	20 51 36.15	. .
	23	Venus I, (centre)	N.	1	51.2	54.1	55.8	. .	. .	. .	12.3	13.8	16.4	51 3.93	− 0.51	. .	+ 0.99	22 51 4.41	. .
	24	Venus II	N.	1	. .	. .	0.5	2.6	4.7	6.7	8.7	. .	. .	51 4.64	− 0.51	. .	+ 0.99	22 51 5.12	. .
	25	Polaris	T.	2	44.0	49.0	. .	0.0	. .	. .	52.0	. .	. .	10 24.72	+12.26	. .	+ 0.92	1 10 37.90	− 1.41
	26	Moon I. S.	T.	3	49.5	52.0	53.8	. .	1.9	. .	10.3	11.9	14.5	1 1.99	− 0.39	. .	+ 0.92	1 11 2.52	+63.59
	27	ο Piscium	T.	.	12.3	15.0	16.7	22.6	24.6	26.6	33.0	34.7	37.0	38 24.72	− 0.35	+ 0.81	+ 0.93	1 38 25.34	+ 0.08
	28	β Arietis	T.	2	7.2	9.9	11.5	20.3	22.4	24.6	28.8	30.6	33.4	47 20.24	− 0.27	+ 0.98	+ 0.93	1 47 20.90	− 0.04
	29	α Arietis	T.	3	30.2	32.8	34.8	41.1	43.2	45.6	52.0	53.9	56.8	59 43.38	− 0.25	+ 1.00	+ 0.93	1 59 44.06	− 0.06
	30	51 Cephei	A.	.	. .	. .	. .	. .	. .	. .	. .	. .	24.0	38 9.09	+ 4.34	. .	+ 1.10	6 38 15.34	+12.56
	31	δ Canis Majoris	A.	.	48.3	51.4	53.3	0.2	2.2	4.4	11.3	13.2	15.6	3 2.21	− 0.52	. .	+ 1.11	7 3 2.80	− 0.06
	32	δ Geminorum	A.	1	1.4	4.1	5.6	12.2	14.2	16.4	23.2	25.1	27.6	12 14.42	− 0.22	+ 1.22	+ 1.11	7 12 15.31	− 0.14
	33	φ Geminorum	A.	1	11.6	14.2	16.1	22.8	25.1	27.1	34.3	36.0	38.8	45 25.11	− 0.19	+ 1.23	+ 1.12	7 45 26.04	− 0.15
	34	λ Ursæ Minoris, S. P.	A.	½	27.0	58.0	38.0	4.0	17.0	. .	. .	. .	. .	55 29.14	−11.06	. .	+ 1.12	19 55 19.20	− 3.32
	35	Polaris, S. P.	A.	1	. .	38.0	15.0	45.0	18.0	51.0	5.0	5.0	19.0	10 41.98	− 5.10	. .	+ 1.19	1 10 38.07	− 0.85
	36	α Virginis	A.	1	1.7	4.3	6.0	12.1	14.2	16.1	22.7	24.1	26.6	18 14.20	− 0.32	+ 1.10	+ 1.19	13 18 15.07	+ 0.10
	37	ζ Virginis	A.	.	45.1	47.7	49.5	55.4	57.5	59.6	5.6	7.0	9.9	27 57.48	− 0.26	+ 1.18	+ 1.19	13 27 58.41	+ 0.01
	38	η Bootis	A.	2	10.2	12.7	14.2	20.7	23.1	25.1	31.7	33.4	36.1	48 23.02	− 0.19	+ 1.18	+ 1.20	13 48 24.02	− 0.01
	39	β Libræ	A.	3	41.1	43.6	45.2	51.3	53.2	55.3	1.4	3.1	5.5	9 53.30	− 0.29	+ 1.13	+ 1.22	15 9 54.23	+ 0.08
31	40	Sun I, N.	N.	2	11.6	14.1	15.4	22.3	24.5	26.4	33.1	34.4	37.0	53 24.36	− 0.27	. .	+ 1.28	20 53 25.37	. .
	41	Sun II, S.	N.	2	28.3	30.8	32.6	38.8	41.2	43.2	49.7	51.2	54.1	55 41.10	− 0.27	. .	+ 1.28	20 55 42.11	. .
	42	Venus I, S.	N.	1	25.7	28.5	29.9	. .	. .	. .	46.4	47.8	50.5	55 38.13	− 0.22	. .	+ 1.31	22 55 39.22	. .
	43	Venus II, N.	N.	1	. .	. .	34.8	36.8	38.8	40.7	43.0	. .	. .	55 38.82	− 0.22	. .	+ 1.31	22 55 39.91	. .
	44	Polaris	T.	.	. .	. .	. .	7.0	30.0	53.0	19.0	. .	. .	10 30.55	+ 7.52	. .	+ 1.33	1 10 39.40	+ 0.87
	45	ο Piscium	T.	.	11.7	14.2	15.8	22.1	24.2	26.2	32.3	33.8	36.4	38 24.08	− 0.13	+ 1.26	+ 1.27	1 38 25.22	− 0.03
	46	α Arietis	T.	3	29.6	32.4	34.1	40.7	42.9	45.1	51.7	53.3	56.2	59 42.90	− 0.06	+ 1.28	+ 1.27	1 59 44.11	0.00

22. R. A. observed over set D, VI, VII.
28.29. Blurred.
30. Barely observable.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″								″	° ′ ″		′ ″	° ′ ″	″
1																	
2																	
3	310 13	9 23.4	20.0	20.2	21.8	28	126	186	179	200	111	46.2	310 18 11.4	561	− 1 8.6	1 23 24.0	− 0.3
4	24 9	10 0.4	26.0	25.9	28.0	24	. .	629	. .	611	. .	46.2	24 13 23.3	563	+ 26.2	75 20 10.8	+ 0.3
5																	
6	19 55	28.0	23.4	22.5	25.0	28	379	382	. .	378	415	46.2	20 0 18.2	574	+ 21.3	71 7 0.7	− 0.6
7																	
8	12 8	4.5	29.9	28.9	1.5	29	169	006	. .	030	030	46.2	12 20 0.8	. .	+ 12.8	63 26 34.8	−20.8
9	5 52	9.0	3.0	4.0	5.5	27	940	039	. .	070	095	46.2	5 56 23.6	598	+ 6.1	57 2 50.9	0.0
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21	56 16	10 21.6	21.6	21.3	23.6	22	. .	428	. .	. .	. .	42.8	56 18 28.7	. .	+ 1 33.4	107 26 23.3	− 7.5
22	56 48	10 24.9	23.4	23.0	25.5	28	. .	. .	. .	. .	170	42.8	56 50 57.4	855	+ 1 35.3	107 58 53.9	− 7.5
23	47 38	10 28.2	28.0	27.3	0.6	22	274	305	. .	321	275	42.8	47 42 23.9	. .	+ 1 8.1	98 49 53.2	− 4.7
24																	
25	310 14	10 21.6	21.4	22.8	24.5	19	125	193	170	. .	. .	42.8	310 19 18.9	. .	− 1 13.4	1 24 26.7	+ 2.3
26	35 52	10 29.1	28.7	27.6	1.3	29	. .	. .	102	. .	. .	42.8	35 54 38.9	853	+ 45.1	87 1 45.2	
27	30 20	10 12.0	10.7	11.5	11.8	26	. .	. .	. .	330	. .	42.8	30 23 38.5	863	+ 36.7	81 30 36.4	+ 1.9
28	18 40	10 19.4	17.8	19.5	21.2	25	868	816	. .	652	725	42.8	18 43 40.1	866	+ 21.2	69 50 22.5	+ 1.5
29	16 0	17.1	15.1	17.1	17.0	27	. .	972	. .	744	. .	42.8	16 3 10.9	874	+ 18.1	67 9 50.2	+ 1.3
30																	
31																	
32	16 36½	26.5	25.0	28.1	26.4	25	351	. .	. .	. .	503	42.8	16 40 8.4	974	+ 19.2	67 46 48.8	− 0.4
33	11 44½	21.0	20.2	24.2	22.8	29	170	. .	. .	. .	948	42.8	11 47 17.3	978	+ 13.4	62 53 51.9	− 2.1
34																	
35																	
36																	
37																	
38	19 46½	13.5	13.1	17.5	14.0	27	. .	650	. .	666	. .	42.8	19 49 45.7	1050?	+ 23.6	70 56 30.5	+ 1.2
39																	
40	55 58	9 21.6	19.9	21.6	23.4	26	880	884	. .	. .	. .	42.1	56 1 50.5	. .	+ 1 32.5	107 9 44.2	− 7.4
41	56 32	9 19.5	17.4	19.6	22.4	25	. .	. .	. .	181	260	42.1	56 34 16.5	857	+ 1 34.4	107 42 12.1	− 7.5
42	47 10	10 27.7	27.2	27.7	0.7	28	. .	642	. .	549	. .	42.1	47 12 47.0	787	+ 1 6.2	98 20 14.4	− 4.7
43	47 10	10 27.7	27.2	27.7	0.7	29	. .	756	. .	656	. .	42.1	47 12 30.0	. .	+ 1 6.2	98 19 57.4	− 4.7
44																	
45	30 20	10 8.4	8.4	9.1	9.6	26	772	. .	. .	638	. .	42.1	20 23 35.6	835	+ 36.4	81 30 33.2	− 1.4
46																	

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
26	− 32 45.3	− 15 19.9

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s	s.	s	s.	h. m. s.	s.
Jan. 31	1	Moon I, S. . .	T.	.	37.5	40.2	41.7	48.1	50.1	52.2	58.5	0.2	2.6	1 50.12	− 0.14	. .	+ 1.27	2 1 51.25	+ 64.98
	2	μ Geminorum . .	A.	2	44.9	47.5	49.5	56.1	58.3	0.3	7.1	8.7	11.4	14 58.20	− 0.04	+ 1.38	+ 1.38	6 14 59.54	0.00
	3	51 Cephei	A.	3	46.0	38.0	9.0	35.0	18.0	59.0	42.0	25.0	. .	37 59.70	+ 4.11	. .	+ 1.38	6 38 5.19	+ 2.59
	4	δ Geminorum . .	A.	3	59.7	2.5	4.2	10.9	13.3	15.3	21.9	23.7	26.4	12 13.10	− 0.04	+ 1.37	+ 1.38	7 12 15.43	− 0.02
Feb. 1	5	Moon, I. S. . .	N.	3	54.2	56.7	58.3	4.7	6.9	8.9	15.4	16.9	19.7	55 6.86	− 0.09	. .	+ 1.67	2 55 8.44	+ 66.82
	6	Moon I . .	T.	.	19.9	23.0	24.7	31.0	33.1	35.3	41.8	43.6	46.2	51 33.18	− 0.02	. .	+ 1.93	3 51 35.09	+ 68.93
	7	γ Tauri	T.	.	3.1	5.6	7.3	13.4	15.6	17.6	24.0	25.6	28.3	12 15.61	− 0.02	+ 1.95	+ 1.94	4 12 17.53	+ 0.01
	8	ε Tauri	T.	.	40.3	43.1	44.7	51.1	53.2	55.4	2.0	3.5	6.2	20 53.29	− 0.01	+ 1.88	+ 1.94	4 20 55.29	+ 0.06
	9	α Tauri	T.	.	6.9	9.5	11.1	17.4	19.5	21.5	28.0	29.7	32.3	28 19.54	+ 0.02	+ 1.98	+ 1.94	4 28 21.46	− 0.04
	10	α Camelopardalis .	T.	.	25.8	32.4	36.3	51.4	56.6	1.6	16.8	20.6	26.6	40 56.45	+ 0.36	. .	+ 1.94	4 40 58.75	+ 0.25
3	11	ε Tauri	N.	2.1	39.8	42.6	44.2	50.7	52.7	54.4	1.2	3.0	5.7	20 52.70	− 0.02	+ 2.54	+ 2.52	4 20 55.20	− 0.02
	12	α Camelopardalis .	N.	1	. .	. .	45.8	50.4	55.7	0.8	5.8	. .	. .	40 55.62	+ 0.21	. .	+ 2.52	4 40 58.35	− 0.11
	13	ι Aurigæ . . .	N.	.	7.6	10.6	12.6	19.7	22.2	24.6	32.0	34.0	37.2	48 22.28	+ 0.03	+ 2.50	+ 2.52	4 48 24.83	− 0.01
	14	Moon I, S. . .	N.	1	19.8	21.5	26.0	28.0	30.2	32.3	34.6	39.1	40.7	30.24	− 0.02	. .	+ 2.53	4 51 32.75	+ 71.00
	15	β Tauri	N.	1	41.4	44.4	46.1	52.8	55.2	57.7	4.6	6.3	9.1	17 55.29	+ 0.01	+ 2.51	+ 2.53	5 17 57.83	+ 0.01
	16	ν Geminorum . .	N.	.	50.8	53.6	55.2	1.6	3.9	5.8	12.0	13.7	16.4	30 3.67	− 0.03	+ 2.57	+ 2.55	6 30 6.19	− 0.02
	17	51 Cephei	N.	2	. .	9.5	34.0	15.7	58.0	40.5	22.7	. .	. .	37 58.43	+ 1.89	. .	+ 2.55	6 37 2.87	+ 0.87
	18	Uranus . . .	N.	.	18.4	21.3	22.9	29.7	31.7	33.8	40.6	42.4	45.3	41 31.79	0.00	. .	+ 2.55	6 41 34.34	. .
	19	11 Orionis . . .	E.	.	. .	55.2	57.1	59.5	1.5	3.6	8.0	9.5	12.3	56 59.44	+ 0.15	+ 2.74	+ 2.59	4 57 2.18	− 0.10
6	20	β Orionis . . .	E.	.	57.0	59.7	1.3	5.3	7.6	9.7	11.6	13.8	. .	8 9.55	+ 0.18	+ 2.61	+ 2.59	5 8 12.32	− 0.01
	21	δ Orionis . . .	E.	.	1.7	4.2	5.7	11.6	13.8	15.9	22.0	23.6	25.0	25 13.72	+ 0.18	+ 2.65	+ 2.60	5 25 16.50	− 0.07
	22	ε Canis Majoris .	E.	.	11.1	14.1	15.7	22.6	25.0	27.4	34.4	36.1	39.1	53 25.06	+ 0.20	+ 2.38	+ 2.62	6 53 37.88	+ 0.22
	23	δ Canis Majoris .	E.	.	46.6	49.6	51.1	58.0	0.2	2.4	9.5	11.1	13.9	3 0.27	+ 0.19	. ,	+ 2.62	7 3 3.08	+ 0.26
	24	Moon I, N. . .	E.	.	0.0	2.7	4.4	11.0	13.3	15.4	22.0	23.6	26.5	6 13.21	+ 0.16	. .	+ 2.64	8 6 16.01	+ 73.19
	25	β Lyræ	A.	.	. .	. .	58.2	2.7	7.9	. .	. .	. .	22.6	45 7.86	+ 0.10	+ 3.20	+ 2.97	18 15 10.93	− 0.21
	26	α Aquilæ . . .	A.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
7	27	Sun I, N. . . .	A.	3.2	26.7	30.7	32.3	38.6	41.0	43.1	50.0	51.0	53.5	21 40.77	+ 0.30	. .	+ 3.01	21 21 44.08	. .
	28	Sun II, S. . .	A.	1	43.2	45.8	47.2	53.8	55.9	58.1	4.3	5.7	8.5	23 55.84	+ 0.30	. .	+ 3.02	21 23 59.16	. .
	29	α Andromedæ . .	A.	3	16.1	19.0	20.8	27.6	30.0	32.2	39.3	41.1	43.8	1 29.99	+ 0.13	+ 3.21	+ 3.07	0 1 33.19	− 0.14
	30	γ Tauri	A.	.	. .	. .	. .	12.0	14.0	16.6	23.0	24.6	27.3	12 14.40	+ 0.19	+ 2.87	+ 3.14	4 12 17.73	+ 0.29
	31	ε Tauri	A.	2	39.0	41.8	43.2	50.0	52.0	54.1	0.6	2.2	5.0	20 51.99	+ 0.18	+ 2.99	+ 3.14	4 20 55.31	+ 0.15
	32	Anonymous . .	A.	3	49.8	. .	53.4	59.1	. .	. .	12.4	. .	15.3	32 3.82	+ 0.14	. .	+ 3.14	4 32 7.10	+ 6.78
	33	ι Aurigæ . . .	A.	2	. .	. .	. .	. .	21.9	23.9	26.3	31.1	36.0	48 21.53	+ 0.10	+ 3.11	+ 3.15	4 48 24.78	+ 0.01
	34	β Orionis . . .	A.	5	56.6	59.0	0.5	6.8	9.0	11.0	17.1	18.8	21.2	8 8.89	+ 0.28	+ 3.15	+ 3.16	5 8 12.33	+ 0.01
	35	ε Orionis . . .	A.	.	18.7	. .	. .	. .	. .	. .	. .	. .	. .	29 30.95	+ 0.25	+ 0.51	+ 3.16	5 29 34.36	. .
	36	Uranus . . .	A.	1.3	. .	53.1	55.5	57.3	59.7	2.2	7.2	8.3	11.2	57.59	+ 0.16	. .	+ 3.18	6 41 0.93	. .
	37	δ Canis Majoris .	A.	3	45.8	48.8	50.6	57.4	59.7	2.1	8.8	10.1	13.5	2 59.65	+ 0.3[illegible]	. .	+ 3.19	7 3 3.17	+ 0.26
	38	δ Geminorum . .	A.	2	58.7	1.6	3.4	9.9	12.2	14.2	20.7	22.5	25.6	12 12.09	+ 0.16	+ 3.15	+ 3.19	7 12 15.44	+ 0.01
	39	λ Ursæ Min., S. P.	A.	2	48.0	37.0	16.5	. .	. .	. .	53.0	33.0	19.0	55 3.86	+ 16.60	. .	+ 3.20	7 55 23.66	− 0.08
	40		A.	2	. .	. .	37.0	50.0	58.0	20.0	31.0	. .	. .						
	41	ε Hydræ	A.	4	32.7	35.2	36.6	43.1	45.1	47.1	53.1	54.7	57.4	38 45.00	+ 0.23	+ 3.08	+ 3.12	8 38 48.35	+ 0.04
	42	Moon I, N. . .	A,	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	43	α Hydræ	A.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	44	γ Leonis	A.	1	26.1	28.8	30.7	37.2	39.2	41.2	48.1	49.7	52.4	12 39.27	+ 0.17	+ 3.17	+ 3.14	10 12 42.58	− 0.01
8	45	Sun I, S. . . .	H.	1	27.1	29.8	31.3	35.6	37.7	39.9	. .	. .	. .	25 39.84	+ 0.22	. .	+ 3.32	21 25 43.38	. .
	46	Sun II, N. . .	H.	1	. .	50.2	52.3	54.4	56.5	58.8	3.1	4.7	7.3	27 54.50	+ 0.22	. .	+ 3.32	21 27 58.04	. .
10	47	α Aquilæ	A.	4	2.8	5.4	7.1	13.1	15.2	17.3	23.5	25.1	27.7	44 15.24	+ 0.11	+ 4.03	+ 4.18	19 44 19.53	+ 0.16
	48	α Cygni	A.	4	32.9	36.5	38.8	47.1	50.2	53.1	1.5	3.7	7.5	36 50.14	+ 0.08	. .	+ 4.19	20 36 54.41	− 0.07

6.7.8.9. Observed in dark field.
14. Circle not read, both limbs blurred.
25. R. A. observed over wires B_3, C_1, C_3, and D_3.
27. Rev. of micrometer doubtful, probably one rev. too small in N. P. D.
39.40. Very unsteady image.
45. Observed over set B, and C_1, C_2, C_3, in R. A.
46. Observed over sets C and D in R. A.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	31 45	8 17.6	15.9	17.5	18.3	30	. .	212	330	400	. .	42.1	31 47 31.8	848	+ 38.6	82 54 31.6	
2	16 16½	26.8	26.8	28.9	28.9	30	. .	. .	. .	530	497	42.1	16 18 47.3	952	+ 18.7	67 25 27.2	— 0.6
3	311 36	19.3	19.6	24.0	21.4	25	093	100	115	050	930	42.1	311 40 18.6	965	— 1 11.9	2 45 27.9	— 1.6
4	16 36	19.5	20.0	22.8	21.0	25	. .	. .	. .	. .	668	42.1	16 40 8.4	982	+ 19.3	67 46 48.9	— 0.3
5	27 55	8 22.9	21.8	24.3	24.2	28	998	101	202	302	356	41.7	27 57 42.6	872	+ 33.3	79 4 37.1	
6																	
7																	
8																	
9																	
10																	
11	19 56	10 9.8	8.4	10.2	10.1	23	. .	. .	. .	. .	830	42.5	20 0 18.0	993	+ 23.5	71 7 2.7	+ 0.9
12	332 44	2.0	1.0	3.3	4.3	28	410	422	. .	370	260	42.5	332 47 16.7	. .	— 33.1	23 53 4.8	+ 0.1
13	5 52	5.9	4.3	7.2	6.6	23	. .	928	. .	849	. .	42.5	5 56 22.0	. .	+ 6.7	57 2 49.9	+ 0.5
14	22 8	9 15.1	12.3	14.9	15.0	24	237	340	358	374	391	42.5	22 12 36.4	1008	+ 26.4	73 19 24.0	
15	10 20	6.7	5.7	8.4	8.4	25	. .	268	. .	315	. .	42.5	10 23 59.2	. .	+ 11.9	81 30 32.3	+ 0.1
16	22 20	8.6	6.8	9.4	9.0	29	859	756	. .	721	650	42.5	22 22 49.9	. .	+ 26.8	73 29 27.9	+ 0.2
17																	
18	15 20	6.0	3.0	6.4	7.0	25	. .	405	. .	251	. .	42.5	15 24 0.3	. .	+ 18.0	66 30 39.5	— 0.1
19	13 36	6 6.5	6.8	7.2	6.0	23	. .	901	. .	911	810						
20	47 10	6.3	11.5	7.4	6.0	24	. .	. .	. .	. .	310						
21	39 14	5.8	6.7	4.2	3.5	29	. .	228	. .	142							
22																	
23	65 0	2.0	3.0	6.5	2.6	29	858	838	. .	630	608						
24	21 46	?9 14.2	14.4	15.0	12.6	26	. .	414	516								
25																	
26	30 18	2.0	3.1	4.0	4.5	26	. .	. .	. .	. .	539	43.2	30 21 43.4	859	+ 36.6	81 28 41.2	+ 0.7
27	53 54	10 21.9	22.5	24.0	23.0	26	158	131	. .	. .	. .	43.3	53 57 31.8	. .	+ 1 25.2	105 5 18.1	— 7.2
28	54 26	10 17.3	17.7	19.1	19.0	23	. .	. .	. .	859	772	43.3	54 30 10.6	836	+ 1 26.9	105 37 58.7	— 7.3
29	. .	. . .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . .	813			
30																	
31	19 56	5.5	6.5	8.5	7.0	24	. .	. .	. .	. .	407	43.5	20 0 13.0	897	+ 22.9	71 6 57.1	— 4.7
32	12 16	5.5	5.2	7.5	6.0	25	. .	. .	. .	. .	440	43.5	12 19 58.1	900	+ 13.8	66 26 33.1	—20.3
33	5 52	5.5	5.7	7.5	6.6	23	. .	. .	. .	940	970	43.5	5 56 20.7	921	+ 6.6	57 2 48.5	— 0.8
34	47 10	6.0	6.1	7.5	7.0	24	. .	691	. .	691	. .	43.6	47 14 9.9	928	+ 1 8.6	98 21 39.7	— 0.6
35	40 8	0.5	0.5	2.4	1.4	32	. .	491	. .	338	. .	43.6	40 10 17.2	935	+ 53.6	91 17 32.0	— 2.6
36	15 20	4.5	4.0	6.8	6.0	27	. .	. .	. .	334	470	43.6	15 23 29.0	958	+ 17.6	66 30 7.8	— 0.1
37	65 0	0.5	0.5	3.0	2.5	30	. .	306	250	. .	. .	43.6	65 2 49.3	950	+ 2 16.4	116 11 26.9	+ 1.7
38	16 36	6.8	6.0	8.5	8.2	24	872	819	. .	700	765	43.6	16 40 8.0	962	+ 19.1	67 46 48.3	— 0.8
39 40	307 44	2.0	2.3	4.0	4.5	10	744	760	789	764	750	43.6	307 49 43.7	974	— 1 22.5	358 54 42.4	— 4.2
41	31 56	. . .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . .	980			
42	24 36	2.3	1.0	3.0	3.0	27	. .	453	566	538	. .	43.7	24 39 31.2	966	+ 29.4	75 46 21.8	
43	46 54	3.8	3.0	6.4	5.5	25	. .	631	. .	650	. .	43.8	46 57 57.6	966	+ 1 8.5	98 5 27.3	+ 0.3
44	18 20	0.1	0.4	3.0	1.8	.	. .	. .	. .	. .	. .	. .					
45	54 8	10 1.0	1.6	3.0	3.4	28	. .	338	. .	. .	. .	43.5	54 11 19.2	. .	+ 1 27.0	105 19 7.5	— 7.2
46	53 36	10 2.0	2.5	3.8	1.4	30	. .	. .	. .	220	175	43.5	53 38 49.1	890	+ 1 25.3	104 46 35.6	— 7.2
47	30 18	9 27.0	27.0	28.1	28.9	26	. .	. .	. .	786	891	42.3	30 21 43.8	852	+ 36.5	81 28 41.5	+ 0.5
48	354 2	9 29.5	26.5	29.5	29.6	28	988	989	. .	921	089	42.3	354 5 11.7	848	— 6.5	45 11 26.4	+ 1.4

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
11	30.745	11.5	70.2
18	30.700	5.0	69.7

For summary of the elements of reduction see page 3.

MOON'S—

No.	Parallax.	Semi-diam.
	′ ″	′ ″
1	— 29 47.2	+ 15 32.7
5	— 26 53.6	— 15 45.7
14	— 22 18.0	— 16 15.0
24	. . .	— 16 43.3
42	— . . .	— 16 42.9

DATE.	Number.		OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
						I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
															m. s.	s.	s.	s.	h. m. s.	s.
1868. Feb. 11	1		Sun I, N. . . .	A.	3	20.1	22.2	24.1	30.1	32.3	34.2	41.1	42.4	45.2	37 32.41	+ 0.10	. .	+ 4.21	21 37 36.72	. .
	2		Sun II	A.	3	. .	. .	. .	. .	. .	. .	55.1	56.8	59.5	38 46.77	+ 0.10	. .	+ 4.21	21 39 51.11	. .
	3		Mercury . . .	A.	3	6.9	11.5	15.5	17.4	19.6	21.7	23.8	28.1	32.1	33 19.62	+ 0.10	. .	+ 4.24	22 23 23.96	+ 0.03
	4	α	Pegasi	A.	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	5		Venus I, N. . .	A.	4	39.2	42.0	43.2	49.4	51.5	53.6	59.7	1.3	3.7	44 51.51	+ 0.10	. .	+ 4.26	23 44 55.87	+ 0.43
	6		Venus S. . . .	A.	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	7	α	Andromedæ . .	A.	4	15.0	18.0	19.8	26.6	29.1	31.2	38.2	39.9	42.7	1 28.94	+ 0.10	+ 4.25	+ 4.27	0 1 33.31	+ 0.02
	8	γ	Pegasi	A.	5	11.2	12.8	17.1	19.2	21.2	23.3	25.4	29.7	31.3	6 21.24	+ 0.11	+ 4.22	+ 4.27	0 6 25.62	+ 0.03
	9		Polaris . . .	A.	4	59.0	44.5	49.5	35.0	1.0	. .	2.0	3.0	50.3	10 24.42	− 3.45	. .	+ 4.29	1 10 25.26	− 4.12
	10			A.	4	. .	. .	35.0	1.0	24.5	48.0	11.0	. .	. .						
	11	ε	Tauri	A.	5	37.7	40.3	42.0	48.5	50.7	52.7	59.4	1.0	3.6	20 50.66	+ 0.10	+ 4.33	+ 4.34	4 20 55.10	+ 0.01
	12		Anonymous . .	A.	5	. .	57.1	0.1	. .	5.1	7.1	11.8	13.3	16.2	32 2.32	+ 0.10	. .	+ 4.34	4 32 6.76	+ 6.54
	13	α	Aurigæ . . .	A.	5	35.2	38.8	41.4	50.0	53.0	55.8	4.6	6.8	10.6	6 52.91	+ 0.08	. .	+ 4.35	5 6 57.41	− 0.03
	14	β	Orionis . . .	A.	5	. .	. .	. .	. .	. .	. .	16.1	17.7	20.3	8 7.89	+ 0.10	+ 4.27	+ 4.35	5 8 12.34	+ 0.00
	15	α	Columbæ . . .	A.	5	34.1	37.1	38.9	46.2	48.6	51.3	58.8	0.3	3.5	34 48.76	+ 0.07	+ 4.20	+ 4.36	5 34 53.19	+ 0.10
	16	α	Orionis . . .	A.	4	45.4	48.1	49.6	55.8	57.9	59.9	5.9	7.7	10.1	47 57.82	+ 0.11	+ 4.43	+ 4.36	5 48 2.29	− 0.07
	17	δ	Ursæ Minoris, S.P.	A.	5	20.1	54.0	44.0	10.2	35.5	1.9	26.3	17.4	52.0	13 35.70	+ 1.76	. .	+ 4.37	18 14 41.83	+ 0.63
	18	51	Cephei	A.	5	43.7	36.0	9.5	34.0	15.0	. .	. .	. .	. .	37 57.98	− 1.67	. .	+ 4.38	6 38 0.06	+ 0.63
	19		Uranus . . .	A.	5	12.6	15.8	17.4	24.1	26.1	28.4	34.6	36.9	39.5	40 26.16	+ 0.10	. .	+ 4.38	6 40 30.64	. .
	20	δ	Geminorum . .	A.	.	57.8	0.5	2.3	8.6	10.8	13.1	19.8	21.5	24.1	12 10.94	+ 0.10	+ 4.33	+ 4.39	7 12 15.43	+ 0.03
	21	λ	Ursæ Min., S. P.	A.	5	6.0	47.0	24.5	. .	. .	. .	5.0	44.0	29.0	. . .	+ 4.96	. .	+ 4.40	7 55 24.24	− 0.06
	22			A.	.	. .	. .	47.0	2.0	14.0	25.0	39.0	. .	. .	55 14.88	. .	. .	. .	. . . .	. .
	23	ε	Hydræ	A.	2	. .	. .	. .	. .	43.6	45.8	52.1	53.6	56.1	39 43.77	. .	. .	. .	. . . .	. .
	24	κ	Cancri	A.	4	19.9	22.6	24.2	30.3	32.5	34.6	40.5	42.3	45.1	0 32.45	+ 0.11	+ 4.39	+ 4.42	9 0 36.98	+ 0.03
	25		Melpomene . .	A.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	26	γ	Tauri	A.	5	25.1	27.9	29.4	35.9	37.9	40.0	46.5	48.2	50.6	12 37.94	+ 0.10	+ 4.56	+ 4.44	10 12 42.48	− 0.16
	27		Moon II, S. . .	A.	.	. .	25.4	27.6	29.5	31.8	33.8	38.4	39.9	42.3	29.73	+ 0.10	. .	+ 4.50	13 6 34.33	+66.16
	28		Polaris, S. P. . .	A.	3	. .	54.0	52.0	4.0	. .	. .	. .	. .	. .	10 15.83	+ 3.90	. .	+ 4.50	1 10 24.19	− 5.19
	29	α	Virginis . . .	A.	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	30	ζ	Virginis . . .	A.	3	. .	50.1	52.0	54.0	56.2	58.2	2.2	3.8	6.4	27 54.11	+ 0.10	+ 4.53	+ 4.50	13 27 58.71	− 0.03
	31	η	Bootis	A.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	32	ε	Bootis	A.	3	55.0	57.6	59.4	6.4	8.7	11.0	18.1	19.7	22.6	39 8.72	+ 0.10	+ 4.57	+ 4.52	14 39 13.34	− 0.06
	33	α	Coronæ Borealis .	A.	2	47.2	50.3	52.0	58.7	1.0	3.5	10.1	12.1	14.6	29 1.06	+ 0.10	+ 4.60	+ 4.53	15 29 5.69	− 0.07
	34	α	Serpentis . . .	A.	2	28.8	31.4	33.1	39.2	41.1	43.2	49.3	51.1	53.5	37 41.19	+ 0.11	+ 4.61	+ 4.53	15 37 45.83	− 0.08
	35	ε	Serpentis . . .	A.	3	57.2	59.8	1.2	7.2	9.3	11.3	17.7	19.2	21.6	44 9.39	+ 0.11	+ 4.61	+ 4.54	15 44 14.04	− 0.08
	36	δ	Scorpii	A.	4	14.1	16.7	18.5	25.1	27.2	29.4	35.8	37.5	40.3	52 27.18	+ 0.09	+ 4.58	+ 4.54	15 52 31.81	− 0.04
	37	β¹	Scorpii	A.	4	. .	. .	. .	. .	. .	. .	. .	. .	54.1	57 41.13	+ 0.11	+ 4.54	+ 4.54	15 57 45.78	+ 0.06
	38	δ	Ophiuchi . . .	A.	2	8.7	10.1	12.7	18.8	20.9	22.9	29.0	30.5	33.0	7 20.73	+ 0.10	+ 4.74	+ 4.55	16 7 25.38	− 0.17
	39		Saturn, Ring I .	A.	.	56.4	. .	0.7	. .	9.3	. .	. .	. .	22.3	13 9.34	+ 0.09	. .	+ 4.55	16 13 13.88	. .
	40		Saturn, Planet I .	A.	.	57.1	. .	1.4	. .	10.0	. .	. .	. .	23.2	13 10.12	+ 0.09	. .	+ 4.55	16 13 14.66	. .
	41		Saturn, Center .	A.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	42		Saturn, Planet II .	A.	.	58.5	. .	2.7	. .	11.4	. .	. .	. .	24.1	13 11.34	+ 0.09	. .	+ 4.55	16 13 15.88	. .
	43		Saturn, Ring II .	A.	.	58.9	. .	3.1	. .	11.9	. .	. .	. .	25.0	13 11 89	+ 0.09	. .	+ 4.55	16 13 16.43	. .
	44	α	Aquilæ . . .	H.	3	3.4	5.9	7.5	13.5	15.6	17.6	23.8	25.3	27.8	44 15.59	+ 0.12	+ 3.70	+ 4.70	19 44 20.41	+ 1.02
	45	α	Cygni	H.	.	32.4	36.2	38.3	46.8	49.7	52.7	1.3	3.4	7.2	36 49.78	+ 0.16	. .	+ 4.71	20 36 54.65	+ 0.16
12	46		Sun I	H.	2	15.7	18.2	19.8	26.2	28.2	30.2	37.1	38.2	40.8	41 28.27	+ 0.08	. .	+ 4.73	21 41 33.08	. .
	47		Sun II	H.	2	29.4	32.1	33.7	39.9	42.2	44.3	50.4	52.2	54.7	43 42.10	+ 0.08	. .	+ 4.73	21 43 46.91	. .
	48		Mercury I, (center)	H.	3	16.2	18.7	20.2	26.6	28.7	30.7	36.8	38.4	41.2	39 28.61	+ 0.09	. .	+ 4.74	22 39 33.44	+ 0.20
	49	α	Pegasi	H.	3	52.6	55.3	56.9	3.2	5.3	7.4	13.8	15.2	18.1	58 5.31	+ 0.13	+ 4.70	+ 4.74	22 58 10.18	+ 0.05

4. Wire B used, and seems ten revs. wrong in N. P. D.

44. A mistake of half a revolution was made in the reduction of the nadir observations. The correction $-7''.6$ is applied to the results given in subsequent sections.

15.16.29.30.34.35.36. Wire B used.

25. Wire A used.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellaneous Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	52 38	9 27.2	27.0	28.7	29.4	28	. .	. .	099	088	185	42.3	52 41 24.7	. .	+ 1 21.0	103 49 6.9	— 7.1
2	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . .	817			
3	48 50	27.5	29.0	1.2	1.1	20	. .	. .	. .	550	448	42.3	48 50 15.6	808	+ 1 10.5	99 57 47.3	— 5.6
4	24 20	28.5	28.0	29.7	0.1	27	848	830	. .	806	766	42.3	24 23 28.6	. .	+ 28.0	75 30 17.8	+ 1.2
5	41 32	29.6	28.9	1.1	1.2	28	470	486	. .	. .	. .	42.3	41 35 17.9	. .	+ 54.6	92 42 33.8	— 4.5
6	41 32	29.6	28.9	1.1	1.2	27	. .	. .	. .	685	699	42.3	41 35 28.4	803	+ 54.6	92 42 44.3	— 4.5
7	10 28	9 24.5	24.9	28.5	28.2	26	960	930	. .	821	756	42.3	10 31 45.8	806	+ 11.5	61 38 18.5	+ 1.2
8	24 24	9 20.1	20.1	22.1	21.8	33	. .	. .	. .	092	971	42.3	24 26 15.7	805	+ 28.0	75 33 4.9	+ 0.4
9 10	310 14	20.7	21.4	25.3	22.7	25	190	150	173	113	110	42.3	310 18 16.0	799	— 1 12.4	1 23 24.8	— 1.1
11	19 56	9 25.5	26.0	28.8	27.7	24	. .	. .	. .	741	696	43.5	20 0 18.3	842	+ 22.6	71 7 2.1	+ 0.1
12	12 16	9 28.7	28.7	1.4	0.0	35	. .	. .	. .	641	690	43.5	12 20 2.4	. .	+ 13.6	63 26 37.2	—20.3
13																	
14	47 10	9 28.0	29.2	1.0	0.3	25	. .	. .	. .	071	991	43.5	47 14 10.6	852	+ 1 7.3	98 21 39.1	— 1.5
15	72 58	9 24.1	25.5	28.0	26.1	25	425	230	. .	150	040	43.5	72 59 27.9	870	+ 3 22.3	124 9 11.4	+ 4.2
16	31 28	29.0	29.5	1.0	1.0	21	. .	200	. .	100	990	43.5	31 30 25.9	880	+ 38.4	82 37 25.5	— 0.4
17	305 26	9 29.0	29.5	2.0	2.0	20	577	613	602	562	561	43.5	305 31 18.6	890	— 1 28.1	356 36 11.6	+ 0.4
18	311 36	9 27.5	27.3	0.8	29.8	24	888	931	931	859	843	43.5	311 40 15.4	890	— 1 10.6	2 45 26.0	— 0.6
19																	
20	16 36	9 24.4	24.1	26.5	26.2	25	. .	500	. .	508	459	43.5	16 40 8.8	900	+ 18.9	67 46 48.9	— 0.1
21 22	307 44	9 24.4	24.4	28.0	26.6	19	170	230	240	230	160	43.5	307 49 44.2	904	— 1 21.1	358 54 44.3	— 0.9
23																	
24	27 38	9 27.9	25.5	28.0	29.0	28	135	119	. .	069	106	43.5	27 41 26.8	930	+ 33.3	78 48 21.3	+ 0.5
25	26 4	26.3	26.0	26.0	25.5	37	200	129	. .	979	150	43.5	26 7 44.5	. .	+ 31.2	77 14 36.9	— 2.6
26																	
27	43 0	9 26.0	24.9	28.0	28.5	23	. .	. .	. .	400	416	43.5	43 4 32.5	980	+ 1.00.0	94 11 53.7	
28																	
29	49 18	26.0	25.5	29.0	27.5	20	. .	. .	. .	. .	116	43.5	49 20 57.9	968	+ 1 14.8	100 28 33.9	+16.5
30	38 46	25.4	24.9	28.5	26.5	24	. .	100	. .	910	. .	43.5	38 48 1.6	986	+ 51.7	89 55 14.5	— 0.7
31	19 46	25.5	25.1	29.5	27.2	25	. .	993	. .	865	. .	43.5	19 50 0.9	988	+ 23.2	70 56 45.3	
32	11 12	23.2	24.3	28.6	26.9	27	. .	333	. .	280	250	43.5	11 15 40.9	991	+ 12.8	62 22 14.9	+ 0.9
33	11 40	25.8	25.0	27.5	28.5	26	470	379	. .	300	190	43.5	11 43 55.0	991	+ 13.4	62 50 29.5	+ 0.9
34	32 0	27.0	25.5	27.9	27.2	.	. .	401	. .	375	300	43.5	32 2 25.5	996	+ 40.3	83 9 27.0	+ 0.2
35	33 58	23.0	21.5	23.8	23.0	23	407	313	. .	016	992	43.5	34 0 17.6	996	+ 43.5	85 7 22.3	— 1.5
36	61 4	25.0	24.2	27.0	26.5	23	739	649	. .	447	373	43.5	61 6 8.9	999	+ 1 56.5	112 14 26.6	— 1.4
37																	
38	42 10	21.4	20.0	23.8	21.5	27	453	420	. .	150	276	43.5	42 13 44.5	995	+ 58.4	93 21 4.1	— 1.9
39																	
40						. .											
41	58 0	28.0	27.5	0.4	29.0	28	362	160	. .	125	073	43.5	58 3 24.3	. .	+ 1 43.1	109 11 28.6	— 0.7
42																	
43													. . . .	994			
44	30 18	9 23.5	22.8	24.9	24.5	27	475	471	. .	353	235	51.2	30 21 49.2	910	+ 37.0	81 28 47.4	+ 6.3
45	354 2	9 22.2	22.6	27.5	23.8	29	360	282	. .	231	180	51.2	354 5 20.8	870	+ 6.5	45 11 35.5	+10.5
46																	
47																	
48	48 0	9 29.3	29.5	1.3	1.9	30	. .	750	. .	729	. .	51.2	48 2 51.1	790	+ 1 8.3	99 10 20.6	— 5.7
49	24 20	9 27.3	27.2	27.9	28.8	28	014	041	. .	920	841	51.2	24 23 36.7	788	+ 27.8	75 30 25.7	+ 9.0

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
33	30.520	8.9	61.0
43	30.542	8.8	60.7
47	30.540	30.5	67.9

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
27	— 39 38.5	— 15 55.0

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan'us Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Feb. 12	1	Venus I, S. . .	H.	2	3.9	6.3	7.9	14.1	16.1	18.1	24.1	25.7	28.2	49 16.04	+ 0.10	. .	+ 4.75	23 49 20.89	+ 0.43
	2	Venus N. . . .	H.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	3	Polaris	H.	.	. .	. .	35.0	2.5	25.0	50.5	13.0	. .	. .	10 25.20	+ 0.33	. .	+ 4.78	1 10 30.31	+ 1.70
	4	Uranus . . .	H.	2	5.3	7.6	. .	. .	. .	. .	27.4	29.2	32.2	40 18.54	+ 0.14	. .	+ 4.83	6 40 23.51	. .
	5	ε Canis Majoris . .	H.	3	8.7	11.7	13.4	20.5	22.7	25.0	32.2	33.6	36.7	53 22.72	+ 0.04	+ 4.81	+ 4.83	6 53 27.59	0.00
	6	α Canis Minoris .	H.	3	7.3	9.8	11.4	17.6	19.6	21.6	27.7	29.3	31.8	32 19.57	+ 0.11	+ 4.95	+ 4.84	7 32 24.52	− 0.13
	7	λ Ursæ Minoris, S.P.	H.	4	. .	. .	2.0	11.0	25.0	. .	. .	. .	. .	55 26.27	+ 0.03	. .	+ 4.85	7 55 31.15	+ 5.44
	8	ι Ursæ Majoris .	H.	2	47.6	51.3	53.7	3.1	5.9	9.1	18.4	20.6	24.4	50 6.01	+ 0.16	. .	+ 4.86	8 50 11.03	+ 0.10
	9	σ² Ursæ Majoris .	H.	3	9.2	16.0	20.5	36.2	41.1	47.0	3.5	7.1	13.5	58 41.57	+ 0.18	. .	+ 4.86	8 58 46.61	− 0.20
	10	β Cephei, S. P. . .	H.	3	13.9	21.1	25.3	43.3	49.4	55.3	13.2	18.0	25.2	26 49.41	+ 0.20	. .	+ 4.87	9 26 54.48	+ 0.27
	11	ρ Leonis	H.	4	35.4	38.2	39.5	45.7	47.8	50.0	56.1	57.6	0.2	25 47.83	+ 0.12	+ 4.78	+ 4.88	10 25 52.83	+ 0.06
	12	Polaris, S. P. . .	H.	4	. .	. .	13.0	50.0	25.0	2.0	36.0	. .	. .	10 25.20	+ 0.07	. .	+ 4.91	1 10 30.18	+ 1.93
	13	Moon II, S.	H.	3	30.3	33.1	34.7	41.1	43.1	45.1	51.4	53.2	55.5	0 43.06	− 0.20	. .	+ 4.92	14 0 47.78	−56.44
	14	α Cygni	E.	.	32.1	35.8	38.0	46.7	49.5	52.3	1.1	3.2	7.0	36 49.52	+ 0.21	. .	+ 4.77	20 36 54.50	0.00
13	15	Sun I, S. . . .	E.	.	10.6	13.4	15.0	21.2	23.4	25.4	31.9	33.5	36.0	45 23.38	− 0.03	. .	+ 4.78	21 45 28.13	. .
	16	Sun II, N. . .	E.	.	. .	. .	. .	. .	. .	. .	45.6	47.2	49.8	47 37.24	− 0.03	. .	+ 4.78	21 47 41.99	. .
	17	Venus I, S. . .	E.	.	28.1	30.6	32.0	38.2	40.3	42.3	48.7	50.1	52.5	53 40.31	+ 0.02	. .	+ 4.81	23 53 45.14	+ 0.44
	18	α Andromedæ . .	E.	.	14.2	17.1	18.9	26.0	28.3	30.6	37.6	39.2	42.1	1 28.22	+ 0.13	+ 4.92	+ 4.81	0 1 33.16	+ 0.11
	19	Polaris	E.	.	. .	. .	35.0	57.5	21.5	42.5	7.5	. .	. .	10 20.80	+ 6.00	. .	+ 4.82	1 10 31.62	+ 3.72
	20	κ Cephei, S. P. . .	E.	.	. .	. .	52.8	2.3	11.2	20.7	30.6	. .	. .	13 11.52	− 0.52	. .	+ 4.90	8 13 15.90	+ 3.23
	21	ι Ursæ Majoris . .	E.	.	. .	. .	59.4	2.5	5.7	8.8	10.7	. .	. .	50 5.42	+ 0.24	. .	+ 4.91	8 50 10.57	− 0.36
	22	σ² Ursæ Majoris . .	E.	.	. .	2.5	6.8	13.2	45.5	53.9	56.1	59.2	1.6	58 41.10	+ 0.44	. .	+ 4.91	8 58 46.45	− 0.36
	23	α Hydræ	E.	.	49.7	52.6	54.1	0.4	2.5	4.5	10.6	12.2	14.5	21 2.34	− 0.01	+ 4.89	+ 4.92	9 21 7.25	− 0.17
	24	Anonymous . .	E.	.	38.4	41.1	46.7	48.9	51.0	52.8	55.2	1.1	3.6	4 50.98	+ 0.08	. .	+ 4.93	10 4 55.99	. .
	25	ρ Leonis	E.	.	. .	. .	43.6	45.6	47.8	49.9	52.6	. .	. .	25 47.90	+ 0.06	+ 4.78	+ 4.93	10 25 52.89	+ 0.11
	26	Polaris, S. P. . .	E.	.	46.5	20.5	54.5	. .	. .	. .	. .	. .	. .	10 32.23	− 5.78	. .	+ 4.95	1 10 31.40	+ 3.84
	27	Moon II . . .	E.	.	. .	. .	59.3	1.2	3.4	5.6	9.8	11.5	14.1	53 1.22	− 0.03	. .	+ 4.98	14 53 6.17	−65.05
	28	β Libræ	E.	.	36.8	39.8	41.2	47.4	49.6	51.4	57.8	59.5	2.3	9 49.53	− 0.01	+ 5.05	+ 4.98	15 9 54.50	− 0.05
	29	β Lyræ	A.	4	51.1	54.2	56.1	3.5	5.8	8.3	15.6	17.4	20.5	45 5.83	+ 0.13	+ 5.37	+ 5.21	18 45 11.17	− 0.14
14	30	Sun I	A.	.	5.2	8.0	9.5	15.8	18.1	20.1	26.1	27.8	30.4	49 17.89	0.00	. .	+ 5.25	21 49 23.14	. .
	31	Sun II	A.	.	18.8	21.4	22.9	29.3	31.3	33.5	39.8	41.3	44.1	51 31.38	0.00	. .	+ 5.25	21 51 36.63	. .
	32	Polaris . . .	A.	2	55.0	40.0	45.0	. .	. .	. .	55.0	0.5	44.0	10 20.05	+ 2.59	. .	+ 5.30	1 10 28.34	+ 1.11
	33		A.	2	. .	. .	33.0	59.0	17.0	43.0	8.5	. .	. .						
	34	ε Tauri	A.	3	36.7	39.4	41.0	47.4	49.6	51.6	58.2	59.8	2.7	20 49.60	+ 0.09	+ 5.36	+ 5.34	4 20 55.03	− 0.02
	35	Anonymous . .	A.	4	47.5	50.5	56.7	59.3	. .	3.6	6.0	12.3	15.0	32 1.36	+ 0.11	. .	+ 5.34	4 32 6.81	+ 6.90
	36	ι Aurigæ . . .	A.	3	4.5	7.3	9.4	16.8	19.3	21.7	29.0	30.8	33.8	48 19.18	+ 0.12	+ 5.32	+ 5.35	4 48 24.65	0.00
	37	11 Orionis . . .	A.	4	44.1	46.7	48.1	54.8	56.8	58.9	5.3	6.8	9.5	56 56.78	+ 0.08	+ 5.36	+ 5.36	4 57 2.22	− 0.04
	38	α Orionis . . .	A.	5	44.6	47.1	48.7	54.8	56.9	59.1	5.3	6.8	9.3	47 56.96	+ 0.06	+ 5.30	+ 5.36	5 48 2.38	+ 0.06
	39	δ Ursæ Minoris, S. P.	A.	1	. .	. .	. .	11.5	. .	6.0	29.0	18.5	. .	14 36.30	− 0.83	. .	+ 5.36	6 14 40.83	− 1.21
	40	Anonymous . .	A.	.	. .	. .	59.1	1.2	3.2	5.4	7.4	. .	. .	29 3.26	+ 0.08	. .	+ 5.36	6 29 8.70	. .
	41	γ Geminorum . .	A.	.	47.8	50.4	52.3	58.5	0.6	2.8	9.1	10.6	13.4	30 0.61	+ 0.08	+ 5.42	+ 5.36	6 30 6.05	− 0.06
	42	51 Cephei . . .	A.	.	38.0	30.0	4.5	29.0	12.0	54.7	. .	. .	. .	38 53.38	+ 1.39	. .	+ 5.36	6 38 0.13	+ 0.91
	43	ε Canis Majoris .	A.	2	8.1	10.9	13.0	. .	21.9	. .	31.4	33.2	36.1	53 22.09	− 0.07	+ 5.53	+ 5.36	6 53 27.38	− 0.19
	44	δ Canis Majoris .	A.	2	43.6	46.5	48.4	55.1	57.2	59.5	6.3	8.2	10.9	2 57.30	− 0.06	. .	+ 5.36	7 3 2.60	− 0.13
	45	δ Geminorum . .	A.	3	56.6	59.4	1.1	7.6	9.9	12.1	18.9	20.6	23.2	12 9.82	+ 0.10	+ 5.31	+ 5.37	7 12 15.40	+ 0.03
	46	Melete	A.	4	. .	. .	. .	. .	. .	. .	15.2	16.8	20.2	40 7.27	+ 0.06	. .	+ 5.38	8 40 12.71	. .
	47	ι Ursæ Majoris . .	A.	4	50.5	52.9	59.1	2.2	5.2	8.2	11.4	17.7	20.1	51 5.25	+ 0.17	. .	+ 5.38	8 50 10.80	− 0.14
	48	κ Cancri	A.	5	19.2	21.7	23.6	29.5	31.8	33.7	40.0	41.5	44.1	0 31.68	+ 0.07	+ 5.21	+ 5.39	9 0 37.14	+ 0.18
	49	Anonymous . .	A.	4	48.1	50.6	52.4	58.5	0.8	2.9	9.1	10.7	13.3	10 0.71	+ 0.07	. .	+ 5.39	9 10 6.17	. .
	50	α Hydræ	A.	3	49.7	52.4	53.8	59.8	1.9	4.2	10.2	11.7	14.4	21 2.01	+ 0.01	+ 5.41	+ 5.39	9 21 7.41	− 0.02

4. Observed over B_1, B_2, and D in R. A.

13. A mistake of half a revolution was made in the reduction of the nadir observations. The correction — 7″.6 is applied to the results given in subsequent sections.

14.28. Illumination very bad.

15. Revolutions doubtful.

16. Probably one revolution small.

20. Second not marked on sheet.

20.40. Wire A used.

22. Sets D and E in R. A.

38.44.46.49. Wire B used.

39. Assumed five revs. wrong in N. P.D.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Corrections.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ″	r ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	41 2	9 27.1	26.9	27.8	29.6	33	211	. .	. .	. .	046	51.2	41 4 17.2	780	+ 53.4	92 11 31.8	− 4.4
2	41 2	9 27.1	26.9	27.8	29.6	34	. .	067	. .	044	. .	51.2	41 4 2.9	. .	+ 53.4	92 11 17.5	− 4.4
3	310 14	9 22.5	22.5	25.3	26.8	25	115	102	072	065	109	51.2	310 18 23.9	768	+ 1 11.9	1 23 33.2	+ 7.1
4	15 20	9 26.8	26.7	29.2	28.4	30	. .	331	. .	115	. .	51.2	15 23 2.0	845	+ 17.1	66 29 40.3	
5	67 38	(?)9 25.0	26.2	28.0	27.4	37	. .	142	. .	021	. .	51.2	67 39 17.5	. .	+ 2 30.5	118 48 9.2	+ 8.6
6	33 16	28.2	28.0	0.1	0.1	27	802	650	. .	610	569	51.2	33 19 39.8	850	+ 40.9	88 26 41.9	+ 7.9
7	307 44	26.1	26.7	29.5	29.2	19	158	145	120	. .	. .	51.2	307 49 50.8	850	− 1 20.1	358 54 51.9	+ 7.1
8	350 16	29.2	28.5	1.2	0.8	23	. .	. .	. .	938	852	51.2	350 20 36.0	850	− 10.6	41 26 46.6	+ 5.6
9	331 10	28.9	28.5	1.5	0.0	24	. .	. .	. .	698	775	51.2	331 14 24.1	. .	− 34.2	22 20 11.1	+ 5.6
10	288 48	25.2	26.0	29.0	27.4	11	769	759	. .	. .	. .	51.2	288 55 41.8	860	− 3 0.5	339 59 2.5	+ 6.8
11	28 50	28.0	27.1	29.1	29.4	25	340	358	. .	212	212	51.2	28 54 16.9	865	+ 34.5	80 1 12.6	+ 6.9
12	307 26	24.7	25.0	28.2	27.7	19	961	008	956	974	934	51.2	307 31 39.8	860	− 1 21.2	358 36 39.8	+ 6.0
13	47 20	28.2	29.1	1.0	1.0	25	. .	. .	225	125	948	51.2	47 24 18.2	860	+ 1 7.8	98 31 47.2	
14	354 2	10 2.5	2.8	28.3	28.1	29	201	116	. .	040	. .	50.0	354 5 15.7	740	+ 6.3	45 11 30.6	+ 5.0
15	52 30	9 5.0	7.0	7.5	7.5	28	563	. .	. .	. .	. .	50.0	52 33 47.6	. .	+ 1 18.2	103 41 27.1	− 7.0
16	51 58	9 9.0	9.1	11.0	9.9	29	. .	. .	. .	. .	125	50.0	52 1 34.5	690	+ 1 16.8	103 9 12.5	− 7.0
17	40 30	10 2.8	2.3	1.8	2.3	30	306	218	. .	425	318	50.0	40 32 54.6	. .	+ 50.9	91 40 6.7	− 4.4
18	10 28	10 5.7	5.4	5.9	6.5	26	. .	. .	. .	767	. .	50.0	10 31 44.8	650	+ 11.0	61 38 17.0	− 0.6
19	310 14	10 0.4	29.9	1.3	1.7	24	475	538	493	485	525	50.0	310 18 25.2	640	− 1 9.8	1 23 36.6	+10.3
20	296 8	10 0.8	2.6	4.7	4.4	16	. .	020	202	033	. .	49.2	296 14 31.7	. .	− 2 2.0	347 18 50.9	+ 7.5
21	350 16	0.8	0.5	1.8	1.5	23	. .	708	. .	575	695	49.2	350 20 37.0	. .	− 10.3	41 26 47.9	+ 7.0
22	331 10	10 3.6	5.2	4.2	5.2	24	. .	. .	. .	430	490	49.2	331 14 21.5	. .	− 33.1	22 20 9.6	+ 4.4
23	30 46	10 5.8	7.2	5.6	7.3	32	928	. .	. .	. .	903	49.2	46 58 9.9	. .	+ 1 4.5	98 5 35.6	+ 7.6
24	23 20	10 5.8	6.5	5.6	6.0	34	. .	035	. .	895	. .	49.2	23 21 54.3	710	+ 26.0	74 28 41.5	
25	28 50	2.5	2.5	3.0	3.0	24	803	942	. .	850	758	49.2	28 54 17.3	. .	+ 33.3	80 1 11.8	+ 6.0
26	307 26	10 0.2	1.2	2.0	2.5	18	500	128	410	601	245	49.2	307 31 40.9	700	− 1 18.2	358 36 43.9	+10.3
27																	
28	47 42	2.0	2.8	2.4	3.4	25	100	080	. .	. .	. .	49.2	47 46 14.5	800	+ 1 7.7	98 53 43.4	+ 8.0
29	. .	. . .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . . .	846			
30																	
31																	
32 33	310 14	0.5	0.7	. .	2.0	24	496	430	650	548	582	42.0	310 18 16.1	760	− 1 11.8	1 23 25.5	− 1.0
34	19 56	10 1.0	1.0	2.6	3.1	24	520	519	. .	316	316	43.0	20 0 18.5	828	+ 22.5	71 7 2.2	+ 0.2
35	12 16	0.0	0.5	2.0	1.4	.	. .	. .	. .	544	554	43.0	12 20 2.4	829	+ 13.5	63 26 37.1	−20.3
36	5 52	10 2.2	2.5	4.3	3.1	.	261	133	. .	090	110	43.0	5 56 22.7	830	+ 6.4	57 2 50.3	+ 1.2
37	23 36	10 7.1	7.0	8.1	7.5	24	236	100	. .	838	960	43.0	23 40 19.2	832	+ 27.2	74 47 7.6	+ 1.4
38	31 28	9 28.8	0.5	0.8	0.5	22	226	160	. .	030	950	43.0	31 30 26.5	840	+ 38.1	82 37 25.8	− 0.3
39	305 26	10 4.8	5.5	8.3	7.2	25	312	310	. .	230	230	43.0	305 31 17.0	846	− 1 27.0	356 36 11.2	+ 0.6
40																	
41																	
42	311 36	10 3.5	4.0	6.5	5.5	24	532	495	520	. .	. .	43.0	311 40 14.0	. .	− 1 9.9	2 45 25.3	− 0.5
43																	
44	65 0	1.0	2.0	3.5	3.0	.	. .	190	. .	030	. .	43.0	65 2 54.3	844	+ 2 13.0	116 11 28.5	+ 2.0
45	16 36	10 0.4	0.0	1.6	0.9	25	086	079	. .	010	005	43.0	16 40 10.0	841	+ 18.6	67 46 49.8	+ 0.9
46	30 46	9 24.5	24.0	27.9	26.0	.	390	352	. .	080	094	43.6	30 47 59.0	849	+ 37.3	81 54 57.5	− 2.0
47	350 16	9 26.1	26.1	29.1	26.9	24	. .	. .	. .	040	972	43.6	350 20 29.6	. .	− 10.6	41 26 40.2	+ 0.5
48	27 38	9 26.1	26.5	28.1	27.2	28	. .	. .	. .	. .	050	43.6	27 41 27.2	850	+ 32.6	78 48 21.0	
49	26 40	3.0	2.5	5.0	3.2	.	. .	309	. .	060	100	43.6	26 40 4.5	. .	+ 31.3	77 46 57.0	
50	46 54	9 27.9	29.4	31.0	30.5	25	. .	. .	. .	754	602	43.6	46 58 0.7	849	+ 1 6.7	98 5 28.6	+ 0.5

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
18	30.170	42.0	74.5
28	30.350	27.0	73.0

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
13	− 42 1.2	− 15 38.6

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	CORRECTIONS. Mean wire.	Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Feb. 14	1	ε Leonis	A.	3	. .	. .	42.5	44.6	47.1	49.2	51.5	56.1	57.7	38 47.02	+ 0.10	+ 5.38	+ 5.40	9 38 52.52	+ 0.01
	2	μ Leonis	A.	.	57.1	59.8	1.6	8.5	10.8	13.1	19.8	21.8	24.5	45 10.78	+ 0.11	+ 5.42	+ 5.40	9 45 16.29	+ 0.03
	3	Danaë	A.	2	. .	12.3	15.1	19.7	24.6	29.5	33.5	35.8	. .	3 24.36	+ 0.08	. .	+ 5.40	10 3 29.84	. .
	4	γ¹ Leonis	A.	5	. .	. .	28.5	32.8	. .	41.6	47.7	. .	. .	12 37.25	+ 0.09	+ 5.35	+ 5.40	10 12 42.74	+ 0.07
	5	ρ Leonis	A.	4	. .	. .	39.1	43.1	. .	51.5	55.6	. .	59.8	25 47.34	+ 0.06	+ 5.35	+ 5.40	10 25 52.80	+ 0.01
	6	α Coronæ Borealis .	A.	5	46.6	49.3	51.2	58.1	0.4	2.6	9.5	11.2	14.0	29 0.32	+ 0.11	+ 5.43	+ 5.45	15 29 5.88	+ 0.02
	7	α Serpentis . . .	A.	5	28.2	30.6	32.3	38.4	40.5	42.5	48.6	50.3	52.8	37 40.47	+ 0.06	+ 5.47	+ 5.47	15 37 46.00	0.03
	8	Moon II, S. . .	A.	5	40.6	43.2	44.8	51.3	53.7	55.7	2.1	3.7	6.3	44 53.49	− 0.01	. .	+ 5.47	15 44 58.95	−64.92
	9	δ Scorpii	A.	5	13.4	16.2	17.9	24.4	26.6	28.7	35.3	37.1	40.0	52 26.62	− 0.04	+ 5.37	+ 5.47	15 52 32.05	− 0.10
	10	β¹ Scorpii	A.	5	27.4	30.1	31.9	38.2	40.4	42.5	49.1	50.7	53.4	57 40.41	− 0.03	+ 5.50	+ 5.47	15 57 45.85	+ 0.03
	11	β² Scorpii	A.	5	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	12	δ Ophiuchi . . .	A.	5	7.8	10.4	11.9	18.1	20.2	22.2	28.4	29.8	32.4	7 20.13	+ 0.03	+ 5.50	+ 5.47	16 7 25.63	− 0.01
	13	Saturn I, S. . .	A.	3	33.5	. .	37.8	42.0	46.4	50.6	55.0	. .	59.2	13 46.36	− 0.03	. .	+ 5.47	16 13 51.80	.
	14	Saturn II, N. . .	A.	3	34.5	. .	38.9	43.1	47.5	51.9	56.3	. .	0.5	13 47.53	− 0.03	. .	+ 5.47	16 13 52.90	. .
	15	α Aquilæ	E.	.	1.6	4.2	5.8	11.9	14.0	16.0	22.2	23.8	26.3	44 13.98	+ 0.09	+ 5.38	+ 5.38	19 14 19.45	+ 0.01
	16	α Cygni	E.	.	31.7	35.3	37.5	46.2	49.0	51.9	0.6	2.6	6.2	36 49.01	+ 0.20	+ 5.32	+ 5.39	20 36 54.60	+ 0.07
15	17	Sun I, N. . . .	E.	.	. .	. .	7.5	9.4	11.5	13.6	15.8	. .	. .	53 11.56	+ 0.04	. .	+ 5.40	21 53 17.00	. .
	18	Sun II, S. . . .	E.	.	12.7	15.0	16.7	23.1	24.9	26.9	33.2	34.9	37.7	55 25.02	+ 0.04	. .	+ 5.40	21 55 30.46	. .
	19	Venus I, N. . .	E.	.	15.7	17.9	19.5	25.5	27.6	29.6	36.0	37.3	40.0	2 27.68	+ 0.07	. .	+ 5.42	0 2 33.17	+ 0.44
	20	Venus, S. . . .	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
17	21	Moon II . . .	T.	3	58.9	3.4	. .	9.9	. .	14.3	20.9	. .	25.4	19 12.13	− 0.20	. .	+ 4.15	18 19 16.08	−64.72
	22	α Lyræ	T.	3	7.3	10.5	12.6	20.4	22.9	25.5	33.4	35.3	38.7	32 22.96	+ 0.05	+ 4.15	+ 4.15	18 32 27.16	0.00
	23	α Aquilæ . . .	T.	3	. .	5.2	9.1	11.4	13.6	15.5	17.5	21.6	. .	44 13.41	− 0.20	+ 6.30	+ 6.36	19 44 19.57	+ 0.07
	24	α Cygni	T.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
18	25	Sun I, N. . . .	A.	3	36.4	39.0	40.5	46.9	49.1	51.2	57.4	59.4	1.4	4 49.03	− 0.35	. .	+ 6.40	22 4 55.08	. .
	26	Sun II, S. . . .	A.	2	. .	57.1	59.4	1.7	3.8	5.8	10.1	11.5	14.2	7 1.62	− 0.35	. .	+ 6.40	22 7 7.67	. .
	27	Mercury I, S. . .	A.	4	16.7	19.7	21.3	27.5	29.5	31.5	37.7	39.1	41.9	11 29.43	− 0.28	. .	+ 6.42	23 11 35.57	+ 0.22
	28	α Andromedæ . .	A.	3	13.1	15.9	17.7	24.6	26.9	29.3	36.3	38.0	40.9	1 26.97	− 0.08	+ 6.35	+ 6.44	0 1 33.33	+ 0.06
	29	Polaris. . . .	A.	3	. .	. .	22.0	48.5	9.0	. .	0.0	. .	. .	10 11.00	+ 9.68	. .	+ 6.45	1 10 27.13	+ 2.40
	30	ε Tauri	A.	5	35.5	38.2	40.0	46.4	48.6	50.6	57.1	58.7	1.4	20 48.50	− 0.15	+ 6.62	+ 6.50	4 20 54.85	− 0.12
	31	Anonymous . .	A.	.	. . .	. . .	56.1	58.1	0.2	2.3	9.1	10.1	13.6	32 0.07	− 0.10	. .	+ 6.50	4 32 6.47	+ 0.97
	32	ι Aurigæ . . .	A.	5	3.5	6.5	8.4	15.6	18.1	20.5	27.6	29.5	32.5	48 18.02	− 0.06	+ 6.58	+ 6.51	4 48 24.47	− 0.10
	33	δ Ursæ Min., S. P.	A.	5	7.0	23.9	57.5	. .	. .	. .	22.2	56.1	13.4	14 39.93	− 4.20	. .	+ 6.53	18 14 42.26	− 0.83
	34		A.	.	. .	. .	48.8	14.5	40.7	5.4	30.0	. .	. .						
	35	γ Geminorum . .	A.	5	47.0	49.7	51.2	57.4	59.6	1.4	8.1	9.7	12.4	29 59.61	− 0.16	+ 6.60	+ 6.54	6 30 5.99	− 0.06
	36	51 Cephei	A.	5	33.3	27.0	59.0	21.5	5.5	. .	. .	. .	. .	37 47.44	+ 4.82	. .	+ 6.54	6 37 58.80	+ 0.51
	37	Uranus I, S . .	A.	5	27.1	29.0	33.6	35.6	37.7	40.1	42.3	46.6	48.3	39 37.81	− 0.12	. .	+ 6.54	6 39 44.23	+ 0.11
	38	Uranus, N. . .	A.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	39	H Præsepe . . .	A.	.	57.3	0.6	2.2	8.6	10.7	13.0	19.0	20.5	24.3	32 10.69	+ 0.10	. .	+ 6.57	8 32 17.36	+ 5.74
	40	Melete	A.	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	41	ε Hydræ	A.	5	29.6	32.2	33.8	39.9	41.8	43.9	50.2	51.8	54.3	39 41.94	− 0.21	+ 6.58	+ 6.57	8 39 48.30	− 0.01
	42	κ Cancri	A.	.	18.4	. .	26.4	28.6	30.6	32.8	34.8	. .	43.0	0 30.67	− 0.19	+ 6.48	+ 6.58	9 0 37.06	+ 0.10
	43	Melpomene . .	A.	4	23.3	25.7	27.5	33.7	35.4	37.7	44.1	45.7	48.2	5 35.75	− 0.18	. .	+ 6.58	9 5 42.15	. .
	44	Danaë	A.	2	28.4	30.8	32.6	. .	40.7	. .	49.4	51.1	54.0	59 41.00	− 0.17	. .	+ 6.59	9 59 47.42	. .
	45	α Leonis	A.	.	. .	. .	13.2	15.2	17.3	19.4	23.6	25.2	27.8	1 15.25	− 0.18	+ 6.59	+ 6.59	10 1 21.66	− 0.01
19	46	Sun I, N. . . .	H.	3	27.4	29.5	31.4	36.0	38.1	40.2	42.2	44.2	. .	8 39.96	− 0.26	. .	+ 6.67	22 8 46.37	. .
	47	Sun II, S. . . .	H.	3	39.7	42.4	44.3	50.3	52.4	54.4	0.6	2.2	5.1	10 52.38	− 0.26	. .	+ 6.67	22 10 58.79	. .
	48	Mercury I, (center)	H.	2	29.9	32.3	34.0	40.2	42.2	44.1	50.2	51.7	54.4	15 42.12	− 0.22	. .	+ 6.68	23 15 48.58	+ 0.23
	49	α Andromedæ . .	H.	3	12.5	15.4	17.2	24.1	26.6	28.8	35.5	37.4	40.2	1 26.52	− 0.04	+ 6.74	+ 6.69	0 1 33.17	− 0.05
	50	Venus I, S. . .	H.	1	47.2	50.0	51.6	57.5	59.5	1.8	8.0	9.3	2.0	19 59.65	− 0.20	. .	+ 6.70	0 20 6.15	+ 0.45

1.3.4.7.9.10.11.26.27.35.37.38.39.40.43.44. Wire B used.
46. Seems one rev. wrong in N. P. D.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° ″	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	14 28	9 25.5	27.0	29.5	27.5	.	. .	. .	. .	111	000	43.6	14 30 44.1	850	+ 16.1	65 37 21.4	+ 0.1
2																	
3	23 24	9 29.0	1.5	0.6	29.4	.	150	955	. .	611	611	43.6	23 25 30.1	846	+ 26.9	74 32 18.2	− 1.4
4	18 20	0.0	0.7	3.0	1.9	.	759	980	. .	430	021	43.6	18 22 50.1	847	+ 20.6	69 29 31.9	−10.7
5	28 50	1.5	1.0	2.6	2.1	25	155	144	. .	015	939	43.6	28 54 9.2	848	+ 34.4	80 1 4.8	− 1.0
6	11 40																
7	32 0	1.3	2.5	3.5	3.1	.	091	041	. .	889	705	43.6	32 2 27.1	813	+ 38.6	83 9 26.9	− 0.3
8	54 12	9 28.5	28.5	0.5	29.5	23	. .	790	795	680	. .	43.6	54 16 31.7	812	+ 1 25.6	105 24 18.5	
9	61 4	9 28.7	29.0	1.0	0.6	22	060	971	. .	811	711	43.6	61 6 15.0	810	+ 1 51.4	112 14 27.6	− 0.8
10	58 16	28.6	29.5	1.0	1.0	22	. .	. .	. .	350	398	43.6	58 18 21.3	. .	+ 1 39.7	109 26 22.2	− 0.5
11	58 16	28.6	29.5	1.0	1.0	23	. .	. .	. .	110	112	43.6	58 18 8.2	. .	+ 1 39.7	109 26 9.1	−28.2
12	42 10	3.8	4.1	6.0	4.5	26	353	381	. .	180	170	43.6	42 13 47.8	808	+ 56.0	93 21 5.0	− 1.4
13	58 2	29.1	0.0	1.2	0.9	.	. .	159	. .	960	. .	43.6	58 4 44.0	808	+ 1 38.8	109 12 44.0	− 0.7
14	58 2	29.1	0.0	1.2	0.9	.	. .	. .	. .	. .	821	43.6	58 4 27.1	808	+ 1 38.8	109 12 27.1	− 0.7
15	30 18	2.2	0.8	1.3	0.4	26	. .	. .	. .	734	705	43.0	30 21 42.9	740	+ 35.6	81 28 39.7	− 1.8
16	354 2	0.7	2.2	0.7	0.7	29	. .	038	. .	940	883	43.0	354 5 9.8	710	− 6.2	45 11 24.8	− 1.3
17	51 18	9 23.8	24.2	23.5	24.7	32	708	028	. .	. .	. .	43.0	51 20 32.6	. .	+ 1 14.5	102 28 8.3	− 6.9
18	51 50	9 21.3	21.5	20.3	21.8	30	. .	. .	. .	275	092	43.0	51 53 0.0	670	+ 1 16.0	103 0 37.2	− 7.0
19	39 26	3.3	0.6	1.3	1.7	27	. .	215	. .	330	. .	43.0	39 29 34.8	595	+ 48.3	90 36 44.3	− 4.3
20	39 26	3.3	0.6	1.3	1.7	26	160	. .	. .	. .	095	43.0	39.29 52.3	. .	+ 48.3	90 37 1.8	− 4.3
21																	
22																	
23	30 18	9 28.0	28.5	28.0	0.0	26	786	791	. .	679	658	40.0	30 21 43.3	788	+ 36.0	81 28 40.5	− 1.3
24	354 2	0.5	29.6	1.2	1.2	28	898	874	. .	700	735	40.0	354 5 10.0	780	− 6.3	45 11 24.9	− 2.1
25	50 14	9 24.9	24.2	23.7	26.0	26	330	370	. .	. .	. .	40.0	50 17 53.5	. .	+ 1 13.3	101 25 28.0	− 6.9
26	50 46	9 26.5	26.6	26.5	27.3	24	. .	. .	. .	469	490	40.0	50 50 18.7	754	+ 1 14.7	101 57 54.6	− 6.9
27	43 22	28.1	28.0	28.1	28.5	25	. .	. .	. .	838	775	40.0	43 23 27.7	732	+ 57.2	94 30 46.1	− 6.1
28	10 30	3.9	3.4	3.3	4.9	24	691	527	. .	246	279	40.5	10 31 44.7	719	+ 11.2	61 38 17.1	− 1.4
29	310 14	1.8	1.6	2.8	2.7	24	440	371	376	370	381	40.5	310 18 16.1	699	− 1 10.8	1 23 26.5	− 0.7
30	19 58	27.0	27.0	28.5	28.6	24	770	844	. .	700	583	41.0	20 2 15.9	738	+ 22.1	71 8 59.2	− 2.9
31																	
32	5 52	2.0	1.1	2.9	2.0	24	. .	. .	. .	049	084	41.0	5 56 20.9	737	+ 6.3	57 2 48.4	− 0.7
33 34	305 26	0.5	28.5	4.0	3.8	20	619	619	623	598	656	41.0	305 31 14.3	757	− 1 25.2	356 36 10.3	+ 0.5
35	22 20	2.2	2.0	3.9	3.9	20	. .	200	. .	100	010	41.0	22 22 51.4	. .	+ 25.1	73 29 37.7	0.0
36																	
37	15 20	29.8	1.2	0.0	0.6	22	540	480	. .	. .	. .	41.0	15 22 19.9	752	+ 16.7	66 28 57.8	− 0.1
38	15 20	29.8	1.2	0.0	0.6	22	. .	. .	. .	539	480	41.0	15 22 16.2	. .	+ 16.8	66 28 54.2	− 0.1
39	17 52	28.0	28.6	0.0	0.1	26	. .	. .	. .	. .	215	41.0	17 53 20.5	. .	+ 19.7	69 0 1.4	+13.9
40	30 26	2.5	2.9	4.6	3.5	27	130	098	. .	. .	. .	41.0	30 27 6.3	. .	+ 35.9	81 34 3.4	− 2.0
41	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . .	762			
42	27 38	1.0	0.5	1.3	1.5	27	. .	. .	. .	630	670	41.0	27 41 26.8	760	+ 32.0	78 48 20.0	− 1.0
43	25 4	29.5	29.4	0.8	29.6	22	. .	115	. .	. .	040	41.0	25 6 24.7	. .	+ 28.6	76 13 14.5	− 2.4
44	23 20	1.5	1.2	2.2	2.0	25	971	. .	. .	949	925	41.0	23 21 23.6	. .	+ 26.3	74 28 11.1	− 1.4
45	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . .	754			
46	49 54	9 28.3	29.7	27.4	29.4	31	606	730	. .	. .	. .	41.5	49 56 29.5	. .	+ 1 9.2	101 4 0.0	− 6.8
47	50 26	10 0.2	29.8	28.6	1.5	29	. .	. .	. .	098	040	41.5	50 29 6.8	572	+ 1 10.6	101 36 38.6	− 6.9
48	42 38	3.6	3.0	1.8	4.0	29	689	662	. .	701	673	41.3	42 40 54.8	558	+ 53.6	93 48 9.6	− 6.1
49	10 28	10 6.1	5.2	4.5	6.6	26	215	174	. .	099	055	41.2	10 31 46.8	550	+ 10.8	61 38 18.8	+ 0.2
50	37 20	6.6	6.2	4.6	5.5	26	108	. .	. .	. .	888	41.2	37 23 48.6	. .	+ 44.3	88 30 54.1	− 4.2

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
47	29.962	46.5	66.0

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	′ ″
8	− 44 58.0	− 15 10.4

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar't.	Clock adopted.		
														m. s.	s.	s.	s.	h. m. s.	s.
1868. Feb. 19	1	Venus, N.	H.	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	2	Polaris	H.	4	. .	. .	17.0	42.5	6.0	29.0	54.0	. .	. .	10 5.70	+11.29	. .	+ 6.71	1 10 23.70	− 0.26
	3	Weisse 1210	H.	2	47.4	50.1	51.7	57.9	0.3	2.5	8.8	10.3	13.1	57 0.23	− 0.11	. .	+ 6.69	3 57 6.81	+ 6.07
	4	γ Tauri	H.	2	58.0	0.6	2.3	8.5	10.6	12.7	19.1	20.7	23.5	12 10.67	− 0.12	+ 6.69	+ 6.74	4 12 17.29	+ 0.05
	5	δ Ursæ Minoris, S.P.	H.	4	. .	. .	50.5	15.0	43.0	8.0	31.5	. .	. .	14 41.60	− 4.89	. .	+ 6.76	18 14 43.27	− 0.10
	6	γ Geminorum	H.	4	46.6	49.3	50.8	57.2	59.4	1.5	7.7	9.4	12.1	29 59.34	− 0.11	+ 6.82	+ 6.77	6 30 6.00	− 0.5
	7	Uranus	H.	4	18.7	21.5	23.2	29.9	32.1	34.2	41.1	42.7	45.2	40 32.07	− 0.07	. .	+ 6.77	6 40 38.77	. .
	8	τ Draconis, S. P.	H.	3	13.7	22.3	27.5	48.9	55.1	3.8	24.2	29.5	38.1	18 55.90	− 1.09	. .	+ 6.78	19 18 1.59	− 0.03
	9	α² Geminorum	H.	3	50.4	53.2	55.1	2.4	4.6	7.3	14.5	16.2	19.1	25 4.75	− 0.01	+ 6.77	+ 6.78	7 25 11.52	+ 0.21
	10	β Geminorum	H.	3	54.5	57.6	59.3	6.1	8.5	10.8	17.6	19.6	22.4	37 8.49	− 0.04	+ 6.82	+ 6.78	7 37 15.23	− 0.04
	11	ε Draconis, S. P.	H.	3	51.6	59.7	4.7	22.3	27.6	34.1	51.2	56.7	3.7	48 27.95	− 0.94	. .	+ 6.78	19 48 33.79	− 0.01
	12	λ Ursæ Minoris, S.P.	H.	3	. .	. .	. .	49.0	30.0	22.0	12.0	. .	. .	55 34.27	−14.89	. .	+ 6.79	19 55 26.17	− 2.72
	13	κ Cephei, S. P.	H.	3	11.5	22.0	30.2	. .	6.8	. .	44.4	52.1	3.8	13 7.39	− 1.26	. .	+ 6.79	20 13 12.92	+ 0.02
	14	ι Ursæ Majoris	H.	4	45.6	49.5	51.7	0.9	4.3	7.2	16.3	18.7	22.6	50 4.09	+ 0.14	. .	+ 6.80	8 50 11.03	+ 0.10
	15	σ Ursæ Majoris	H.	3	7.5	14.1	18.3	34.3	39.5	45.3	1.3	5.1	11.8	58 39.69	+ 0.50	. .	+ 6.80	8 58 46.99	+ 0.18
	16	α Hydræ	H.	4	48.5	51.0	52.7	58.8	1.1	2.9	9.2	10.7	13.2	21 0.90	− 0.24	+ 6.78	+ 6.80	9 21 7.46	+ 0.02
	17	ρ Leonis	H.	4	33.8	36.3	37.8	44.1	46.2	48.2	54.3	55.9	58.3	25 46.10	− 0.15	+ 6.74	+ 6.82	10 25 52.88	+ 0.04
	18	l Leonis	H.	4	1.2	3.8	5.3	11.5	13.5	15.7	21.9	23.6	26.1	42 13.62	− 0.14	+ 6.79	+ 6.82	10 42 20.30	+ 0.10
	19	α Cygni	E.	.	30.5	34.0	36.0	45.1	47.7	50.5	59.2	1.3	4.8	36 47.68	+ 0.10	+ 6.84	+ 6.84	20 36 54.62	0.00
20	20	Sun I, N.	E.	.	17.6	19.9	21.8	28.1	30.2	32.2	38.8	40.2	42.6	12 30.16	− 0.26	. .	+ 6.93	22 12 36.83	. .
	21	Sun II, S.	E.	.	30.6	32.8	34.4	40.6	42.7	44.7	51.0	52.5	55.1	14 42.71	− 0.26	. .	+ 6.93	22 14 49.38	. .
21	22	ζ Cygni	N.	2	56.6	59.5	1.4	8.3	10.6	13.2	20.1	21.8	24.7	7 10.69	− 0.10	. .	+ 7.36	21 7 17.95	− 00.1
22	23	Sun, S.	N.	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	24	Sun, N.	N.	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	25	Mercury I, S.	N.	2	36.2	38.6	40.4	46.7	48.7	50.4	56.8	58.3	0.8	25 48.54	− 0.27	. .	+ 7.48	23 25 55.75	+ 0.25
	26	α Andromedæ	N.	3	12.0	15.0	16.7	23.5	25.8	28.0	35.1	36.8	39.8	1 25.86	− 0.10	+ 7.45	+ 7.49	0 1 33.25	+ 0.04
	27	γ Pegasi	N.	2	5.7	8.3	9.8	. .	18.3	. .	26.8	28.3	31.0	6 18.31	− 0.18	+ 7.37	+ 7.49	0 6 25.62	+ 0.10
	28	Venus I, S.	N.	3	52.7	55.3	56.8	. .	. .	. .	13.2	14.6	17.1	33 4.95	− 0.23	. .	+ 7.49	0 33 12.21	. .
	29	Venus II, N.	N.	3	. .	. .	1.5	3.6	5.7	7.7	9.8	. .	. .	33 5.67	− 0.23	. .	+ 7.49	0 33 12.93	. .
	30	Polaris	N.	.	. .	. .	. .	. .	9.0	30.5	55.5	. .	. .	10 8.23	+ 7.18	. .	+ 7.50	1 10 22.91	+ 1.26
	31	α Camelopardalis	N.	4	18.9	25.1	28.9	44.0	49.1	54.0	9.2	13.0	19.1	40 49.03	+ 0.24	. .	+ 7.54	4 40 56.81	− 0.52
	32	ε Ursæ Minoris, S.P.	N.	.	. .	. .	56.1	10.9	26.1	41.6	56.6	. .	. .	59 26.26	− 1.46	. .	+ 7.55	16 59 32.35	− 0.11
	33	α Aurigæ, (R.)	N.	3	. .	. .	44.1	47.1	50.0	52.8	55.8	. .	. .	6 49.96	− 0.17	. .	+ 7.55	5 6 57.34	+ 0.16
	34	β Tauri	N.	4	36.1	39.1	40.8	47.7	50.1	52.4	59.3	1.0	4.0	17 50.06	− 0.11	+ 7.55	+ 7.55	5 17 57.50	− 0.01
	35	δ Orionis	N.	3	56.7	59.2	0.8	7.0	9.0	11.1	17.1	18.6	21.2	25 8.97	− 0.25	+ 7.60	+ 7.55	5 25 16.27	− 0.07
	36	α Columbæ	N.	3	30.9	34.1	35.8	43.2	45.7	48.1	55.5	57.5	0.4	34 45.69	− 0.46	+ 7.57	+ 7.55	5 34 52.78	− 0.08
	37	δ Ursæ Minoris, S.P.	N.	.	. .	. .	48.7	13.3	39.7	5.5	30.5	. .	. .	14 39.42	− 3.15	. .	+ 7.56	6 14 53.83	− 0.50
	38	Uranus I, (center)	N.	.	1.4	4.1	5.9	. .	. .	. .	23.7	25.2	28.1	39 14.73	− 0.14	. .	+ 7.56	6 39 22.15	. .
	39	Uranus II	N.	.	. .	. .	10.6	12.8	15.0	17.1	19.4	. .	. .	39 14.98	− 0.14	. .	+ 7.56	6 39 22.40	. .
	40	50 Draconis, S. P.	N.	3	. .	. .	11.2	19.2	27.3	35.5	43.8	. .	. .	50 27.40	− 0.81	. .	+ 7.57	18 50 34.16	+ 0.12
	41	α Canis Minoris	N.	3	7.3	9.0	13.0	15.0	17.1	19.1	21.1	25.2	26.9	32 17.08	− 0.22	+ 7.69	+ 7.58	7 32 24.44	− 0.13
	42	β Geminorum	N.	3	. .	. .	3.1	5.3	7.8	10.0	12.3	. .	. .	37 7.70	− 0.11	+ 7.65	+ 7.58	7 37 15.17	− 0.07
	43	λ Ursæ Minoris, S.P.	N.	.	. .	. .	. .	18.0	28.0	47.5	. .	. .	. .	55 31.40	− 9.55	. .	+ 7.58	7 55 29.43	− 0.95
Mar. 10	44	Sun I, S.	A.	.	24.5	26.8	28.6	34.5	36.7	38.8	44.9	46.6	49.1	13 36.72	− 0.47	. .	+12.85	23 13 49.10	. .
	45	Sun II, N.	A.	.	3.9	36.4	37.9	44.2	46.3	48.5	54.6	56.2	58.6	15 46.29	− 0.47	. .	+12.85	23 15 58.67	. .
	46	Polaris	A.	2.1	. .	56.0	43.0	4.0	33.0	54.0	18.0	. .	. .	10 30.85	−29.86	. .	+12.88	1 10 13.87	+ 1.73
	47	α Arietis	A.	2	. .	. .	. .	. .	. .	35.8	40.3	42.1	44.7	59 31.46	− 0.80	+12.89	+12.89	1 59 43.55	+ 0.01
16	48	67 Piazzi	H.	4	19.1	26.1	30.4	47.1	53.0	58.3	15.4	19.5	26.6	16 52.83	+ 0.08	. .	+15.47	1 17 8.38	. .
	49	α Canis Minoris	H.	4	56.3	59.0	0.5	6.7	8.5	10.7	16.9	18.4	21.0	32 8.67	+ 0.05	+15.52	+15.47	7 32 24.19	− 0.07

31. Seconds uncertain. Two discordant marks on sheet.
44.45. Both wrong in N. P. D.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent. Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° ″	r. ″	″	″	″								° ′ ″		′ ″	° ′ ″	″
1	37 20	6.6	6.2	4.6	5.5	26	. .	913	. .	820	. .	41.2	37 23 35.3	545	+ 44.3	88 30 40.8	− 4.2
2	310 14	1.6	1.5	3.3	5.0	24	595	490	456	480	522	41.0	310 18 14.2	540	− 1 8.8	1 23 26.6	− 0.8
3	22 34	6.3	8.0	6.8	7.0	26	. .	. .	. .	608	. .	40.3	22 37 36.3	576	+ 24.4	73 44 21.9	−28.8
4	23 30	8.5	9.4	8.0	7.3	20	220	230	. .	058	090	40.3	23 34 59.3	587	+ 25.5	74 41 46.0	− 0.2
5	305 26	10 5.5	5.5	6.1	6.3	20	400	400	379	360	358	40.0	305 31 12.9	655	− 1 23.2	356 36 10.9	+ 1.4
6	22 20	6.3	6.2	6.1	6.0	29	752	643	. .	448	468	40.0	22 22 52.3	. .	+ 24.5	73 29 38.0	+ 0.3
7	15 18	8.0	7.1	7.2	7.5	24	143	130	. .	998	979	40.0	15 22 15.4	670	+ 16.4	66 28 53.0	− 0.1
8	291 54	3.5	3.0	3.7	5.1	7	. .	291	. .	159	. .	40.0	292 2 34.0	690	− 2 27.2	343 6 28.0	+ 0.1
9	6 40	6.6	5.5	6.1	5.8	28	610	640	. .	502	462	40.0	6 43 8.3	. .	+ 7.0	57 49 36.5	− 1.0
10	10 30	6.8	6.6	6.9	7.4	28	951	894	. .	764	722	40.0	10 33 3.0	. .	+ 11.2	61 39 35.4	− 0.8
11	288 48	3.4	3.8	4.5	4.7	23	552	511	. .	790	. .	40.0	288 52 23.7	. .	− 2 54.6	339 55 50.3	+ 1.8
12	307 44	4.1	4.0	5.1	5.8	18	. .	730	815	808	792	40.0	307 49 38.3	710	− 1 17.5	358 54 42.0	− 0.9
13	296 10	4.0	3.8	4.7	6.0	23	480	588	. .	. .	. .	40.0	296 14 22.8	. .	− 2 1.9	347 18 42.1	+ 0.6
14	350 16	5.6	4.9	5.6	5.2	23	502	405	. .	305	265	40.0	350 20 28.5	718	− 10.3	41 26 39.4	− 0.3
15	331 10	5.5	5.5	6.5	5.8	24	. .	320	. .	243	. .	40.0	331 14 14.3	. .	− 33.2	22 20 2.3	− 1.4
16	46 56	6.5	6.5	5.6	6.6	32	892	850	. .	660	638	40.0	46 58 3.1	725	+ 1 4.7	98 5 29.0	+ 0.1
17	28 50	4.1	2.2	2.4	3.7	24	700	720	. .	610	588	40.0	28 54 10.6	732	+ 33.4	80 1 5.2	− 0.8
18	27 36	10 5.0	4.2	4.6	5.4	30	332	241	. .	100	082	40.0	27 38 44.2	730	+ 31.7	78 45 37.1	+ 0.3
19	354 2	10 7.4	6.3	6.2	7.5	28	430	342	. .	196	237	40.5	354 5 12.0	655	− 6.2	45 11 27.0	− 0.5
20	49 32	2.1	0.5	29.2	1.4	28	025	442	. .	. .	. .	40.5	49 35 19.0	584	+ 1 8.7	100 42 48.9	− 6.8
21	50 4	9 24.0	24.8	24.9	26.4	27	. .	. .	. .	197	023	40.5	50 7 40.8	. .	+ 1 9.9	101 15 11.9	− 6.8
22	9 8	10 2.8	1.7	1.4	3.0	24	. .	239	. .	085	. .	41.6	9 12 20.7	825	+ 10.0	60 18 51.9	+ 1.6
23	49 19	12 0.9	0.2	29.8	0.5	28	250	362	. .	. .	. .	41.6	49 24 19.5	815	+ 1 12.0	100 31 52.7	− 6.8
24	48 47	12 7.1	6.8	5.1	8.1	28	. .	. .	. .	. .	970	41.6	48 52 1.5	. .	+ 1 10.7	99 59 33.4	− 6.7
25	40 44	4.5	3.7	4.4	5.3	27	. .	. .	141	. .	. .	41.6	40 47 32.7	805	+ 53.1	91 54 47.0	− 6.4
26	10 28	5.8	4.4	5.0	6.4	26	195	145	. .	048	032	41.6	10 31 47.9	. .	+ 11.4	61 38 20.5	+ 1.5
27	24 22	5.6	3.7	3.2	4.9	24	270	267	. .	145	005	41.6	24 26 18.4	795	+ 27.9	75 33 7.5	+ 0.9
28	35 46	4.5	3.0	3.1	4.9	27	761	. .	. .	. .	712	41.6	35 49 24.3	. .	+ 44.4	86 56 29.9	− 4.1
29	35 46	4.5	3.0	3.1	4.9	28	. .	626	. .	581	. .	41.6	35 49 10.9	801	+ 44.4	86 56 16.5	− 4.1
30	310 14	4.6	3.2	4.7	5.4	24	. .	. .	128	105	175	41.6	310 18 18.7	796	− 1 12.4	310 23 27.5	− 0.4
31	332 44	1.1	1.2	2.5	2.6	28	. .	682	542	532	. .	42.2	332 47 14.3	855	− 32.1	23 53 3.4	+ 0.2
32	301 6	3.9	2.0	5.1	6.1	24	. .	802	. .	745	. .	42.2	301 10 9.4	. .	− 1 42.9	352 14 47.7	+ 0.1
33	186 54	3.8	4.3	5.1	4.4	25	. .	960	. .	832	. .	42.2	186 57 52.1	862	+ 7.7	44 8 21.4	− 1.4
34	10 20	2.0	1.0	2.0	3.0	25	770	670	. .	583	570	42.2	10 23 58.9	. .	+ 11.5	61 30 31.6	− 0.3
35	39 12	2.1	0.7	1.1	3.3	21	648	610	. .	472	475	42.2	39 17 1.4	. .	+ 51.1	90 24 13.7	− 0.3
36	72 56	3.8	3.0	3.6	5.3	27	565	486	. .	446	380	42.2	72 59 28.5	869	+ 3 22.2	124 9 11.9	+ 3.2
37	305 28	2.1	0.8	3.0	3.5	28	335	354	312	341	304	42.2	305 31 17.1	878	− 1 27.7	356 36 10.6	+ 1.8
38	15 18	2.9	0.9	3.0	4.3	25	. .	. .	515	443	442	42.2	15 22 0.1	882	+ 17.2	66 28 38.5	− 0.1
39																	
40	294 8	1.7	0.7	3.6	4.3	23	. .	761	. .	756	. .	42.2	294 12 26.8	. .	− 2 19.1	345 16 28.9	+ 1.3
41	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . .	891			
42																	
43	307 46	2.7	2.0	5.1	4.5	26	. .	638	686	640	. .	42.2	307 49 41.7	901	− 1 21.1	358 54 41.8	− 0.2
44	42 52	2.5	26.7	26.4	26.0	24	500	422	. .	. .	. .	15.4	42 55 55.8	. .	+ 53.2	94 3 10.2	− 6.0
45	42 20	10 6.7	6.8	7.2	9.2	22	. .	. .	. .	911	020	15.4	42 24 6.7	490	+ 52.2	93 31 20.2	− 5.9
46	310 14	4.6	4.8	6.7	7.3	22	490	509	. .	550	525	15.4	310 18 15.9	. .	− 1 7.4	1 23 29.7	− 2.7
47																	
48	330 6	10 0.7	28.6	29.4	29.6	23	. .	. .	. .	019	941	14.0	330 10 14.0	415	− 32.3	21 16 2.9	− 3.0
49	33 16	0.7	28.3	26.6	27.2	25	. .	618	. .	523	. .	14.0	33 19 35.4	. .	+ 37.0	84 26 33.6	− 1.3

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
22	30.363	25.2	72.0

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.

DATE.	Number.	OBJECT.	Observer.	Weight.	I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Mar. 16	1	φ Geminorum . .	H.	4	56.5	58.3	1.2	8.0	10.2	12.6	19.4	21.2	23.9	45 10.14	+ 0.06	+15.54	+15.48	7 45 25.68	− 0.10
	2	λ Ursæ Minoris, S.P.	H.	4	. .	. .	. .	48.0	32.0	20.0	8.0	. .	. .	55 33.62	− 0.37	. .	+15.48	7 55 48.73	− 0.08
	3	ι Ursæ Majoris . .	H.	4	36.7	40.5	42.9	52.1	55.2	58.2	7.4	9.9	13.7	49 55.18	+ 0.07	. .	+15.49	8 50 10.74	− 0.10
	4	κ Cancri	H.	4	9.0	11.4	13.1	19.3	21.3	23.5	29.7	31.3	33.8	0 21.38	+ 0.05	+15.37	+15.49	9 0 36.92	+ 0.12
17	5	Sun I, S.	A.	.	. .	. .	6.5	8.5	10.7	12.8	14.8	18.9	20.4	49 10.69	. .	. .	. .	. . . .	. .
18	6	Sun I, N. . . .	H.	3	36.2	39.0	40.1	46.5	48.6	50.6	56.9	58.3	1.0	52 48.58	+ 0.50	. .	+16.08	23 53 5.16	. .
	7	Sun II, S. . . .	H.	3	45.4	48.1	49.7	55.7	57.7	59.7	5.7	7.3	10.0	54 57.70	+ 0.50	. .	+16.08	23 55 14.28	. .
	8	Polaris	H.	2	. .	. .	22.0	46.0	13.0	36.0	58.0	. .	. .	10 11.30	−17.12	. .	+16.10	1 10 10.28	+ 0.53
	9	Venus I, N. . .	H.	1	55.4	57.7	59.5	5.8	7.9	10.1	16.5	18.1	20.8	23 7.98	+ 0.39	. .	+16.12	2 23 24.49	− 0.55
	10	Venus S. . . .	H.	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	11	δ Geminorum . .	H.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	12	α^2 Geminorum . .	H.	.	40.1	43.3	45.2	52.2	54.6	57.1	4.3	6.1	8.8	25 54.63	+ 0.25	+16.20	+16.20	7 26 11.08	+ 0.20
	13	β Geminorum . .	H.	.	44.3	47.4	49.1	56.1	58.3	0.7	7.6	9.4	12.2	36 58.34	+ 0.28	+16.24	+16.20	+7 37 14.84	− 0.02
	14	φ Geminorum . .	H.	.	55.4	58.3	0.2	6.7	9.3	11.5	18.4	20.2	23.0	45 9.22	+ 0.30	+16.19	+16.21	7 45 25.73	− 0.02
	15	λ Ursæ Minoris, S.P.	H.	5	. .	. .	40.0	58.0	9.0	20.0	37.0	. .	. .	55 8.80	+23.28	. .	+16.21	19 55 48.29	− 2.23
	16	κ Cephei, S. P. . .	H.	5	0.4	12.1	19.0	46.6	56.1	5.2	33.4	40.5	52.3	12 56.18	+ 2.46	. .	+16.22	20 13 14.86	+ 0.07
	17	ε Hydræ	H.	.	19.1	21.5	23.2	29.3	31.3	33.4	39.7	41.2	43.7	39 31.38	+ 0.46	+16.25	+16.22	8 39 48.06	− 0.05
	18	ι Ursæ Majoris . .	H.	4	36.0	39.9	42.1	51.3	54.3	57.3	6.7	9.1	13.0	49 54.41	+ 0.04	. .	+16.23	8 50 10.68	+ 0.07
	19	κ Cancri . . .	H.	.	7.8	10.3	11.8	18.1	20.1	22.2	28.5	30.0	32.6	0 20.16	− 0.42	+16.20	+16.23	9 0 36.81	+ 0.03
	20		H.	.															
	21	β Cephei, S. P. . .	H.	.	1.1	8.3	13.0	31.1	37.1	43.0	0.7	5.1	12.8	26 36.91	+ 1.75	. .	+16.23	9 26 54.89	− 0.11
	22	Anonymous . .	H.	.	. .	33.0	35.1	37.5	39.6	41.9	46.3	48.1	50.9	39 37.40	+ 0.32	. .	+16.24	9 39 53.96	. .
	23	79 Draconis, S. P. .	H.	.	11.2	19.9	24.4	45.5	52.5	0.1	20.5	25.6	35.4	50 52.79	+ 1.98	. .	+16.24	9 50 11.01	− 0.29
	24	α Leonis	H.	.	52.4	55.1	56.6	3.0	5.1	7.0	13.3	14.9	17.5	1 4.99	+ 0.41	+16.25	+16.24	10 1 21.64	− 0.02
	25	32 Ursæ Majoris . .	H.	.	41.3	47.7	51.4	6.1	11.1	16.1	31.1	34.8	40.7	8 11.14	− 0.42	. .	+16.25	10 8 26.07	+ 0.00
	26	γ^1 Leonis	H.	.	13.1	16.0	17.4	24.0	26.1	28.3	34.9	36.5	39.1	12 26.16	+ 0.36	+16.23	+16.25	10 12 42.77	+ 0.04
	27	ρ Leonis	H.	.	22.8	25.4	27.0	33.1	35.2	37.1	43.4	45.1	47.7	25 35.20	+ 0.43	+16.23	+16.25	10 25 51.88	− 0.02
	28	l Leonis	H.	3	51.3	53.8	55.4	1.6	3.7	5.7	11.9	13.6	15.9	42 3.66	+ 0.43	+16.27	+16.26	10 42 20.35	+ 0.06
	29	Circe	H.	2	. .	. .	. .	12.1	13.5	15.6	. .	. .	. .	37 13.73	+ 0.49	. .	+16.27	11 37 30.49	. .
	30	Io	H.	1	27.3	30.5	. .	. .	40.4	. .	. .	49.2	51.4	32 39.76	+ 0.56	. .	+16.28	12 32 56.60	. .
	31	Polaris, S. P. . .	H.	2	. .	. .	22.0	0.0	35.0	14.0	48.0	. .	. .	9 35.80	+18.24	. .	+16.31	1 10 10.35	+ 0.84
19	32	Sun I, N.	E.	3	14.7	17.2	18.8	24.7	26.7	28.7	34.7	36.6	39.2	56 26.81	+ 0.40	. .	+16.50	23 56 43.71	. .
	33	Sun II, S. . . .	E.	2	. .	31.3	34.0	36.1	37.9	40.0	44.4	45.8	48.1	58 35.94	+ 0.40	. .	+16.50	23 58 52.84	. .
	34	Polaris	N.	.	. .	. .	. .	. .	. .	. .	. .	42.0	31.0	10 6.75	−11.81	. .	+16.51	1 10 11.45	. .
	35	Polaris	E.	.	. .	. .	. .	. .	. .	. .	2.0	. .	. .	10 15.00	−11.81	. .	+16.51	1 10 19.70	. .
	36	Venus I, N. . .	E.	.	25.1	27.8	29.3	35.6	37.7	39.8	46.1	47.9	50.4	27 37.74	+ 0.31	. .	+16.52	2 27 54.57	+ 0.55
	37	Venus, S. . . .	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	38	α Ceti	E.	.	53.3	55.7	57.2	3.3	5.4	7.5	13.6	15.2	17.7	55 5.43	+ 0.35	+16.45	+16.54	2 55 22.32	+ 0.11
	39	Uranus . . .	E.	2	54.1	57.0	58.6	5.2	7.4	9.6	16.8	18.3	20.1	38 7.46	+ 0.26	. .	+16.60	6 38 24.32	. .
	40	ε Canis Majoris .	E.	.	55.7	58.6	0.5	7.6	9.8	12.0	19.2	21.0	24.0	53 9.82	+ 0.36	+16.72	+16.60	6 53 26.78	− 0.14
	41	δ Geminorum . .	E.	.	. .	. .	53.6	56.0	58.0	0.1	2.3	. .	. .	11 58.00	+ 0.25	+16.61	+16.61	7 12 14.86	− 0.03
	42	λ Ursæ Min., S. P. .	E.	1	. .	. .	51.0	16.0	25.0	33.0	48.0	. .	. .	55 22.75	+10.49	. .	+16.62	19 55 49.86	− 1.55
	43	A Præsepe . . .	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	44	F Præsepe . . .	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	45	ι Ursæ Majoris . .	E.	.	35.5	39.5	40.7	50.7	54.1	57.2	6.4	8.7	12.3	49 53.90	+ 0.14	. .	+16.63	8 50 10.67	+ 0.08
	46	κ Cancri	E.	1	7.4	10.1	11.5	18.1	20.1	22.1	28.4	29.9	32.5	0 20.01	+ 0.26	+16.50	+16.63	9 0 36.90	+ 0.13
	47	ε Leonis, (R.) . .	E.	.	52.6	55.6	57.2	3.8	6.0	8.1	15.0	16.6	19.6	38 6.06	− 0.30	. .	+16.64	9 38 22.30	− 0.14
	48	79 Draconis, S. P. .	E.	.	11.3	20.5	25.4	47.0	53.7	1.0	21.2	26.9	36.4	50 53.76	+ 0.91	. .	+16.64	21 51 11.31	− 0.03
	49	α Leonis	E.	.	52.1	54.9	56.4	2.6	4.7	6.7	13.1	14.8	17.2	1 4.72	+ 0.25	+16.67	+16.65	10 1 21.62	− 0.03

19.20. The microscopes read as in line 19, but in adjusting illumination of microscope III the readings were accidentally changed to those of line 20, the circle being clamped all the time. The nadir, of course, changed by the same amount.

43.48. Wire A used.

48. Bisections at D_3, C_3, B_1.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	11 42	2.4	0.2	29.4	29.0	18	860	950	. .	830	828	14.0	11 47 16.0	415	+ 11.7	62 53 48.9	− 2.2
2	307 46	27.5	26.4	26.0	26.8	26	352	330	337	320	. .	14.0	307 49 25.0	415	− 1 12.4	358 54 33.8	− 2.9
3	350 16	29.6	28.0	27.6	27.2	22	708	698	. .	528	566	14.0	350 20 21.1	425	− 9.6	41 26 32.7	− 2.3
4	27 36	3.2	1.0	29.4	0.5	18	060	062	. .	908	893	14.0	27 41 28.5	. .	+ 29.6	78 48 19.3	− 1.6
5	40 6	3.5	7.5	0.8	29.6	21	. .	188	. .	. .	. .	15.0	40 10 39.1	306	+ 46.3	91 17 46.6	− 5.7
6	39 12	10 6.1	4.6	0.5	3.5	28	428	372	. .	. .	. .	15.5	39 14 48.6	. .	+ 47.1	90 21 56.9	− 5.6
7	39 44	10 6.0	4.5	1.8	2.8	27	. .	. .	. .	728	670	15.5	39 46 58.2	522	+ 48.0	90 54 7.4	− 5.7
8	310 14	2.9	3.7	2.6	3.0	22	670	575	676	640	680	15.5	310 18 16.9	510	− 1 7.7	1 23 30.4	− 4.3
9	23 32	10 10.5	9.5	7.3	6.8	28	191	231	. .	. .	. .	15.5	23 34 46.6	. .	+ 25.0	74 41 32.8	− 3.2
10	23 32	10 10.5	9.5	7.3	6.8	27	. .	. .	. .	225	068	15.5	23 35 2.3	492	+ 25.0	74 41 48.5	− 3.2
11	16 36	6.2	3.4	1.4	1.5	23	310	349	. .	244	249	15.5	16 40 7.6	580	+ 17.5	67 46 46.3	− 1.3
12	6 38	10 4.0	3.3	2.1	1.4	19	491	511	. .	435	390	15.5	6 43 6.1	. .	+ 6.9	57 49 34.2	− 1.2
13	10 28	10 3.9	2.5	1.4	1.1	19	920	890	. .	750	795	15.5	10 33 0.7	. .	+ 10.9	61 39 32.8	− 1.5
14	11 42	10 7.6	7.3	6.0	5.7	18	560	650	. .	550	550	15.5	11 47 15.5	595	+ 12.2	62 53 48.9	− 2.1
15	307 46	2.5	2.6	2.4	2.2	25	880	810	785	775	810	15.5	307 49 28.7	. .	− 1 15.5	358 54 34.4	− 1.9
16	296 10	6.0	6.1	6.5	6.7	22	630	705	. .	640	490	15.5	296 14 11.6	605	− 1 58.8	347 18 34.0	− 0.5
17	31 54	6.6	5.9	2.9	3.1	19	090	120	. .	040	980	15.5	31 59 10.0	610	+ 36.7	83 6 7.9	− 0.9
18	350 16	9.7	8.8	8.2	6.5	22	080	010	. .	970	945	15.5	350 20 21.9	. .	− 10.0	41 26 33.1	− 1.5
19	27 36	10 2.1	1.5	28.5	29.6	18	320	330	. .	180	220	15.5	27 41 26.4	. .	+ 30.9	78 48 18.5	− 2.4
20		26.5	24.1	23.5	22.4												
21	288 52	10 0.2	29.2	0.0	29.0	26	430	465	. .	330	270	11.0	288 55 17.3	630	− 2 51.0	339 58 47.5	+ 2.3
22	14 36	27.5	26.3	26.2	25.2	31	. .	. .	. .	160	168	10.9	14 38 7.8	. .	+ 15.4	65 44 44.4	
23	291 56	23.8	23.0	24.5	23.5	21	. .	500	. .	390	. .	10.9	292 0 38.7	. .	− 2 25.6	343 4 34.3	+ 0.2
24	26 12	10 2.0	0.0	29.4	29.0	21	130	110	. .	028	915	10.9	26 16 39.6	. .	+ 29.3	77 23 30.1	− 0.2
25	333 4	27.5	26.0	27.1	25.5	23	. .	028	. .	970	. .	10.9	333 8 14.0	. .	− 30.0	24 14 5.2	− 0.9
26	18 18	9 25.5	23.5	22.6	22.0	20	240	285	. .	180	140	10.9	18 22 59.1	640	+ 19.7	69 29 40.0	− 0.8
27	28 50	10 3.0	0.3	29.9	0.4	22	960	900	. .	730	790	10.9	28 54 11.3	. .	+ 32.8	80 1 5.3	− 0.8
28	27 34	28.6	26.1	25.0	24.8	21	160	050	. .	970	020	10.7	27 38 43.3	650	+ 31.2	78 45 35.7	− 1.0
29	37 50	10 4.1	1.4	0.5	0.4	16	129	. .	. .	. .	135	10.7	37 55 53.0	660	+ 46.4	89 3 0.6	− 3.8
30	48 0	1.5	0.0	29.3	28.9	19	950	990	. .	. .	200	10.7	48 4 54.8	660	+ 1 6.3	99 12 22.3	− 3.3
31	307 26	9 25.6	25.5	26.5	25.8	18	770	790	725	692	645	10.5	307 31 18.5	670	− 1 17.6	358 36 22.1	− 3.1
32	38 48	9 27.8	26.7	23.9	25.6	28	. .	638	. .	. .	. .	12.5	38 50 49.4	626	+ 47.6	89 57 58.2	− 5.6
33	39 20	10 1.4	28.9	28.8	29.3	25	. .	. .	. .	855	237	12.5	39 23 24.7	626	+ 48.5	90 30 34.4	− 5.6
34																	
35	310 14	9 26.4	26.2	25.4	24.9	22	. .	102	. .	327	. .	12.5	310 18 27.8	. .	− 1 9.2	1 23 39.8	+ 4.9
36	23 6	10 0.2	2.2	27.0	27.2	28	410	. .	. .	. .	392	12.5	23 8 49.8	584	+ 25.0	74 15 36.0	− 3.2
37	23 6	10 0.2	2.2	27.0	27.2	27	. .	400	. .	450	. .	12.5	23 9 4.7	. .	+ 25.0	74 15 50.9	− 3.2
38	35 16	26.2	24.8	22.3	21.7	28	. .	. .	. .	268	310	12.5	35 18 55.7	. .	+ 41.5	86 25 58.4	− 1.4
39	15 18	10 0.3	0.8	29.5	27.6	26	. .	. .	. .	132	128	12.0	15 21 22.7	. .	+ 16.3	66 28 0.2	− 0.1
40	67 36	10 2.2	1.0	0.2	29.0	26	340	510	. .	262	298	12.0	67 39 18.8	645	+ 2 23.4	118 48 3.4	− 1.4
41	16 36	9 24.3	22.8	21.0	20.2	23	. .	. .	. .	550	656	12.0	16 40 8.7	. .	+ 17.8	67 46 47.7	+ 0.1
42	307 44	9 23.8	23.2	23.8	23.7	18	002	995	850	995	928	12.0	307 49 34.0	. .	− 1 16.6	358 54 38.6	+ 2.4
43	18 34	10 8.2	6.8	6.0	5.0	17	408	. .	. .	. .	. .	11.9	18 42 4.8	. .	+ 20.2	69 48 46.2	+ 14.9
44	18 34	10 8.2	6.8	6.0	5.0	19	342	318	. .	360	. 8	11.9	18 39 0.7	. .	+ 20.2	69 45 42.0	+ 15.2
45	350 16	9 29.3	28.8	28.2	26.0	22	385	459	. .	350	380	11.9	350 20 22.5	. .	− 19.1	41 26 33.6	− 0.9
46	27 38	10 6.6	4.4	3.2	2.2	25	660	512	. .	430	435	11.9	27 41 28.4	. .	+ 31.3	78 48 20.9	+ 0.1
47	165 26	7.2	6.6	5.7	4.6	26	270	145	. .	172	022	11.9	165 29 16.3	. .	− 15.5	65 37 20.4	+ 1.7
48	291 56	10 0.4	29.5	0.8	28.8	23	. .	185	253	153	. .	11.9	292 0 41.8	680	− 2 27.1	343 4 35.9	+ 2.0
49	26 14	10 10.0	8.2	8.0	7.8	28	. .	. .	. .	. .	350	11.9	26 16 39.4	. .	+ 29.6	77 23 30.2	− 0.2

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
2	29.926	65.7	70.5
11	30.210	51.0	64.5

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	′ ″

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellaneous Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Mar. 19	1	Anonymous	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	2	λ Draconis, (R.)	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	3	θ Virginis	E.	.	39.1	42.0	43.5	49.5	51.5	53.4	59.5	1.2	3.9	2 51.50	+ 0.21	+16.79	+16.69	13 3 8.40	− 0.13
	4	Polaris, S. P.	E.	.	. .	. .	. .	12.0	50.0	31.0	. .	. .	. .	9 51.00	+ 5.00	. .	+16.69	1 10 12.68	+ 3.54
23	5	Sun I, N.	A.	.	47.5	50.2	51.8	57.7	0.1	2.0	8.0	9.5	12.2	10 59.89	− 0.10	. .	+17.53	0 11 17.32	. .
	6	Sun II, S.	A.	.	. .	. .	. .	8.8	10.8	12.9	16.9	18.6	21.9	13 8.79	− 0.10	. .	+17.53	0 13 26.22	. .
	7	λ Ursæ Min., S. P.	H.	3	. .	. .	17.0	25.0	45.0	55.0	10.0	. .	. .	55 42.00	− 4.06	. .	+17.59	19 55 55.93	+ 0.39
	8	ε Hydræ	H.	4	18.1	20.8	22.0	28.4	30.4	32.5	38.7	40.3	42.9	39 30.48	− 0.09	+17.62	+17.60	8 39 47.99	− 0.02
	9	ι Ursæ Majoris	H.	4	34.4	38.3	40.7	49.9	53.1	56.1	5.1	7.4	11.5	49 52.94	− 0.02	. .	+17.60	8 50 10.52	+ 0.01
	10	κ Cancri	H.	4	6.7	9.4	11.0	17.2	19.3	21.4	27.4	29.0	31.5	0 19.20	− 0.08	+17.60	+17.60	9 0 36.72	0.00
	11	α Hydræ	H.	4	37.2	39.9	41.4	47.8	50.0	52.0	58.0	59.6	2.2	20 49.79	− 0.12	+17.57	+17.60	9 21 7.27	+ 0.03
24	12	ρ Leonis	A.	4	22.5	25.1	26.7	32.9	34.9	37.1	43.3	44.8	47.4	25 34.97	− 0.13	+17.97	+17.95	10 25 52.79	− 0.06
	13	226 Cephei, S. P.	A.	3	55.1	45.6	39.2	52.2	44.2	. .	. .	. .	. .	29 36.31	− 0.56	. .	+17.95	22 29 53.70	− 0.56
	14	l Leonis	A.	3	50.1	52.6	54.3	0.4	2.6	4.7	10.9	12.5	15.2	42 2.59	− 0.13	+17.88	+17.96	10 42 20.42	+ 0.15
	15	Asia	A.	.	4.0	. .	6.7	12.3	. .	. .	. .	. .	28.7	57 16.37	− 0.16	. .	+17.96	10 57 34.17	
	16	o Cephei, S. P.	A.	5	25.5	19.0	14.8	59.2	53.4	48.0	32.1	28.3	21.5	12 53.53	− 0.38	. .	+17.96	23 13 11.11	− 0.17
	17	τ Leonis	A.	.	. .	. .	48.4	50.5	52.5	54.6	56.6	. .	. .	20 52.52	− 0.15	+17.98	+17.96	11 21 10.33	− 0.01
	18	Virginia	A.	.	. .	. .	37.5	. .	. .	. .	49.6	. .	. .	29 41.50	− 0.15	. .	+17.96	11 29 59.31	
	19	β Leonis	A.	4	50.3	53.0	54.6	1.0	3.0	5.1	11.4	12.9	15.4	42 2.97	− 0.12	+18.02	+17.97	11 42 20.82	− 0.04
	20	γ Ursæ Majoris	A.	4	15.0	19.5	22.0	32.3	36.0	39.5	50.2	52.8	57.1	46 36.05	+ 0.04	. .	+17.97	11 46 54.06	− 0.10
30	21	α Hydræ, (R.)	N.	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	22	32 Ursæ Majoris	N.	.	. .	. .	56.8	1.9	6.6	11.8	16.7	. .	. .	8 6.76	+ 0.10	. .	+19.78	10 8 26.54	− 0.09
	23	ρ Leonis	N.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	24	226 Cephei, S. P.	N.	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	25	α Ursæ Majoris	N.	3	. .	6.6	11.1	15.6	19.7	24.4	33.1	36.4	42.0	55 15.48	+ 0.04	. .	+19.79	10 55 35.31	+ 0.05
	26	δ Leonis	N.	3	33.8	36.5	38.1	44.7	47.0	49.1	55.7	57.3	0.1	6 46.92	− 0.31	+19.80	+19.79	11 7 6.40	− 0.03
	27	δ Crateris	N.	3	14.3	17.0	18.5	24.7	26.8	29.0	35.2	36.9	39.3	12 26.86	− 0.50	+19.78	+19.79	11 12 46.15	+ 0.01
	28	λ Draconis, (R.)	N.	3	. .	. .	2.3	8.4	14.3	20.3	26.4	. .	. .	23 14.34	+ 0.45	. .	+19.79	11 23 34.58	+ 0.10
	29	υ Leonis	N.	2	41.2	44.0	45.2	51.4	53.5	55.5	1.7	3.1	5.7	29 53.48	− 0.42	+19.83	+19.79	11 30 12.85	− 0.05
	30	γ Ursæ Majoris, (R.)	N.	2	13.7	17.9	20.2	30.9	34.5	37.8	48.3	51.1	55.4	46 34.42	+ 0.09	. .	+19.80	11 46 54.31	+ 0.10
	31	o Virginis	N.	3	. .	. .	6.9	8.9	11.0	13.1	15.2	. .	. .	58 11.02	− 0.37	+19.85	+19.80	11 58 30.45	− 0.11
	32	4 (H) Draconis	N.	4	. .	. .	21.9	32.4	42.3	52.3	2.5	. .	. .	5 42.28	+ 0.62	. .	+19.80	12 6 2.70	− 0.14
	33	Io	N.	2	56.6	59.6	1.1	7.2	9.1	11.2	17.3	19.0	21.7	27 9.20	− 0.46	. .	+19.80	12 23 8.54	. .
	34	Hestia	N.	1	8.1	. .	17.3	19.1	. .	26.0	29.5	30.7	33.6	39 21.21	− 0.44	. .	+19.81	12 39 40.58	. .
	35	α Canum Venat.	N.	3	17.1	20.3	22.5	30.5	33.2	35.5	43.4	45.3	48.7	49 32.94	− 0.21	+19.68	+19.81	12 49 52.54	+ 0.14
	36	Polaris, S. P.	N.	3	. .	. .	45.5	19.0	55.0	35.0	. .	. .	. .	9 56.65	− 8.22	. .	+19.82	1 10 8.25	+ 0.92
	37	α Virginis	N.	3	44.4	46.9	48.4	54.7	56.7	58.8	5.2	6.7	9.3	17 56.79	− 0.48	+19.85	+19.82	13 18 16.13	− 0.02
31	38	Sun I, S.	A.	2	. .	. .	. .	. .	5.1	7.1	11.1	12.7	15.1	40 2.97	− 0.31	. .	+19.96	0 40 22.62	. .
	39	Sun II, N.	A.	2	59.6	2.1	3.5	9.7	12.0	14.0	20.1	21.5	24.3	42 11.87	− 0.31	. .	+19.96	0 42 31.52	. .
	40	Polaris	A.	2	12.0	0.0	5.0	. .	. .	. .	14.5	16.0	1.5	9 38.28	+ 9.24	. .	+19.97	1 10 7.49	+ 0.20
	41		A.	2	. .	. .	52.0	16.0	38.0	1.0	24.0	. .	. .						
	42	α Persei	A.	5	15.1	19.0	20.5	30.8	34.0	37.1	46.4	48.8	52.9	14 33.84	− 0.02	. .	+19.99	3 14 53.81	− 0.05
	43	Venus I, S.	A.	3	9.3	12.0	13.7	20.1	22.4	24.4	31.1	32.7	35.5	22 22.36	− 0.23	. .	+19.99	3 22 42.12	+ 0.61
	44	Venus N.	A.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	45	Moon I, N.	A.	.	5.5	7.3	11.6	13.8	16.2	18.3	20.4	25.1	26.7	13 16.10	− 0.24	. .	+20.04	7 13 35.90	+71.16
	46	Anonymous	A.	.	. .	. .	7.1	9.3	11.6	13.7	16.0	. .	. .	19 11.54	− 0.46	. .	+20.04	7 19 31.12	+ 4.69
	47	α^1 Geminorum	A.	5	36.1	39.2	41.0	. .	. .	. .	0.3	2.1	5.1	26 50.63	− 0.16	. .	+20.04	7 26 10.51	− 0.10
	48	α^2 Geminorum	A.	5	. .	. .	46.1	48.5	51.0	53.5	55.8	. .	. .	26 50.98	− 0.16	+19.99	+20.04	7 26 10.86	+ 0.25
	49	α Canis Minoris	A.	5	52.0	54.4	56.0	2.1	4.1	6.1	12.3	14.0	16.6	32 4.18	− 0.31	+20.11	+20.04	7 32 23.91	− 0.09

1.4.15.18. Wire A used.
16. Seems ten revs. wrong.
33.34. Wire A used.
34. R. A. observed over wires B_1, C_1, C_5, and D.
38. R. A. observed over wires C_4, C_5, and D.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	37 56	10.3	10.6	10.0	8.2	24	850	. .	. .	. .	. .	11.9	37 57 5.6	. .	+ 46.8	89 4 13.6	
2	. .	10 9.0	11.5	10.9	7.3	25	957	938	. .	792	672	11.8	211 9 16.1	. .	+ 36.3	20 56 28.8	− 1.8
3	43 40	11.4	7.5	7.5	9.7	27	. .	890	. .	740	. .	11.8	43 42 48.2	. .	+ 57.4	94 50 6.8	− 1.0
4	307 26	10 1.2	0.3	2.2	0.8	28	430	410	380	. .	. .	11.8	307 31 20.9	700	− 1 18.2	358 36 23.9	− 1.1
5																	
6	37 46	9 18.0	14.0	16.0	16.0	22	. .	. .	. .	192	135	12.0	37 48 37.1	470	+ 44.2	88 55 42.5	− 5.4
7	307 46	9 19.5	17.9	20.0	20.3	26	530	582	648	668	620	11.0	307 49 25.1	480	− 1 13.5	358 54 32.8	− 2.6
8	31 54	?9 20.6	18.9	18.4	18.3	19	630	708	. .	572	545	11.0	31 59 12.6	485	+ 35.7	83 6 9.5	+ 0.8
9	350 16	?9 23.2	20.3	21.9	21.6	22	975	895	. .	710	704	11.0	350 20 21.4	. .	− 9.7	41 26 32.9	− 1.0
10	27 36	?9 24.2	21.4	21.8	22.4	18	388	422	. .	277	332	11.0	27 41 28.4	490	+ 30.0	78 48 19.6	− 1.1
11	46 54	9 25.0	22.5	22.1	23.2	23	430	430	. .	285	300	11.0	46 58 11.1	490	+ 1 1.2	98 5 33.5	+ 1.7
12	28 50	?10 9.5	7.1	6.8	8.6	23?	476	470	. .	310	352	11.1	28 54 11.2	. .	+ 32.4	80 1 4.8	− 1.1
13																	
14	27 34	10 8.0	5.3	5.0	7.0	20	549	523	. .	421	361	11.1	27 38 42.4	602	+ 30.8	78 45 34.4	− 2.0
15	37 16	9 28.7	26.6	26.9	27.4	28	. .	. .	. .	033	023	11.1	37 21 28.2	. .	+ 44.9	88 28 34.3	− 3.1
16	286 16	2.5	1.1	2.9	4.0	22	550	586	. .	563	440	11.1	286 22 47.3	618	− 3 18.6	67 25 49.9	
17																	
18	35 22	1.2	1.0	28.0	0.4	28	730	730	. .	. .	. .	11.1	35 27 17.0	. .	+ 42.0	86 34 20.2	− 2.1
19	23 30	8.1	5.5	5.5	6.5	20	349	326	. .	209	213	11.1	23 34 45.3	621	+ 25.8	74 41 32.3	− 0.7
20																	
21	132 58	2.3	0.5	0.4	29.6	24	. .	. .	180	145	. .	11.7	133 1 51.9	634	− 1 3.4	98 5 32.7	+ 0.5
22	333 4	5.7	2.9	5.5	6.3	22	685	692	. .	640	630	11.7	333 8 10.7	. .	− 30.0	24 14 1.9	− 1.2
23	28 50	1.1	27.8	29.3	0.8	23	. .	050	. .	950	. .	11.7	28 54 10.9	. .	+ 32.8	80 1 4.9	− 0.7
24	294 24	9 26.5	24.3	27.9	29.1	12	005	102	087	. .	. .	11.7	294 28 28.1	643	− 2 9.7	345 32 39.6	+ 1.0
25	336 22	10 0.5	26.8	29.7	29.9	22	. .	. .	680	. .	. .	11.8	336 26 16.3	. .	− 25.9	27 32 11.6	− 2.2
26	17 34	10 5.8	2.6	3.6	4.9	20	875	880	. .	768	761	11.8	17 38 39.9	. .	+ 18.9	68 45 20.0	− 1.0
27	52 52	9.2	7.0	6.6	7.9	21	645	620	. .	485	470	11.8	52 56 24.9	650	+ 1 18.6	104 4 4.7	− 1.3
28	211 6	0.9	1.9	3.7	1.9	26	180	165	. .	110	140	11.8	211 9 20.3	. .	+ 35.9	19 56 25.0	− 2.3
29	38 56	6.0	2.7	3.7	5.1	28	. .	. .	410	. .	. .	11.9	38 58 43.6	. .	+ 48.1	90 5 52.9	− 0.6
30	195 28	0.9	1.2	3.0	0.7	24	. .	. .	550	525	382	11.9	195 31 45.4	658	+ 16.6	35 34 19.2	− 0.8
31	29 22	5.7	2.3	3.1	5.0	26	. .	. .	405	. .	. .	12.0	29 25 14.8	. .	+ 33.6	80 32 9.6	− 1.6
32	320 30	2.9	0.2	3.9	4.7	25	770	750	. .	710	739	12.0	320 33 26.4	. .	− 49.0	11 38 58.6	− 3.1
33	46 20	2.7	0.4	1.7	3.0	22	. .	735	. .	650	. .	12.0	46 26 47.7	660	+ 1 2.6	97 34 11.5	− 3.3
34	42 26	5.5	2.1	3.0	4.5	21	. .	736	. .	810	. .	12.1	42 33 0.0	. .	+ 54.7	93 40 15.9	− 3.1
35	359 48	2.3	29.5	1.2	1.6	24	344	311	. .	250	216	12.1	359 51 50.7	. .	− 0.1	50 58 11.8	+ 0.2
36	397 28	10.0	8.6	10.7	10.7	25	. .	905	890	905	. .	12.2	307 31 16.7	. .	+ 1 17.5	358 36 20.4	− 1.0
37	49 18	3.1	0.2	1.2	1.9	28	158	116	. .	002	996	12.2	49 20 51.9	663	+ 1 9.3	100 28 22.4	− 0.8
38	34 38	10 4.9	1.1	1.0	4.0	26	. .	. .	163	258	. .	11.2	34 41 18.1	. .	+ 39.9	85 48 19.2	− 5.0
39	34 6	10 4.9	0.7	2.3	5.9	26	. .	. .	. .	410	243	11.2	34 9 16.1	525	+ 39.1	85 16 16.4	− 5.0
40	310 14	9 17.9	?15.1	17.2	18.5	23	. .	039	. .	990	040	11.2	310 18 23.6	450	− 1 6.8	1 23 38.0	− 0.7
41		9 15.8	?14.3	16.2	15.7												
42	349 26	10 3.4	0.7	3.0	3.1	21	440	450	. .	446	450	11.1	349 30 30.7	. .	− 10.4	40 36 41.5	− 1.2
43	18 26	10 1.5	29.5	0.0	0.7	28	800	730	. .	. .	. .	11.1	18 28 42.2	418	+ 18.8	69 35 22.2	− 2.8
44	18 26	10 1.5	29.5	0.0	0.7	29	. .	. .	. .	662	750	11.1	18 28 26.6	. .	+ 18.8	69 35 6.6	− 2.8
45	20 22	10 5.3	2.0	1.9	3.7	22	411	265	161	090	156	10.0	20 26 17.6	458	+ 21.2	71 33 0.0	
46																	
47																	
48																	
49	33 16	4.1	2.0	1.0	2.1	25	148	182	. .	099	955	10.0	33 19 34.6	468	+ 37.4	84 26 33.2	− 1.6

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
8	29.774	55.4	66.0
21	30.144	43.3	74.0

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	′ ″
45	− 20 29.1	+ 16 10.4

DATE.	Number.		OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
1868.															m. s.	s.	s.	s.	h. m. s.	s.
Mar. 31	1	λ	Ursæ Minoris, S.P.	A.	4	..	..	27.0	41.0	54.0	6.5	18.5	..	..	55 53.00	−12.49	..	+20.04	19 55 0.55	− 3.43
	2		Io	A.	4	9.0	12.1	13.6	19.7	22.0	24.2	30.5	32.0	34.2	22 21.92	− 0.37	..	+20.09	12 22 41.64	..
	3		Bellona . . .	A.	4	7.7	10.6	12.1	18.1	20.2	22.2	28.6	29.9	32.3	45 20.19	− 0.30	..	+20.10	12 45 39.99	..
	4		Anonymous . .	A.	.	57.1	59.8	1.2	7.5	9.7	11.7	17.7	19.2	22.2	46 9.57	− 0.30	..	+20.10	12 46 29.37	..
	5		Nysa	A.	4	29.7	32.4	33.9	39.9	41.7	44.0	49.8	51.5	54.1	1 41.89	− 0.34	..	+20.10	13 2 1.65	..
	6		Polaris, S. P. . .	A.	2	..	..	46.0	20.5	58.0	32.0	11.5	..	..	9 57.26	− 9.80	..	+20.10	1 10 7.56	− 0.34
	7	α	Virginis . . .	A.	2	44.0	46.5	48.2	54.4	56.6	58.7	4.8	6.3	8.9	17 56.49	− 0.39	+20.07	+20.10	13 18 16.20	+ 0.04
Apr. 1	8		Sun I	H.	.	27.9	30.1	31.7	37.9	40.1	42.0	..	..	..	43 39.98	− 0.38	..	+20.12	1 43 59.72	..
	9		Sun II, S. . . .	H.	.	36.6	38.9	40.6	44.8	..	53.0	57.0	58.6	1.2	45 48.84	− 0.38	..	+20.12	1 46 8.58	..
	10	α	Persei	H.	.	15.0	18.6	20.2	30.5	33.5	36.7	46.2	48.7	52.6	14 33.56	− 0.06	..	+20.14	3 14 53.64	− 0.21
	11	λ	Ursæ Minoris, S.P.	H.	.	38.0	24.0	5.0	..	..	39.0	29.0	..	..	55 55.12	−10.29	..	+20.18	19 56 5.01	+ 0.08
	12		Moon I, N. . .	H.	.	52.8	54.3	58.9	1.1	3.4	5.5	7.7	11.8	13.7	15 3.24	− 0.23	..	+20.19	8 15 23.20	+70.83
	13	ε	Hydræ	H.	.	15.6	18.2	19.7	26.0	28.0	30.0	36.2	37.6	40.2	39 27.94	− 0.27	+20.21	+20.19	8 39 47.86	− 0.02
	14	ι	Ursæ Majoris . .	H.	.	31.8	35.5	37.9	47.2	50.2	53.1	2.4	4.7	8.7	49 50.17	− 0.06	..	+20.19	8 50 10.30	− 0.01
	15	κ	Cancri	H.	.	..	12.6	14.5	16.6	18.7	20.8	25.1	26.5	29.1	0 16.66	− 0.25	+20.20	+20.19	9 0 36.60	− 0.01
	16	α	Cephei, S. P. . .	H.	.	31.4	26.1	22.9	9.5	5.1	0.7	48.0	44.8	39.2	15 5.30	− 0.62	..	+20.20	21 15 24.88	− 0.05
	17	α	Hydræ	H.	.	35.0	37.7	39.2	45.2	47.3	49.3	55.3	57.3	59.6	20 47.34	− 0.33	+20.11	+20.20	9 21 7.21	+ 0.09
	18	ρ	Leonis	H.	.	20.3	22.9	24.4	30.8	32.7	34.9	41.0	42.6	45.3	25 32.77	− 0.26	+20.24	+20.21	10 25 52.72	− 0.07
	19	l	Leonis	H.	.	47.9	50.5	52.0	58.2	0.2	2.3	8.6	10.3	12.8	42 0.31	− 0.26	+20.24	+20.21	10 42 20.26	+ 0.04
	20	α	Ursæ Majoris . .	H.	.	48.2	53.9	57.1	10.3	14.7	19.1	32.3	35.8	41.2	55 14.73	+ 0.09	..	+20.21	10 55 35.03	− 0.19
3	21		Presæpe . . .	A.	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	22	ε	Hydræ	A.	4	15.1	17.6	19.2	25.5	27.4	29.5	35.6	37.2	39.7	39 27.42	− 0.28	+20.71	+20.71	8 39 47.85	0.00
	23	σ²	Ursæ Majoris .	A.	4	52.4	59.3	3.2	19.2	24.8	30.1	46.5	50.4	57.1	58 24.78	+ 0.05	..	+20.71	8 58 45.54	− 0.05
	24	α	Cephei, S. P. . .	A.	4	30.9	25.7	52.5	9.3	5.0	0.3	47.4	44.0	38.6	15 4.86	− 0.42	..	+20.71	21 15 25.15	+ 0.10
	25	α	Hydræ	A.	3	34.4	37.0	38.6	44.5	46.6	48.7	55.0	56.5	59.1	20 46.71	− 0.33	+20.71	+20.71	9 20 7.09	0.00
	26	ζ	Pegasi	N.	2.1	21.2	23.8	25.3	..	33.6	..	41.9	43.5	46.2	34 33.64	− 0.21	+20.65	+20.72	22 34 52.15	+ 0.11
	27	α	Pegasi	N.	3	37.4	39.9	41.5	47.9	50.0	52.1	58.4	0.0	2.5	57 49.97	− 0.20	+20.75	+20.72	22 58 10.49	− 0.02
	28		Mercury, (center) .	N.	2	1.7	4.1	5.8	11.9	14.0	16.0	22.2	23.8	26.5	16 14.00	− 0.26	..	+20.72	23 16 34.46	− 0.10
4	29		Sun I, N. . . .	N.	3.2	23.7	26.5	28.0	34.1	36.1	38.1	44.3	46.0	48.4	54 36.13	− 0.22	..	+20.73	0 54 56.64	..
	30		Sun II, S. . . .	N.	.	32.8	35.5	37.0	43.1	45.2	47.2	53.4	55.1	57.6	56 45.21	− 0.22	..	+20.74	0 57 5.73	..
	31		Polaris	N.	1	..	..	..	..	..	4.0	29.0	20.0	..	9 42.40	+ 4.70	..	+20.74	1 10 7.84	+ 1.10
	32	α	Ceti	N.	3	..	..	26.1	29.1	30.1	31.2	22.1	..	38.3	55 1.53	− 0.23	+20.78	+20.74	2 55 22.04	− 0.02
	33		Venus I, S. . .	N.	3	41.7	44.4	46.0	52.5	54.8	57.0	3.7	5.3	8.1	40 54.83	− 0.18	..	+20.77	3 41 15.42	+ 0.64
	34		Venus, N. . . .	N.	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5	35	α	Aquarii . . .	N.	3	26.5	29.2	30.6	36.8	38.9	40.8	46.9	48.4	51.0	58 38.79	− 0.37	+21.22	+21.23	21 58 59.65	0.00
	36	ζ	Pegasi	N.	3	18.9	21.3	22.9	29.2	31.2	33.1	39.4	41.1	43.6	34 31.19	− 0.32	+21.26	+21.24	22 34 52.11	+ 0.02
	37		Mercury, (center) .	N.	.	55.3	58.0	59.6	5.7	7.8	10.0	16.1	17.7	20.1	24 7.81	− 0.40	..	+21.24	23 24 28.65	− 0.10
6	38		Sun I, N. . . .	N.	2	41.1	43.9	45.5	51.6	..	55.8	1.8	3.4	36.0	1 53.64	− 0.33	..	+21.25	1 2 14.56	..
	39		Sun II, S. . . .	N.	1	50.4	52.8	54.6	0.8	2.8	4.8	11.1	12.6	15.0	4 2.77	− 0.33	..	+21.25	1 4 23.69	..
	40		Venus I, S. . .	N.	2	0.3	3.0	4.6	..	..	..	22.4	24.0	26.8	50 13.52	− 0.25	..	+21.28	3 50 34.55	..
	41		Venus II, N. . .	N.	2	..	..	10.0	12.1	14.3	16.4	18.9	..	..	50 14.34	− 0.25	..	+21.28	3 50 35.37	..
	42	μ	Leonis	N.	.	41.3	44.2	45.8	52.6	54.9	57.2	4.1	5.7	8.7	44 54.94	− 0.23	+21.34	+21.32	9 45 16.03	+ 0.03
	43	79	Draconis, S. P. .	N.	2	..	..	5.9	58.8	51.9	44.6	37.7	..	..	50 51.78	− 0.93	..	+21.32	21 51 12.17	− 0.12
	44	α	Leonis, (Ref.) . .	N.	2	48.1	50.6	52.1	58.3	..	..	..	..	..	1 0.50	− 0.24	..	+21.33	10 1 21.59	+ 0.12
	45	ρ	Leonis	N.	2	19.4	22.0	23.5	29.6	31.8	33.7	40.1	41.5	44.0	25 31.75	− 0.32	+21.28	+21.33	10 25 52.76	+ 0.01
	46	l	Leonis	N.	.	46.8	49.4	50.9	57.1	59.2	1.2	7.6	9.1	11.7	41 59.22	− 0.31	+21.34	+21.33	10 42 20.24	+ 0.06
7	47	α	Pegasi	N.	3	36.8	39.4	40.9	47.2	49.4	51.6	57.9	59.5	1.9	57 49.40	− 0.35	+21.53	+21.53	22 58 10.58	+ 0.01
	48		Mercury II, (center)	N.	2	23.5	26.1	27.5	33.7	35.7	37.8	44.0	45.5	48.0	32 35.75	− 0.48	..	+21.53	23 32 56.80	− 0.24

2.3.5.6.21. Wire A used.
8. R. A. observed over wires B, C_2, C_3, C_4.
9. R. A. observed over wires B, C_1, C_8, and D.
31. R. A. observed over wires C_4, C_5, and D_1. Give weight 3 to D_1.
32. R. A. observed over set E and VII.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	MICROSCOPE MICROMS. II.	MICROSCOPE MICROMS. III.	MICROSCOPE MICROMS. IV.	TELESCOPE MICROMETER. Rev.	TELESCOPE MICROMETER. 1.	TELESCOPE MICROMETER. 2.	TELESCOPE MICROMETER. 3.	TELESCOPE MICROMETER. 4.	TELESCOPE MICROMETER. 5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Simpiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	307 46	10 0.9	29.3	0.0	2.2	25	. .	824	860	846	864	10.0	307 49 24.6	488	− 1 13.6	358 54 32.2	− 2.4
2	46 14	7.1	5.2	4.9	6.6	32	. .	360	. .	362	. .	10.0	46 18 13.7	588	+ 1 1.3	97 25 36.2	− 3.3
3	31 58	10 0.0	27.0	26.0	29.3	34	. .	044	. .	070	. .	10.0	32 1 55.7	589	+ 36.6	83 8 53.5	− 3.0
4																	
5	39 12	7.0	4.0	4.0	5.6	33	. .	635	. .	760	. .	10.0	39 15 54.1	590	+ 47.9	90 23 3.2	− 4.2
6	307 28	9 28.0	26.0	27.9	29.8	.	. .	706	719	710	. .	10.0	307 31 15.1	. .	− 1 16.2	358 36 20.1	− 1.1
7	49 18	9 29.0	25.5	26.2	27.5	28	250	214	. .	056	025	10.0	49 20 53.2	590	+ 1 8.2	100 28 22.6	− 0.7
8																	
9	34 14	10 5.0	3.0	2.1	4.2	22	. .	. .	. .	498	460	9.8	34 18 12.5	420	+ 38.5	85 25 12.2	− 5.0
10	349 26	9 28.7	24.0	26.1	26.9	21	955	830	. .	775	700	9.8	349 30 31.0	370	− 10.3	40 36 41.9	− 1.0
11	307 46	9 24.4	23.0	23.9	23.5	26	. .	. .	. .	145	125	9.8	307 49 26.9	440	− 1 12.8	358 54 35.3	+ 0.8
12	22 0½	8 27.8	24.1	24.4	24.5	28	142	010	785	561	490	9.8	22 4 30.2	. .	+ 23.0	73 11 14.4	
13	31 54	9 27.6	25.2	23.4	24.4	19	090	170	. .	998	060	9.8	31 59 13.4	455	+ 35.5	83 6 10.1	+ 1.6
14	350 16	9 28.0	25.0	25.4	25.7	22	625	520	. .	421	364	9.8	350 20 21.2	. .	− 9.6	41 26 32.8	+ 0.2
15	27 36	26.7	24.5	23.5	23.7	18	. .	. .	. .	002	968	9.8	27 41 29.6	458	+ 29.8	78 48 20.6	− 0.2
16	280 56	24.0	23.1	23.5	23.0	24	. .	. .	. .	718	665	9.8	280 59 49.5	. .	− 4 43.8	332 1 26.9	+ 2.1
17	46 54	9 26.4	24.4	23.7	24.5	23	250	241	. .	078	092	9.8	46 58 11.3	455	+ 1 0.8	98 5 33.3	+ 1.1
18	28 50	9 28.8	25.4	25.5	26.5	23	031	102	. .	961	009	9.8	28 54 11.8	465	+ 31.4	80 1 4.4	− 1.2
19	27 34	9 28.5	25.8	25.5	26.2	21	025	970	. .	. .	. .	9.8	27 38 43.9	470	+ 29.8	78 45 34.9	− 1.0
20	336 22	26.4	23.6	24.5	23.8	22	991	898	. .	000	099	9.8	336 26 15.2	475	− 24.9	27 32 11.5	− 1.7
21	18 36	1.0	28.0	28.5	29.1	34	891	839	. .	910	790	10.6	18 39 42.3	. .	+ 19.7	69 46 23.2	+16.0
22	31 54	10 7.1	5.0	4.1	5.2	28	791	801	. .	761	745	10.6	31 59 10.0	580	+ 36.5	83 6 7.7	− 0.7
23	331 10	10 28.0	25.1	27.8	25.0	21	851	813	. .	759	761	10.6	331 14 2.7	584	− 32.1	22 19 51.8	− 1.8
24																	
25																	
26	28 42	9.6	6.2	6.5	7.6	28	. .	. .	. .	553	558	11.9	28 44 37.4	571	+ 32.0	79 51 30.6	+ 0.8
27	24 20	2.9	29.5	0.4	1.7	25	. .	. .	. .	250	122	11.9	24 23 35.4	565	+ 26.4	75 30 23.0	+ 2.2
28	45 28	3.8	1.5	1.7	2.8	27	110	080	. .	020	955	11.9	45 31 6.5	560	+ 59.2	96 38 26.9	− 7.4
29	32 36	2.1	0.4	29.9	2.0	33	485	518	. .	. .	. .	11.9	32 37 29.5	514	+ 36.9	83 44 27.6	− 4.8
30	33 8	3.9	1.0	1.1	2.5	33	. .	. .	. .	596	579	11.9	33 9 26.0	509	+ 37.6	84 16 24.8	− 4.8
31	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . . .	495			
32																	
33	17 6	5.3	1.6	2.5	4.3	23	360	. .	. .	. .	250	11.9	17 10 3.0	420	+ 17.4	68 16 41.6	− 2.7
34	17 6	5.3	1.6	2.5	4.3	24	. .	535	. .	390	. .	11.9	17 9 45.1	. .	+ 17.4	68 16 23.7	− 2.7
35	39 48	3.5	2.1	2.5	3.2	29	. .	828	. .	722	. .	12.7	39 50 25.1	708	+ 50.3	90 57 36.6	− 0.8
36	28 42	9.4	6.3	7.2	8.2	28	. .	871	. .	765	. .	12.7	28 44 34.8	700	+ 33.0	79 51 29.0	− 0.7
37																	
38	31 48	9 29.0	26.1	26.1	29.5	23	405	314	. .	. .	. .	12.7	31 52 9.1	. .	+ 36.8	82 59 7.1	− 4.7
39	32 20	10 0.5	28.1	29.6	0.5	23	. .	. .	. .	429	500	12.7	32 24 4.3	634	+ 37.6	83 31 3.1	− 4.7
40	16 30	3.5	0.2	1.5	4.1	24	422	. .	. .	. .	350	12.7	16 33 48.4	570	+ 17.3	67 40 26.9	− 2.6
41	16 30	3.5	0.2	1.5	4.1	25	. .	520	. .	498	. .	12.7	16 33 31.2	. .	+ 17.3	67 40 9.7	− 2.6
42	12 12	3.0	1.9	3.0	3.1	24	085	060	. .	928	900	12.7	12 15 53.9	655	+ 12.9	63 22 28.0	− 0.1
43	291 56	0.1	29.8	2.7	2.9	21	381	356	. .	. .	. .	12.7	292 0 35.2	. .	− 2 26.3	343 4 30.1	0.0
44	153 40	10 0.0	28.8	29.5	27.9	26	. .	440	. .	. .	780	12.7	153 43 20.8	. .	− 29.4	77 23 29.8	+ 0.5
45	28 50	2.6	29.2	0.1	2.0	23	115	022	. .	955	946	12.7	28 54 10.6	603	+ 32.9	80 1 4.7	− 0.6
46	27 34	3.0	29.9	0.8	2.1	20	. .	. .	897	. .	. .	12.7	27 38 42.2	. .	+ 31.2	78 45 34.6	− 1.1
47	24 20	10 2.2	28.0	0.1	2.6	25	. .	509	. .	391	. .	12.7	24 23 33.5	571	+ 26.5	75 30 21.2	+ 0.4
48	44 12	4.2	0.5	2.1	5.0	28	435	409	. .	235	250	12.7	44 14 47.0	557	+ 56.6	95 22 4.8	− 6.7

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
6	29.870	65.8	68.0
26	29.836	46.0	64.2
35	30.310	38.5	68.2
47	29.766	45.0	66.0

For summary of the elements of reduction see page 3.

No.	MOON'S— Paraliax.	MOON'S— Semi-diam.
	′ ″	′ ″
12	− 22 9.4	+ 16 14.9

DATE.	Number.		OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
						I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
															m. s.	s.	s.	s.	° ′ ″	s.
1858. April 7	1	α	Andromedæ . .	N.	3	58.3	1.2	2.9	9.9	12.1	14.3	21.4	23.1	26.0	1 12.13	– 0.25	+21.48	+21.54	0 1 33.42	+ 0.06
	2		Polaris	N.	.	. .	57.0	4.0	. .	. .	. .	11.0	. .	. .	9 34.70	+11.78	. .	+21.55	1 10 8.03	+ 1.24
8	3		Sun I, S. . . .	N.	2	59.8	2.3	. .	. .	. .	. .	. .	. .	. .	9 13.88	– 0.39	. .	+21.55	1 9 33.26	. .
	4		Sun II, N. . . .	N.	2	9.2	11.8	13.3	19.2	21.5	23.6	29.6	31.3	33.8	11 21.48	– 0.39	. .	+21.55	1 11 42.64	. .
	5		Venus I, S. . .	N.	2	20.5	23.2	25.0	. .	. .	. .	42.6	44.3	47.0	59 33.77	– 0.29	. .	+21.57	3 59 55.05	. .
	6		Venus II, N. . .	N.	2	. .	. .	30.1	32.6	34.7	36.8	38.9	. .	. .	59 34.62	– 0.29	. .	+21.57	3 59 55.90	. .
	7	α	Canis Minoris .	N.	3	50.3	52.8	54.3	0.5	2.5	4.5	10.8	12.2	14.8	32 2.52	– 0.41	+21.72	+21.60	7 32 23.71	–0.15
	8	β	Geminorum . .	N.	3	. .	. .	48.4	50.8	53.2	55.3	57.7	. .	. .	36 53.08	– 0.25	+21.63	+21.60	7 37 14.43	– 0.03
	9	ε	Draconis, S. P. .	N.	3	52.1	44.4	40.2	22.2	16.2	10.3	52.6	48.1	40.5	48 16.29	– 1.18	. .	+21.60	19 48 36.77	+ 0.23
	10	λ	Ursæ Min., S. P. .	N.	4	. .	. .	. .	55.0	6.0	19.5	. .	. .	. .	56 6.57	–15.98	. .	+21.60	19 56 12.19	– 0.71
	11	κ	Cephei, S. P. . .	N.	1	52.7	41.1	34.0	15.4	6.4	. .	47.6	. .	. .	12 56.97	– 1.67	. .	+21.61	20 12 16.91	+ 0.16
	12	κ	Cancri	N.	3	2.9	5.6	7.0	13.2	15.3	17.4	23.6	25.1	27.7	0 15.31	– 0.37	+21.56	+21.61	9 0 36.55	+ 0.05
	13	α	Hydræ	N.	2	33.5	36.1	37.6	43.4	45.8	47.9	54.2	55.6	58.2	20 45.86	– 0.49	+21.65	+21.62	9 21 6.99	– 0.03
	14		Anonymous. . .	N.	1	41.2	42.7	47.3	49.5	51.4	53.5	55.5	0.5	1.9	38 51.50	– 0.31	. .	+21.62	9 39 12.81	+ 5.70
	15		Polaris, S. P. . .	N.	2	. .	. .	47.0	. .	58.0	36.0	. .	. .	. .	9 58.57	–12.53	. .	+21.65	1 10 7.69	+ 0.84
	16	ζ	Virginis . . .	N.	3	26.3	28.8	30.4	36.5	38.5	40.5	46.5	48.2	50.5	27 38.47	– 0.44	+21.65	+21.65	13 27 59.68	0.00
	17	η	Ursæ Maj., (Ref.) .	N.	2	45.1	47.4	53.9	57.1	0.1	3.2	6.5	13.7	15.1	41 0.23	+ 0.14	. .	+21.65	13 42 22.02	+ 0.15
	18	θ	Bootis, (Ref.) . .	N.	2	6.0	9.0	15.5	19.0	22.3	25.5	35.6	38.6	43.3	20 22.27	+ 0.18	. .	+21.65	14 20 44.10	+ 0.30
	19	ε	Bootis	N.	3	39.5	42.5	44.3	51.1	53.5	55.7	2.7	4.3	7.2	38 53.42	– 0.26	+21.58	+21.66	14 39 14.82	+ 0.07
	20		Moon II, S. . .	N.	2.1	48.0	50.6	52.2	58.7	0.8	3.0	9.2	10.9	13.5	56 0.77	– 0.53	. .	+21.66	14 56 21.90	–66.24
17	21		Venus I, S. . .	N.	2	4.9	7.5	9.4	. .	. .	. .	27.4	29.0	32.2	41 18.37	– 0.08	. .	+45.85	4 42 4.14	. .
	22		Venus II, N. . .	N.	.	. .	. .	14.9	17.1	19.3	21.7	24.0	. .	. .	41 19.40	– 0.08	. .	+45.85	4 42 5.17	. .
	23	ι	Aurigæ . . .	N.	2	23.1	26.1	27.9	35.1	37.6	40.1	47.4	49.1	52.3	47 37.63	– 0.07	+45.85	+45.85	4 47 23.41	– 0.03
	24	α	Andromedæ . .	N.	3	32.8	35.8	37.4	44.4	46.8	49.0	56.0	57.8	0.8	0 46.75	– 0.09	+46.83	+46.72	0 1 33.38	– 0.11
	25		Mercury, (center) .	N.	3	16.5	19.0	20.4	26.6	28.7	30.7	37.0	38.4	41.0	21 28.70	– 0.08	. .	+46.75	0 22 15.37	– 0.06
	26		Polaris	N.	2	. .	. .	36.0	0.5	23.0	47.5	8.0	. .	. .	9 23.34	– 1.06	. .	+46.79	1 10 9.07	+ 0.99
18	27		Sun I, S. . . .	N.	2	. .	. .	34.5	36.6	38.8	40.8	43.0	. .	. .	45 38.74	– 0.08	. .	+46.81	1 46 25.45	. .
	28		Sun II, N. . . .	N.	.	. .	. .	44.8	46.8	48.9	51.0	53.0	. .	. .	47 48.91	– 0.08	. .	+46.81	1 48 35.64	. .
	29	α	Tauri	N.	4	20.6	23.3	25.0	31.2	33.4	35.5	41.9	43.5	46.1	27 33.29	– 0.08	+47.00	+46.93	4 28 20.24	– 0.07
	30		Venus I, S. . .	N.	3	44.2	47.2	48.9	. .	. .	. .	7.1	8.7	11.6	45 57.95	– 0.08	. .	+46.94	4 46 44.81	. .
	31		Venus II, N. . .	N.	.	. .	. .	54.3	56.6	58.9	1.1	3.4	. .	. .	45 58.86	– 0.08	. .	+46.94	4 46 45.72	. .
	32	ι	Aurigæ . . .	N.	3	. .	. .	31.7	34.1	36.5	39.0	41.5	. .	. .	47 36.56	– 0.09	+46.94	+46.94	4 48 23.41	– 0.03
	33	μ	Leonis	N.	3	15.3	18.2	20.0	26.7	28.9	31.1	38.2	39.9	42.5	44 28.98	– 0.08	+46.97	+47.16	9 45 16.06	+ 0.24
21	34	β	Cephei, S. P. . .	N.	3	. .	. .	19.1	14.1	7.5	1.2	55.5	. .	. .	27 7.28	– 0.18	. .	+50.11	21 27 57.21	+ 0.33
	35	ε	Leonis, (R.) . .	N.	3	32.4	35.2	37.0	43.6	46.0	48.1	54.8	56.4	59.3	37 45.87	+ 0.01	. .	+36.12	9 38 22.00	+ 0.01
	36	μ	Leonis	N.	4	26.1	29.0	30.7	37.5	39.7	42.0	49.0	50.5	53.4	44 39.77	– 0.14	+36.19	+36.12	9 45 15.75	– 0.02
	37	79	Draconis, S. P. .	N.	3	. .	. .	51.7	44.2	37.8	30.4	23.5	. .	. .	50 37.52	– 0.19	. .	+36.13	21 51 13.46	+ 0.15
	38	α	Leonis, (R.) . .	N.	3	32.6	35.1	36.7	42.9	45.1	47.1	53.5	55.2	57.5	0 45.08	– 0.02	. .	+36.13	10 1 21.19	– 0.10
	39	γ	Leonis, (R.) . .	N.	3	53.1	56.0	57.6	3.9	6.2	8.3	15.0	16.5	19.2	12 6.20	0.00	. .	+36.14	10 12 42.34	– 0.04
	40	9	Draconis . . .	N.	3	. .	. .	55.6	4.0	13.0	21.6	30.0	. .	. .	22 12.84	– 0.06	. .	+36.15	10 22 48.93	– 0.42
	41	ρ	Leonis	N.	3	4.1	6.7	8.2	14.5	16.5	18.5	24.7	26.3	28.9	24 16.49	– 0.15	+36.21	+36.15	10 24 52.49	– 0.10
	42	α	Ursæ Majoris, (R.)	N.	3	31.8	37.4	40.5	54.0	58.5	2.7	16.0	19.3	25.0	54 58.36	+ 0.17	. .	+36.17	10 55 34.70	– 0.05
	43	δ	Crateris . . .	N.	3	57.5	0.0	1.6	7.9	10.0	12.1	18.5	19.9	22.6	12 10.12	– 0.17	+36.16	+36.18	11 12 46.12	+ 0.12
	44	λ	Draconis . . .	N.	4	. .	. .	46.1	51.7	57.9	4.0	10.0	. .	. .	22 57.94	– 0.08	. .	+36.19	11 22 34.05	+ 0.24
	45	υ	Leonis	N.	3	24.4	27.0	28.5	34.7	36.7	38.8	45.0	46.4	49.1	29 36.73	– 0.16	+36.21	+36.19	11 29 12.76	– 0.03
	46	γ	Ursæ Majoris . .	N.	4	57.3	1.1	3.6	15.5	17.9	21.3	31.7	34.4	38.9	46 17.97	– 0.11	. .	+36.21	11 46 54.07	+ 0.15
	47	4	(H.) Draconis . .	N.	4	. .	. .	5.7	15.7	25.7	35.6	45.9	. .	. .	5 25.72	– 0.04	. .	+36.22	12 6 1.90	– 0.23
	48	η	Virginis . . .	N.	.	22.3	25.0	26.5	32.6	34.6	36.6	42.7	44.3	46.8	12 34.60	– 0.16	+36.23	+36.23	12 13 10.67	– 0.01
	49	κ	Draconis, (R.) .	N.	2.4	. .	3.4	. .	. .	21.5	27.9	39.8	44.7	52.2	27 15.55	+ 0.28	. .	+36.24	12 27 52.07	– 0.25

3. R. A. observed over wires B$_1$ and B$_2$. Only ¼ weight to this observation.
25. Sun had been shining on microscope III and on west pier.
37. Observed over IV and set B in N. P. D.
39. Give ½ weight to the last two readings of telescope micrometer.
40.44.47.49. Sets B and D in N. P. D.
49. Observed over wires C$_1$, C$_4$, C$_6$, and D$_1$.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometre.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	10 28	8.2	4.0	7.3	8.1	23	. .	. .	661	. .	. .	12.7	10 31 54.6	547	+ 10.8	61 38 26.6	+ 1.2
2																	
3	31 36	3.8	0.8	0.4	2.2	26	554	702	. .	. .	. .	12.7	31 39 15.0	. .	+ 35.3	82 46 11.5	− 4.6
4	31 4	3.8	0.7	0.8	2.0	26	. .	. .	. .	338	307	12.7	31 7 18.4	494	+ 34.6	82 14 14.2	− 4.6
5	15 56	9.5	5.3	6.1	8.0	24	. .	. .	105	. .	. .	12.5	15 59 47.3	459	+ 16.3	67 6 24.8	− 2.6
6	15 56	9.5	5.3	6.1	8.0	25	. .	. .	. .	285	. .	12.5	15 59 28.8	. .	+ 16.3	67 6 6.3	− 2.6
7	33 16	10 3.1	29.6	0.7	2.1	25	322	317	. .	191	150	12.0	33 19 35.2	. .	+ 37.9	84 26 34.3	− 0.3
8	10 30	2.4	29.3	1.0	1.6	27	. .	. .	580	. .	. .	12.0	10 32 59.8	524	+ 10.7	61 39 31.7	− 1.6
9																	
10	307 46	4.6	2.7	4.5	6.0	25	. .	590	610	645	. .	12.0	307 49 26.4	. .	− 1 14.3	358 54 33.3	− 0.7
11	296 10	3.5	0.5	4.1	4.9	22	950	998	925	. .	. .	12.0	296 14 8.3	555	− 1 57.4	347 18 32.1	0.0
12	27 38	3.6	29.9	1.1	2.9	25	740	. .	. .	. .	565	12.0	27 41 28.6	608	+ 30.9	78 48 20.7	+ 0.6
13	46 54	6.5	3.7	4.2	5.9	22	885	830	. .	708	696	12.0	46 58 9.1	. .	+ 1 3.3	98 5 33.6	+ 1.2
14	18 30	3.1	0.4	1.0	2.5	22	490	400	. .	335	295	12.0	18 34 18.8	. .	+ 19.9	69 40 59.9	+ 24.9
15	307 28	7.1	5.3	7.5	8.8	26	115	156	. .	. .	. .	11.9	307 31 15.3	730	− 1 18.7	358 36 17.8	− 0.7
16	38 44	10.1	6.7	8.0	8.6	22	640	681	. .	470	463	11.9	38 48 9.1	. .	+ 48.7	89 55 19.0	+ 0.6
17	191 2	9 29.7	29.7	0.5	28.8	29	725	645	. .	518	460	11.9	191 4 29.7	734	+ 11.9	40 1 39.6	− 1.9
18	193 30	0.2	0.3	1.4	29.4	24	715	. .	730	609	512	11.9	193 33 45.0	742	+ 14.6	37 32 21.6	− 1.7
19	11 12	9 29.6	27.0	29.3	29.6	25	435	390	. .	285	230	11.9	11 15 36.5	. .	+ 12.1	62 22 9.8	− 1.1
20	51 26	7.7	6.0	6.5	7.2	16	988	704	420	205	145	11.9	51 31 43.9	751	+ 1 16.5	102 39 21.6	
21	13 50	6.2	1.8	2.5	4.9	20	700	. .	. .	. .	540	10.7	13 54 42.4	391	+ 13.9	65 1 17.5	− 2.4
22	13 50	6.2	1.8	2.5	4.9	22	. .	020	. .	859	. .	10.7	13 54 22.0	. .	+ 13.9	65 0 57.1	− 2.4
23	5 32	7.1	2.1	3.3	4.9	21	. .	870	. .	688	. .	10.7	5 56 24.1	. .	+ 5.8	56 2 51.1	− 0.4
24	10 28	7.2	5.8	6.2	6.1	23	650	572	. .	522	520	10.7	10 31 54.9	545	+ 10.8	61 38 26.9	+ 0.9
25	39 20	8.8	7.0	7.1	6.9	27	655	595	. .	625	652	10.7	39 22 51.3	545	+ 47.6	90 30 0.1	− 5.2
26	310 14	6.5	6.2	6.8	6.9	21	158	152	185	168	150	10.7	310 18 31.2	520	− 1 7.9	1 23 44.5	+ 0.5
27	28 0	11 13.1	8.8	8.8	12.3	23	850	811	. .	. .	. .	10.6	28 3 18.3	. .	+ 30.7	79 10 10.2	− 4.1
28	27 28	10 0.5	29.0	27.4	19.1	25	. .	. .	. .	922	888	10.6	27 31 25.6	522	+ 30.0	78 38 16.8	− 4.1
29	22 34	9.7	8.3	7.1	7.3	19	. .	. .	490	. .	. .	10.6	22 38 54.9	510	+ 24.0	73 45 40.1	− 0.4
30	13 40	7.1	5.7	5.3	5.7	24	429	. .	. .	. .	280	10.6	13 43 43.2	. .	+ 14.1	64 50 18.5	− 2.4
31	13 40	7.1	5.7	5.3	5.7	25	. .	637	. .	505	. .	10.6	13 43 24.4	. .	+ 14.1	64 49 59.7	− 2.4
32	5 52	5.6	3.8	3.7	3.9	21	. .	. .	. .	785	. .	10.6	5 56 23.2	520	+ 6.0	57 2 50.4	− 1.2
33	12.12	8.5	6.7	6.0	5.9	23	820	712	. .	600	580	10.6	12 15 52.6	600	+ 12.8	63 22 26.6	− 0.3
34	288 52	10 2.8	0.4	3.3	3.4	26	861	964	. .	851	828	10.8	288 55 7.8	591	− 2 49.3	339 58 39.7	− 0.2
35	165 26	4.3	3.9	4.5	2.6	25	. .	940	980	911	840	10.8	165 29 20.8	. .	− 15.2	66 37 15.6	0.0
36	12 12	7.8	5.3	6.1	6.3	23	865	862	. .	754	750	10.8	12 15 51.2	. .	+ 12.8	63 22 25.2	− 1.4
37	291 56	4.4	2.6	4.8	5.4	21	382	360	355	. .	. .	10.8	292 0 30.4	598	− 2 24.3	343 4 27.3	− 0.6
38	153 40	3.1	1.4	2.2	0.8	26	148	142	. .	050	978	10.8	153 43 20.6	. .	− 29.0	78 23 29.6	+ 1.3
39	161 34	4.9	5.1	4.9	2.9	27	130	090	. .	015	960	10.8	161 37 3.4	. .	− 19.5	69 29 37.3	− 0.4
40	322 28	7.3	4.7	7.7	7.3	28	144	170	. .	091	128	10.8	322 30 44.7	. .	− 45.1	13 36 20.8	− 1.9
41	28 50	3.9	1.5	2.3	3.0	22	. .	. .	880	. .	. .	10.8	28 54 8.8	606	+ 32.5	80 1 2.5	− 1.9
42	203 30	3.5	4.6	6.6	3.2	24	092	140	. .	984	910	10.8	203 33 48.4	618	+ 25.7	27 32 7.1	− 1.6
43	52 52	6.3	4.3	3.3	4.6	21	735	640	. .	610	524	10.8	52 56 25.9	. .	+ 1 18.0	104 4 5.1	− 2.2
44	328 46	8.0	4.7	7.2	7.6	21	004	006	. .	954	995	10.8	328 50 33.6	624	− 35.7	19 56 19.1	− 2.4
45	38 54	6.0	4.0	4.0	4.2	20	594	570	. .	482	440	10.8	38 58 42.9	. .	+ 47.8	90 5 51.9	− 1.3
46	344 24	7.8	4.0	6.1	6.0	22	. .	. .	663	. .	. .	10.8	344 28 8.8	628	− 16.4	35 34 13.6	− 0.3
47	320 30	2.9	0.3	3.1	3.3	26	. .	178	084	146	. .	10.8	320 33 19.4	. .	− 48.6	11 38 52.0	− 3.3
48	38 44	7.3	4.6	5.0	5.3	19	. .	539	. .	. .	385	10.8	38 48 58.4	631	+ 47.5	89 55 7.1	− 0.7
49	211 34	3.2	5.3	6.4	4.4	27	980	965	. .	920	914	10.8	211 36 49.1	. .	+ 36.4	19 28 55.7	− 2.7

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
24	30.216	56.1	67.0
34	30.177	48.4	72.5

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
20	− 44 39.5	− 15 37.7

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	II.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Apr. 21	1	θ Virginis . . .	N.	.	20.3	22.9	24.5	30.5	32.5	34.7	41.0	42.3	44.9	2 32.62	− 0.11	+36.18	+36.26	13 3 8.77	+ 0.05
	2	Polaris, S. P. . .	N.	2	. .	. .	23.0	58.0	34.0	13.0	46.5	. .	. .	9 34.58	− 0.93	. .	+36.27	1 10 9.92	+ 0.89
	3	Polaris, S. P., (R.)	N.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	4	Mnemosyne . .	N.	2	2.6	5.4	6.7	12.7	. .	16.9	23.1	24.5	27.0	38 14.86	− 0.17	. .	+36.29	13 38 50.98	. .
	5	η Bootis	N.	3	36.3	39.1	40.7	47.3	49.5	51.5	58.0	59.6	2.3	47 49.37	− 0.14	+36.28	+36.30	13 48 25.53	− 0.01
	6	Euphrosyne . .	N.	1.2	16.6	18.9	21.0	. .	28.7	. .	37.7	39.3	41.9	0 29.16	− 0.17	. .	+36.31	14 1 5.30	. .
	7	α Bootis	N.	3	50.9	53.5	55.2	1.6	3.8	5.9	12.4	14.1	16.8	9 3.80	− 0.14	+36.35	+36.31	14 9 39.97	− 0.03
22	8	Polaris. . . .	E.	.	. .	. .	25.0	50.0	. .	38.0	3.0	. .	. .	9 14.32	. .	. .	. .	. . . .	. .
23	9	Sun I, N. . . .	E.	.	. .	. .	10.0	12.4	14.5	16.7	18.9	. .	. .	4 14.50	− 0.13	. .	+51.98	2 5 6.35	. .
	10	Sun II, S. . . .	E.	.	12.8	15.5	17.0	23.5	25.5	27.5	33.8	35.5	38.1	6 25.47	− 0.13	. .	+51.98	2 7 17.32	. .
	11	Venus I . . .	E.	.	56.6	59.3	1.1	7.7	10.0	12.2	19.4	21.0	23.7	9 10.11	− 0.11	. .	+52.04	5 10 2.04	+ 0.77
	12	β Tauri	E.	.	50.5	53.4	55.4	2.1	4.5	6.9	13.8	15.6	18.5	17 4.52	− 0.10	+51.98	+52.04	5 17 56.46	+ 0.05
	13	δ Leonis	E.	.	. .	. .	. .	. .	40.4	43.5	45.0	45.9	46.8	6 14.14	− 0.12	+52.21	+52.16	11 7 6.18	− 0.07
	14	λ Draconis . . .	E.	.	5.6	13.0	18.5	35.6	41.7	47.5	5.4	10.0	17.2	22 41.62	+ 0.12	. .	+52.16	11 23 33.90	+ 0.18
	15	γ Cephei, S. P. . .	E.	.	. .	. .	22.1	12.5	3.2	55.4	46.0	. .	. .	33 3.84	− 0.61	. .	+52.17	23 33 55.40	− 0.02
	16	γ Ursæ Majoris, (R.)	E.	.	40.5	44.8	47.5	54.0	. .	8.9	15.5	18.4	22.7	1.54	+ 0.09	. .	+52.17	11 46 53.80	− 0.09
	17	ο Virginis . . .	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	18	4 Draconis . . .	E.	.	. .	. .	47.6	59.1	9.6	19.8	29.5	. .	. .	5 9.12	+ 0.33	. .	+52.18	12 6 1.63	− 0.40
24	19	Sun I, S. . . .	A.	2	46.8	49.7	51.3	57.4	59.6	1.6	7.8	9.2	12.0	7 59.49	− 0.14	. .	+52.40	2 8 51.75	. .
	20	Sun II, N. . . .	A.	2	57.8	0.5	2.5	8.5	10.6	12.6	18.7	20.6	23.2	10 10.56	− 0.14	. .	+52.40	2 11 2.82	. .
	21	α Tauri	A.	.	. .	. .	. .	. .	53.4	56.7	57.6	58.8	0.0	27 28.00	− 0.14	+52.41	+52.40	4 28 20.26	− 0.01
	22	4 Draconis . . .	A.	3	. .	. .	49.1	58.2	9.1	18.9	29.1	. .	. .	5 8.88	+ 0.13	. .	+52.42	12 6 1.43	− 0.54
	23	η Virginis . . .	A.	3	6.3	8.8	10.3	16.4	18.4	20.4	26.6	28.1	30.7	12 18.45	− 0.16	+52.36	+52.42	12 13 10.71	+ 0.05
	24	κ Draconis, (R.) .	A.	4	. .	. .	47.1	53.2	59.4	5.6	11.5	. .	. .	26 59.36	+ 0.34	. .	+52.42	12 27 52.12	− 0.13
	25	21 Cassiopeæ, S. P. .	A.	4	49.6	40.2	34.7	19.1	11.6	4.2	. .	. .	. .	36 4.34	− 0.34	. .	+52.42	0 36 56.42	− 0.48
	26	12 Canum Venat. .	A.	5	44.1	47.5	49.5	57.4	0.0	2.7	10.6	12.5	16.1	49 0.04	− 0.10	+52.48	+52.42	12 49 52.36	− 0.05
	27	Polaris, S. P. . .	A.	4	. .	. .	8.5	42.0	22.0	0.0	35.0	. .	. .	9 21.20	− 2.56	. .	+52.42	1 10 11.06	+ 0.84
	28	Mnemosyne . .	A.	1	. .	. .	. .	54.8	58.3	3.7	8.0	9.1	11.8	35 59.24	− 0.17	. .	+52.42	13 36 51.49	. .
	29	η Bootis	A.	4	20.3	22.9	24.6	31.1	33.3	35.5	42.0	43.6	46.2	47 33.28	− 0.14	+52.39	+52.42	13 48 25.56	0.00
	30	Euphrosyne . .	A.	4	2.1	4.8	6.6	12.5	14.8	16.8	23.1	24.6	27.3	57 14.73	− 0.18	. .	+52.42	13 58 6.97	. .
	31	α Bootis	A.	4	34.8	37.3	39.0	45.5	47.8	49.7	56.4	58.0	0.6	8 47.68	− 0.13	+52.48	+52.42	14 9 39.97	− 0.05
26	32	Polaris	N.	3	. .	. .	28.0	. .	13.0	37.0	15.0	. .	. .	10 15.35	+ 3.69	. .	− 5.41	1 10 13.63	+ 2.43
	33	Mercury, (center) .	N.	3	22.2	24.7	26.2	32.3	34.5	36.4	42.8	44.2	46.8	16 34.46	− 0.17	. .	− 5.41	1 16 28.88	− 0.03
27	34	Sun I, N. . . .	N.	4.3	4.4	7.0	8.6	15.0	17.1	19.2	25.5	27.1	29.6	20 17.06	− 0.16	. .	− 5.42	2 20 11.48	. .
	35	Sun II, S. . . .	N.	4.3	15.7	18.4	20.0	26.3	28.4	30.6	36.9	38.4	41.0	22 28.41	− 0.16	. .	− 5.42	2 22 22.83	. .
	36	β Tauri	N.	4	48.1	51.0	52.6	59.6	1.9	4.2	11.1	13.0	15.9	18 1.93	− 0.14	− 5.43	− 5.43	5 17 56.36	− 0.01
	37	Venus I, S. . .	N.	4	19.4	22.3	24.1	30.8	33.2	35.4	42.2	44.0	47.0	28 33.16	− 0.14	. .	− 5.44	5 28 27.58	+ 0.81
	38	Venus, N. . . .	N.	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	39	α Orionis . . .	N.	4	54.3	57.0	58.2	4.6	6.7	8.7	15.0	16.5	19.1	48 6.68	− 0.17	− 5.39	− 5.44	5 48 1.07	− 0.05
	40	α Canis Minoris, (R.)	N.	3	. .	. .	24.9	26.8	28.9	31.0	33.0	. .	. .	32 28.92	− 0.01	. .	− 5.45	7 32 23.46	− 0.08
	41	β Geminornm, (R.) .	N.	4	5.6	8.5	10.3	17.1	19.5	21.8	28.7	30.5	33.5	37 19.50	+ 0.08	. .	− 5.45	7 37 14.13	+ 0.02
	42	9 Draconis . . .	N.	3	1.5	12.9	19.0	45.7	53.3	2.9	28.7	35.4	46.3	23 53.99	+ 0.19	. .	− 5.47	10 23 48.69	− 0.22
	43	l Leonis	N.	.	13.2	15.9	17.4	23.6	25.7	27.8	34.0	35.7	38.1	42 25.71	− 0 17	− 5.50	− 5.47	10 42 20.07	+ 0.10
	44	ι Cephei, S. P. . .	N.	2	34.9	28.4	24.8	9.2	5.0	0.1	45.3	41.5	35.3	45 4.94	− 0.42	. .	− 5.47	22 44 59.05	+ 0.08
	45	α Ursæ Majoris . .	N.	2	13.6	19.1	22.5	35.7	40.2	44.4	57.7	1.0	6.5	55 40.08	− 0.01	. .	− 5.48	10 55 34.59	+ 0.03
	46	δ Leonis, (R.) . .	N.	3	58.6	1.2	2.9	9.5	11.7	13.8	20.3	22.0	24.8	7 11.64	+ 0.05	. .	− 5.48	11 7 6.21	+ 0.01
	47	Comp. * for (98) .	N.	2	5.4	8.0	9.6	15.7	17.7	19.7	26.0	27.4	29.9	16 17.71	− 0.19	. .	− 5.48	11 16 12.04	+ 4.89
	48	υ Leonis	N.	3	6.1	8.6	10.1	16.4	18.3	20.3	26.5	28.1	30.6	30 18.33	− 0.18	− 5.41	− 5.48	11 30 12.67	− 0.08

4.6.12.28.30. Wire A used.
12. N. P. D. all wrong.
13.21. R. A. over set E.
33. Sun shone on sympiesometer ten minutes after transit.
42.44. B and D in N. P. D.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Simpiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	43 40	4.5	2.5	3.0	4.4	28	195	111	. .	033	000	10.8	43 42 48.3	. .	+ 56.7	94 50 6.2	− 2.3
2	307 28	4.3	2.6	4.2	5.1	26	635	655	655	649	611	10.8	307 31 9.7	648	− 1 17.2	358 36 13.7	− 0.8
3	232 26	3.8	4.7	5.9	4.3	28	505	435	346	311	270	10.8	232 28 49.8	. .	+ 1 17.2	358 36 14.2	− 0.3
4	46 2	6.5	4.3	4.7	5.3	28	. .	924	. .	774	. .	10.8	46 7 9.1	. .	+ 1 1.8	97 14 32.1	− 2.6
5	19 46	8.4	6.1	6.4	6.9	24	305	280	. .	184	172	10.8	19 49 44.0	654	+ 21.5	70 56 26.7	− 0.1
6	51 58	8.1	6.1	6.1	6.7	24	. .	940	. .	912	. .	10.8	52 4 7.5	. .	+ 1 16.3	103 11 45.0	− 3.0
7	18 58	7.7	5.3	6.2	6.3	26	729	698	. .	605	562	10.8	19 1 7.7	656	+ 20.5	70 7 49.4	+ 1.0
8	310 14	8.2	7.4	8.3	8.5	21	125	983	. .	058	108	11.7	310 18 32.2	. .	− 1 6.9	1 23 46.5	+ 0.9
9	25 46	5.8	0.7	0.0	2.8	?23	935	940	. .	. .	. .	11.7	25 49 54.7	. .	+ 27.1	76 56 43.0	− 3.8
10	26 18	10 3.2	28.5	28.4	1.1	24	. .	. .	. .	428	550	11.7	26 21 47.0	399	+ 27.8	77 28 36.0	− 3.9
11																	
12	10 20	19.3	17.0	15.4	16.3	22	. .	. .	. .	323	332	11.7					
13	17 36	8.3	5.3	3.3	6.0	28	. .	. .	. .	. .	648	11.7	17 38 37.5	. .	+ 18.7	68 45 17.4	− 1.0
14	328 46	6.7	5.3	6.5	5.4	29	168	960	. .	958	023	11.7	328 48 33.9	. .	+ 35.5	19 54 19.6	− 1.4
15	295 46	5.3	4.0	3.8	3.5	26	. .	. .	423	. .	. .	11.7	295 49 14.1	. .	− 2 1.1	346 53 34.2	+ 0.4
16	195 28	8.1	8.3	6.0	7.0	23	680	633	. .	622	550	11.7	195 31 53.0	. .	+ 16.4	35 34 11.8	− 2.0
17	29 22	15.5	12.8	10.2	10.4	25	. .	. .	. .	810	760	11.7	29 25 14.8	. .	+ 33.3	80 32 9.3	− 0.3
18	320 30	9.3	8.7	8.0	7.0	25	. .	. .	. .	695	940	11.7	320 33 20.8	. .	− 48.5	11 38 53.5	1.3
19	26 0	6.6	3.9	2.1	4.3	30	940	111	. .	. .	. .	11.5	26 2 4.1	. .	+ 28.7	77 8 54.0	− 3.9
20	25 28	4.0	2.6	1.7	2.3	30	. .	. .	. .	586	481	11.5	25 30 12.0	604	+ 28.0	76 37 1.2	− 3.8
21																	
22																	
23	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . . .	641			
24	211 34	8.0	11.0	10.6	8.2	27	729	732	. .	599	464	10.6	211 36 49.0	640	+ 36.5	19 28 55.7	− 1.9
25	293 8	6.1	5.5	6.5	7.1	24	. .	151	. .	142	143	10.6	293 11 44.8	645	− 2 17.7	344 15 48.3	+ 2.0
26	359 48	8.0	6.0	6.0	5.8	24	. .	. .	. .	219	170	10.6	359 51 44.2	. .	− 0.2	50 58 5.2	− 0.9
27	307 28	7.9	7.0	7.0	7.6	26	470	479	577	512	430	10.6	307 31 8.5	645	− 1 17.2	358 36 12.5	− 1.1
28	45 40	4.9	3.1	2.5	3.1	25	. .	. .	. .	659	941	10.6	45 45 56.6	. .	+ 1 0.9	96 53 18.7	− 2.6
29	19 46	5.3	3.1	3.0	3.4	24	591	520	. .	489	510	10.6	19 49 42.6	650	+ 21.4	70 56 25.2	− 1.2
30	52 0	9.7	7.7	7.1	7.6	23	481	304	. .	550	491	10.6	52 6 28.5	652	+ 1 16.3	103 14 6.0	− 3.0
31	18 58	3.0	1.4	1.3	1.9	27	068	069	. .	995	991	10.6	19 .1 6.1	654	+ 20.5	70 7 47.8	− 0.2
32																	
33	33 18	9.0	5.8	4.6	7.0	24	. .	. .	. .	685	720	10.3	33 21 36.5	472?	+ 37.5	84 28 35.2	− 4.1
34	24 28	10 1.6	28.0	26.1	28.0	21	812	768	. .	. .	. .	10.3	24 32 30.0	. .	+ 25.9	75 39 17.1	− 3.6
35	25 0	7.6	4.9	2.9	4.4	22	. .	. .	280	265	268	10.3	25 4 14.8	456	+ 26.6	76 11 2.6	− 3.7
36	10 20	7.8	4.4	4.0	5.4	23	. .	220	. .	164	. .	10.3	10 24 1.0	. .	+ 10.4	61 30 32.6	− 0.9
37	12 30	10 15.7	12.1	11.1	11.9	28	087	. .	. .	. .	921	10.3	12 32 40.3	. .	+ 12.6	63 39 14.1	− 2.4
38	12 30	10 15.7	12.1	11.1	11.9	29	. .	429	. .	270	. .	10.3	12 32 19.5	446	+ 12.6	63 38 53.3	− 2.4
39	31 26	9.2	6.2	4.0	6.5	21	. .	330	. .	240	. .	10.3	31 30 28.9	457	+ 34.8	82 37 24.9	− 0.7
40	146 38	7.6	7.1	4.9	4.0	29	. .	. .	. .	430	390	10.3	146 40 24.1	. .	− 37.4	84 26 34.5	+ 0.5
41	169 24	8.4	7.2	5.6	4.5	27	. .	211	. .	014	. .	10.3	169 26 59.7	462	− 10.6	61 39 32.1	− 0.6
42	322 28	6.1	3.8	4.3	4.7	28	375	355	. .	300	320	10.3	322 30 43.1	531	− 44.3	13 36 20.0	− 1.8
43	27 36	6.1	4.4	3.2	3.4	28	. .	. .	452	. .	. .	10.3	27 38 41.5	. .	+ 30.3	78 45 33.0	− 1.2
44	284 24	3.5	2.7	2.7	2.6	25	. .	444	590	416	. .	10.3	284 27 28.3	532	− 3 40.4	335 30 9.1	− 1.4
45	336 22	4.4	2.9	2.9	2.0	22	918	852	. .	765	800	10.3	336 26 9.7	. .	− 25.2	27 32 5.7	− 1.8
46	162 18	3.5	3.8	2.5	29.7	25	. .	. .	980	887	829	10.3	162 21 21.8	. .	− 18.4	68 45 17.8	− 0.2
47	40 46	6.7	5.0	3.1	3.7	30	. .	. .	480	448	372	10.3	40 48 10.2	540	+ 50.0	91 55 21.4	+28.3
48	38 56	6.5	4.6	3.0	3.2	28	415	378	. .	254	226	10.3	38 58 43.5	. .	+ 46.8	90 5 51.5	− 1.5

No.	Barom.	External Therm.	Attached Therm.		No.	MOON'S—	
						Parallax.	Semi-diam.
	in.	°	°	*For summary of the elements of reduction see page 3.*		′ ″	′ ″

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
														m. s.	s.	s.	s.	h. m. s.	s.
1868. Apr. 27	1	γ Ursæ Majoris, (R.)	N.	2	42.5	45.1	52.0	55.4	58.8	. .	13.2	15.8	20.2	46 59.06	+ 0.27	. .	− 5.48	11 46 53.87	+ 0.05
	2	o Virginis	N.	4	23.5	26.2	27.9	34.1	36.1	38.1	44.4	46.0	48.4	58 36.08	− 0.17	− 5.50	− 5.48	11 58 30.43	− 0.04
	3	4 (H) Draconis	N.	2	6.1	19.1	26.7	56.6	6.6	16.9	47.0	55.0	7.4	6 6.82	+ 0.27	. .	− 5.48	12 6 1.61	− 0.15
	4	κ Draconis, (R.)	N.	1.3	. .	28.1	32.7	44.8	57.3	3.3	9.5	21.7	34.1	27 57.22	+ 0.59	. .	− 5.49	12 27 52.32	+ 0.16
	5	21 Cassiopeæ, S. P.	N.	2	48.3	38.8	33.4	10.8	3.5	56.1	33.3	27.2	18.1	37 3.28	− 0.56	. .	− 5.49	0 36 57.23	+ 0.18
	6	θ Virginis	N.	.	2.2	4.7	6.3	12.5	14.5	16.5	22.6	24.2	26.6	3 14.45	− 0.19	− 5.57	− 5.49	13 3 8.77	+ 0.05
	7	Polaris, S. P.	N.	3	. .	. .	12.0	44.0	23.0	0.0	34.0	. .	. .	10 22.92	− 4.09	. .	− 5.49	1 10 13.34	+ 1.95
	8	η Ursæ Majoris, (R.)	N.	2	8.2	12.0	14.3	23.7	27.1	30.4	39.8	42.3	46.2	42 27.11	+ 0.22	. .	− 5.50	13 42 21.83	− 0.10
	9	Euphrosyne	N.	.	6.5	8.2	12.2	14.3	16.4	18.6	20.6	24.7	26.5	55 16.45	− 0.21	. .	− 5.50	13 55 10.74	. .
	10	α² Libræ	N.	3	29.7	32.3	33.8	40.4	42.5	44.5	51.0	52.5	55.2	43 42.43	− 0.21	− 5.55	− 5.50	14 43 36.72	+ 0.03
	11	β Ursæ Minoris	N.	4	. .	. .	1.0	8.5	16.1	23.8	31.8	. .	. .	51 16.24	+ 0.16	. .	− 5.50	14 51 10.90	+ 0.33
	12	β Bootis	N.	3	49.5	52.9	54.8	3.1	5.7	8.4	16.6	18.5	21.9	57 5.71	− 0.11	. .	− 5.50	14 57 0.10	− 0.01
	13	48 Cephei, S. P.	N.	3	39.5	27.7	21.0	52.2	44.2	35.5	7.0	0.3	48.5	3 43.99	− 0.63	. .	− 5.51	3 3 37.85	+ 0.42
	14	β Libræ	N.	3	49.5	52.1	53.5	59.9	1.9	4.0	10.1	11.7	14.2	10 1.88	− 0.20	− 5.50	− 5.51	15 9 56.17	− 0.02
	15	μ Bootis	N.	3	22.0	25.1	27.1	34.8	37.5	40.1	48.0	49.8	53.1	19 37.50	− 0.12	− 5.43	− 5.51	15 19 31.87	− 0.08
	16	Saturn I, S.	N.	2	17.6	20.3	22.0	. .	. .	. .	38.1	40.7	43.5	10 30.37	− 0.21	. .	− 5.51	16 10 24.65	. .
	17	Saturn II, N.	N.	2.1	. .	. .	27.4	29.5	31.7	33.8	36.0	. .	. .	10 31.68	− 0.21	. .	− 5.51	16 10 25.96	. .
	18	α Andromedæ	A.	3	. .	. .	. .	48.3	50.5	53.8	57.6	59.4	2.2	1 48.28	− 0.10	−14.46	−14.46	0 1 33.72	0.00
28	19	Sun I, N.	E.	.	0.5	3.1	4.7	11.1	13.1	15.2	21.7	23.2	26.0	24 13.18	− 0.12	. .	−14.51	2 23 58.55	. .
	20	Sun II, S.	E.	.	15.0	16.4	20.5	22.7	24.9	27.0	29.1	33.3	35.0	26 24.88	− 0.12	. .	−14.51	2 26 10.25	. .
	21	Moon I, N.	N.	4.1	9.3	12.1	13.7	20.3	22.4	24.6	31.1	32.9	35.7	57 22.46	− 0.12	. .	−14.45	7 57 7.89	+70.87
	22	α Leonis	E.	.	23.2	25.8	27.4	33.6	35.7	37.8	44.2	45.6	48.3	1 35.73	− 0.12	−14.43	−14.43	10 1 21.18	− 0.01
	23	32 Ursæ Majoris	E.	.	. .	. .	30.1	35.1	40.0	45.1	50.0	. .	. .	8 40.06	+ 0.05	. .	−14.43	10 8 25.68	+ 0.08
29	24	Polaris	N.	2	. .	. .	. .	59.5	24.0	47.0	11.5	. .	. .	10 24.00	+ 2.76	. .	−14.12	1 10 12.64	+ 0.50
30	25	Sun I, N.	N.	.	27.2	29.8	31.4	37.7	39.9	41.9	48.3	50.0	52.5	31 39.86	− 0.07	. .	− 4.60	2 31 35.19	. .
	26	Sun II, S.	N.	.	39.0	41.8	43.3	49.5	51.6	53.8	0.1	2.0	4.4	33 51.72	− 0.07	. .	− 4.60	2 33 47.05	. .
	27	α Tauri	N.	3	21.6	24.2	25.8	32.2	34.5	36.4	42.7	44.4	47.1	28 34.32	− 0.07	−14.01	−14.08	4 28 20.17	− 0.07
	28	β Orionis	N.	1	13.0	15.4	16.8	23.1	25.1	27.2	33.5	35.0	37.3	8 25.16	− 0.09	−14.07	−14.08	5 8 10.99	0.00
	29	β Tauri	N.	1.3	. .	. .	. .	. .	. .	41.9	43.0	44.1	45.3	18 10.52	− 0.06	−14.13	−14.07	5 17 56.39	+ 0.05
	30	Venus I, S.	N.	3	6.0	8.7	10.5	17.2	19.6	21.8	28.8	30.5	33.2	42 19.59	− 0.07	. .	−14.07	5 42 5.45	+ 0.83
	31	Venus, N. C.	N.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	32	α Orionis	N.	3	2.9	5.5	7.0	13.1	15.2	17.3	23.5	25.0	27.6	48 15.23	− 0.08	−14.06	−14.07	5 48 1.08	− 0.01
	33	Moon I, N.	N.	2	38.2	41.0	42.4	48.8	51.0	53.1	59.4	1.1	3.7	56 50.97	− 0.08	. .	−14.02	9 56 36.87	+68.66
	34	γ¹ Leonis	N.	2	46.1	47.7	52.0	54.2	56.4	58.5	0.7	5.0	6.7	12 56.37	− 0.07	−14.03	−14.02	10 12 42.28	+ 0.03
	35	9 Draconis	N.	3	10.4	27.6	45.1	53.5	2.3	11.2	20.0	37.0	54.4	24 2.39	+ 0.16	. .	−14.02	10 23 48.43	− 0.26
	36	ρ Leonis	N.	2	. .	. .	19.0	. .	31.3	35.4	36.5	37.4	43.7	26 6.45	− 0.08	−13.94	−14.02	10 25 52.35	− 0.12
	37	Psyche	A.	4	27.0	29.9	31.4	37.6	39.2	41.4	47.5	49.0	51.6	31 39.40	− 0.09	. .	−13.97	14 31 25.34	. .
	38	α² Libræ	A.	4	38.1	40.6	42.4	48.7	50.8	52.8	59.3	0.9	3.5	43 50.79	− 0.09	−14.00	−13.97	14 43 36.73	+ 0.01
	39	β Ursæ Minoris	A.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	40	48 Cephei, S. P.	A.	4	47.0	36.1	29.0	0.8	52.0	42.7	14.3	8.1	55.5	3 51.72	− 0.24	. .	−13.97	3 3 37.51	+ 0.12
	41	μ¹ Bootis	A.	5	30.5	33.8	35.8	43.3	46.0	48.5	56.4	58.4	1.5	19 46.02	− 0.05	−13.99	−13.96	15 19 32.01	+ 0.03
	42	Saturn I	A.	2	38.0	. .	42.6	46.9	51.0	55.5	59.7	. .	4.0	9 51.10	− 0.09	. .	−13.96	16 9 37.05	. .
	43	Saturn II	A.	2	39.3	. .	43.8	48.2	52.4	56.7	1.1	. .	5.1	9 52.37	− 0.09	. .	−13.96	16 9 38.32	. .
	44	α Scorpii	A.	3	21.4	24.2	26.0	32.8	35.2	37.3	44.3	46.0	48.8	21 35.11	− 0.09	−13.95	−13.95	16 21 20.95	− 0.10
	45	α Andromedæ	A.	2	33.8	36.8	38.5	45.5	47.8	50.1	57.0	58.6	1.7	1 47.76	− 0.06	−13.92	−13.87	0 1 33.83	+ 0.05
	46	Polaris	N.	2	. .	53.0	38.0	3.0	28.0	50.0	15.5	. .	. .	10 27.23	+ 0.70	. .	−13.83	1 10 14.10	+ 1.67
	47	Mercury I, (center.)	N.	3	6.2	9.0	10.4	. .	. .	. .	26.9	28.4	31.0	42 18.65	− 0.09	. .	−13.82	1 42 4.74	− 0.02
	48	Mercury II	N.	3	. .	. .	14.6	16.7	18.7	20.8	23.0	. .	. .	42 18.76	− 0.09	. .	−13.82	1 42 4.85	− 0.18

3.5.11.13. B and D in N. P. D.
9.37.44. Wire A used.
20. Seems one rev. too small.
29. Last wire of set E in R. A.
36. Da, E, and VII in R. A.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	195 28	1.7	3.1	3.1	29.0	24	005	. .	990	845	762	10.3	195 31 52.8	. .	+ 16.1	35 34 12.3	— 0.6
2	29 22	3.9	1.6	29.8	0.7	26	642	600	. .	487	490	10.3	29 25 13.4	. .	+ 32.7	80 32 7.3	— 1.9
3	320 30	6.0	4.4	5.0	5.0	26	018	010	. .	025	047	10.3	320 33 18.1	547	— 47.7	11 38 51.6	— 2.1
4	211 34	3.1	5.2	4.5	2.2	27	920	920	915	885	807	10.3	211 36 50.1	. .	+ 35.7	19 28 55.4	— 1.4
5	293 8	7.9	6.7	6.7	7.5	24	427	340	. .	411	291	10.3	293 11 40.9	. .	— 2 14.8	344 15 47.3	+ 1.8
6	43 40	5.7	3.9	1.6	3.8	28	060	008	. .	869	869	10.3	43 42 49.7	. .	+ 55.6	94 50 6.5	— 1.9
7	307 28	5.4	4.3	4.2	5.1	26	832	812	847	830	796	10.3	307 31 5.8	564	— 1 15.7	358 36 11.3	— 1.6
8	191 2	6.1	6.2	4.8	3.2	29	030	. .	. .	835	795	10.3	191 4 33.0	. .	+ 11.4	40 1 36.8	+ 0.4
9	52 4	5.8	4.3	2.0	3.2	30	. .	820	. .	745	. .	10.3	52 8 40.3	570	+ 1 14.9	103 16 16.4	— 3.0
10	54 18	7.5	5.7	3.7	4.8	24	071	091	. .	019	942	10.3	54 21 47.9	578	+ 1 21.3	105 29 30.4	— 0.8
11	324 8	7.2	3.9	5.7	6.2	20	. .	. .	842	863	838	10.3	324 12 36.3	. .	— 42.1	15 18 15.4	— 2.9
12	357 56	10.7	6.6	6.3	6.9	27	. .	425	. .	255	. .	10.3	357 58 55.5	. .	— 2.0	49 5 14.7	— 3.1
13	296 6	5.2	3.5	4.5	5.0	22	302	303	. .	302	220	10.3	296 10 15.3	. .	— 1 58.7	347 14 37.8	+ 0.2
14	47 42	7.0	5.1	2.9	4.3	22	578	596	. .	444	380	10.3	47 46 11.9	592	+ 1 4.5	98 53 37.6	— 2.1
15	1 0	7.3	3.9	3.2	4.8	26	730	636	. .	570	535	10.3	1 3 9.5	. .	+ 1.0	52 9 31.7	— 1.3
16	57 42	5.4	3.6	1.8	3.2	22	230	. .	. .	. .	160	10.3	57 46 17.7	. .	+ 1 33.0	108 54 11.9	— 0.8
17	57 42	5.4	3.6	1.8	3.2	23	. .	440	. .	285	. .	10.3	57 46 0.0	604	+ 1 33.0	108 53 54.2	— 0.8
18	10 28	10 8.0	5.0	5.0	6.5	23	. .	. .	. .	551	546	10.3	10 31 53.9	. .	+ 10.7	61 38 25.8	— 0.6
19	24 10	10 10.0	8.4	7.0	7.8	24	358	543	. .	. .	. .	10.3	24 13 39.5	. .	+ 25.4	75 20 26.1	— 3.6
20	24 42	10 8.9	7.0	6.0	6.0	24	. .	. .	. .	130	205	10.3	24 45 28.5	431	+ 26.1	75 52 15.8	— 3.7
21	21 11	12 15.6	13.0	7.3	12.3	25	765	655	675	620	566	10.3	21 14 16.6	420	+ 21.9	72 20 59.7	
22																	
23	333 4	6.7	5.4	5.2	4.4	22	. .	. .	898	862	960	10.3	333 8 5.0	. .	— 29.0	24 13 57.2	— 0.6
24	310 14	7.4	6.4	5.3	6.5	21	. .	134	184	. .	. .	11.0	310 18 31.6	395	— 1 5.9	1 23 46.9	— 0.8
25	23 32	11.6	10.8	8.0	8.2	19	870	835	. .	. .	. .	11.0	23 36 49.0	. .	+ 24.1	74 43 34.3	— 3.5
26	24 4	6.7	5.5	2.5	2.3	21	. .	. .	. .	137	130	11.0	24 8 33.6	315	+ 24.7	75 15 19.5	— 3.6
27	22 36	11.5	8.4	5.9	7.1	27	. .	372	. .	230	. .	11.0	22 38 56.0	284	+ 22.8	73 45 40.0	— 0.4
28	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	. . . .	270			
29	10 20	10.2	7.8	5.3	6.9	23	105	078	. .	. .	. .	11.0	10 24 2.2	. .	+ 10.0	61 30 33.4	— 0.2
30	12 16	13.0	10.0	7.6	8.1	22	. .	982	. .	854	. .	11.0	12 20 1.6	. .	+ 11.9	63 26 34.7	— 2.4
31	12 16	13.0	10.0	7.6	8.1	24	. .	. .	354	. .	. .	11.0	12 19 39.5	. .	+ 11.9	63 26 12.6	— 2.4
32	31 26	9.7	6.8	3.1	4.9	21	379	272	. .	250	218	11.0	31 30 30.1	261	+ 33.3	82 37 24.6	— 0.9
33	27 3	12 1.7	1.2	26.7	27.6	24	395	210	030	870	762	10.6	27 6 38.8	343	+ 28.3	78 13 28.3	
34	18 20	10 10.6	8.4	5.1	4.9	27	. .	375	. .	265	. .	10.6	18 22 56.3	. .	+ 18.4	69 29 35.9	— 1.0
35	322 28	11.5	8.8	7.6	7.4	28	285	256	. .	220	175	10.6	322 30 40.9	. .	— 42.5	13 36 19.6	— 1.8
36	28 50	9.0	6.9	4.1	4.1	22	. .	. .	. .	. .	510	10.6	28 54 9.8	362	+ 30.7	80 1 1.7	— 2.1
37	49 20	10 17.2	16.0	14.0	12.0	25	?645	449	. .	335	149	10.6	49 25 52.1	456	+ 1 6.1	100 33 19.4	— 3.0
38	54 18	10 16.0	14.5	11.0	10.5	23	284	301	. .	156	120	10.6	54 21 53.0	. .	+ 1 18.4	105 29 32.9	+ 1.6
39	324 8	10 4.6	2.1	2.5	2.2	21	371	314	. .	220	325	10.6	324 12 34.4	441	— 40.8	15 18 14.8	— 2.6
40	296 6	10 4.5	3.0	3.5	2.7	22	579	741	. .	599	. .	10.6	296 10 10.0	442	— 1 54.7	347 14 36.5	— 0.3
41	0 58	10 0.9	29.0	27.0	26.5	19	264	229	. .	100	061	10.6	1 3 10.1	440	+ 1.0	52 9 32.3	0.0
42																	
43																	
44	64 56	10 6.5	5.5	3.0	3.2	34	. .	382	. .	310	. .	10.6	64 59 45.2	460	+ 2 1.3	116 8 7.7	+ 1.8
45	10 28	10 10.5	8.6	7.0	7.0	23	484	399	. .	299	279	10.6	10 31 55.9	463	+ 10.6	61 38 27.7	+ 1.3
46	310 14	9.4	7.5	7.3	7.3	21	010	041	932	946	009	10.8	310 18 32.7	. .	— 1 6.7	1 23 47.2	— 0.8
47	30 16	12.7	11.0	8.0	7.9	26	565	515	. .	576	565	10.8	30 19 5.5	. .	+ 33.1	81 25 59.8	— 3.6
48																	

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	′ ″
21	— 21 16.4	+ 16 11.1
33	— 26 45.0	+ 16 8.7

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan'us Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
May 1	1	Sun I, N. . . .	N.	2	25.3	28.1	29.5	36.0	38.1	39.2	46.6	48.1	0.8	55 38.09	− 0.09	. .	−13.81	2 35 24.19	. .
	2	Sun II, S. . . .	N.	2	37.3	40.2	41.6	48.0	50.3	52.3	58.6	0.2	2.8	37 50.14	− 0.09	. .	−13.81	2 37 36.24	. .
	3	ε Tauri	N.	3	55.0	57.4	59.2	5.7	7.8	10.0	16.5	18.2	20.8	21 7.84	− 0.09	−13.78	−13.79	4 20 53.96	− 0.01
	4	α Tauri	N.	3	21.4	24.0	25.5	32.0	34.1	36.2	42.5	44.2	46.8	28 34.09	− 0.09	−13.76	−13.79	4 28 20.21	− 0.03
	5	β Tauri	N.	3	56.3	59.0	0.9	. .	10.3	. .	19.5	21.2	24.4	3 10.23	− 0.09	−13.82	−13.78	5 17 56.36	+ 0.03
	6	δ Orionis . . .	N.	3	16.8	20.9	25.0	27.1	29.1	31.0	33.1	37.3	41.3	25 29.09	− 0.09	−13.75	−13.77	5 25 15.21	− 0.04
	7	ε Orionis . . .	N.	3	32 1	34.5	36.0	42.2	44.2	46.2	52.4	53.9	56.6	29 44.23	− 0.09	−13.75	−13.77	5 29 30.37	− 0.01
	8	Venus I, S. . .	N.	3	35:7	38.5	40.4	47.2	49.4	51.7	58.5	0.3	3.1	46 49.42	− 0.09	. .	−13.77	5 46 35.56	+ 0.84
	9	Venus, N. C. . .	N.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . . .	. .
	10	γ¹ Leonis, (R.) . .	N.	4	42.9	45.6	47.3	53.8	56.0	58.1	4.6	6.2	9.0	12 55.94	+ 0.09	. .	−13.72	10 12 42.31	+ 0.07
	11	l Leonis	N.	3	21.3	24.0	25.5	29.6	33.8	38.0	42.0	43.7	46.7	42 33.79	− 0.09	−13.71	−13.71	10 42 19.99	+ 0.07
	12	Moon I, N. . .	N.	3	32.5	35.1	36.7	43.1	45.1	47.2	53.6	55.2	57.7	53 45.13	− 0.09	. .	−13.71	10 53 31.33	+67.50
	13	δ Crateris . . .	N.	3	47.0	49.7	51.3	57.7	59.7	1.8	8.2	9.7	12.4	12 59.72	− 0.09	−13.73	−13.71	11 12 45.92	+ 0.02
	14	λ Draconis, (R.) . .	N.	3	. .	. .	35.3	41.2	47.1	52.9	59.1	. .	. .	23 47.12	+ 0.40	. .	−13.70	11 23 33.82	+ 0.42
	15	υ Leonis	N.	3	14.3	16.8	18.3	24.4	26.5	28.5	34.7	36.1	38.7	30 26.48	− 0.09	−13.69	−13.70	11 30 12.69	− 0.02
	16	ο Virginis . . .	N.	2	31.8	34.3	35.9	42.1	44.2	46.3	52.6	54.0	56.6	58 44.20	− 0.09	−13.73	−13.70	11 58 30.41	− 0.03
	17	4 Draconis . . .	N.	4	. .	. .	55.0	5.0	14.9	25.1	35.3	. .	. .	6 15.06	− 0.01	. .	−13.69	12 6 1.36	− 0.19
	18	η Virginis . . .	N.	4	12.1	14.8	16.3	22.4	24.4	26.4	32.6	34.0	36.7	13 24.41	− 0.09	−13.71	−13.69	12 13 10.63	+ 0.01
	19	κ Draconis . . .	N.	4	29.0	36.7	41.2	0.0	5.8	12.0	30.4	34.9	42.6	28 5.84	− 0.07	. .	−13.69	12 28 52.08	+ 0.04
	20	21 Cassiopeæ, S. P. .	N.	2	56.4	46.9	41.5	18.6	11.5	4.1	41.3	35.8	26.5	36 11.40	− 0.03	. .	−13.69	0 35 57.68	+ 0.43
	21	32¹ Camelopardalis .	N.	2	. .	. .	43.0	2.8	23.5	42.7	2.1	. .	. .	48 22.82	+ 0.14	. .	−13.69	12 48 9.27	− 7.70
	22	32² Camelopardalis .	N.	.	. .	. .	50.0	10.1	30.7	50.3	10.8	. .	. .	48 30.38	+ 0.14	. .	−13.69	12 48 16.83	− 0.14
	23	Polaris, S. P., (R.) .	N.	4	. .	. .	. .	. .	. .	. .	. .	56.0	54.0	10 30.35	− 5.32	. .	−13.68	1 10 11.35	− 1.25
	24	Polaris, S. P. . .	N.	5	. .	. .	15.0	51.0	27.5	5.5	40.0	. .	. .	10 28.12	− 0.84	. .	−13.68	1 10 13.60	+ 1.00
	25	η Ursæ Majoris, (R.)	N.	2	16.6	20.5	22.8	. .	. .	. .	. .	. .	. .	42 35.56	+ 0.19	. .	−13.68	13 42 22.07	− 0.15
2	26	Sun I, N. . . .	E.	.	14.5	17.1	18.8	25.3	27.3	29.4	35.9	37.3	39.9	39 27.28	− 0.03	. .	−13.60	2 39 13.55	. .
	27	Sun II, S. . . .	E.	.	26.9	29.6	31.0	37.4	39.6	41.6	48.1	49.6	52.3	41 39.57	− 0.03	. .	−13.60	2 41 25.94	. .
4	28	γ¹ Leonis, (R.) . .	N.	3	42.2	44.8	46.4	53.0	55.1	57.3	3.9	5.3	8.2	12 55.13	+ 0.01	. .	−12.99	10 12 42.15	− 0.04
	29	9 Draconis, (R.) . .	N.	3	. .	. .	. .	. .	. .	. .	36.1	42.1	. .	24 1.10	+ 0.26	. .	−12.99	10 24 48.37	− 0.02
	30	l Leonis	N.	4	20.5	23.0	24.7	30.8	33.0	35.1	41.4	42.8	45.4	42 32.97	− 0.05	−12.97	−12.99	10 42 19.93	+ 0.05
	31	α Ursæ Majoris, (R.)	N.	4	20.9	26.3	29.6	43.0	47.3	51.6	4.9	8.2	13.8	55 47.29	+ 0.11	. .	−12.99	10 55 34.41	+ 0.07
	32	δ Leonis	N.	4	5.8	8.7	10.3	16.8	19.1	21.3	27.8	29.4	33.2	7 19.16	− 0.05	−13.01	−12.99	11 7 6.12	0.00
	33	τ Leonis	N.	4	10.8	13.4	15.0	21.0	23.1	25.2	31.3	32.8	35.4	24 23.11	− 0.06	−12.95	−12.98	11 21 10.07	− 0.02
	34	β Corvi	N.	3	. .	38.0	40.2	42.4	44.5	46.7	51.1	52.8	55.7	27 42.35	− 0.07	−13.06	−12.98	12 27 29.30	+ 0.14
	35	21 Cassiopeæ, S. P. .	N.	3	. .	. .	26.0	18.1	10.8	3.4	56.2	. .	. .	37 10.90	− 0.16	. .	−12.97	0 36 57.77	+ 0.36
	36	Polaris, S. P. . .	N.	4	51.5	7.0	3.0	17.0	53.0	29.0	6.5	41.0	51.0	10 28.99	− 1.20	. .	−12.97	1 10 14.82	+ 0.98
	37	Moon I, N. . .	N.	3	45.2	48.0	49.4	55.7	57.8	59.9	6.2	7.8	10.4	36 57.82	− 0.06	. .	−12.97	13 36 44.79	+65.83
	38	η Bootis	N.	4	25.5	28.3	30.0	36.3	38.5	40.6	47.1	48.7	51.4	48 38.49	− 0.05	−12.89	−12.96	13 48 25.48	− 0.10
7	39	Polaris	N.	2	38.0	48.0	49.0	35.0	1.5	. .	. .	. .	. .	9 23.75	+ 0.31	. .	−12.66	1 10 11.40	− 4.47
8	40	κ Ophiuchi . . .	N.	4	27.1	29.5	31.3	37.5	39.5	41.5	47.8	49.2	52.0	50 39.49	− 0.13	−12.42	−12.50	16 50 26.86	− 0.05
	41	α Herculis . . .	A.	.	. .	. .	. .	. .	. .	. .	. .	. .	4.7	7 52.07	. . .	. .	. .	. . . . .	. .
	42	Moon II, S. . .	A.	3	49.1	52.1	53.6	0.4	2.5	4.7	11.2	12.9	15.8	14 2.48	− 0.15	. .	−12.49	17 14 49.84	−66.21
	43	μ Herculis . . .	A.	4	17.9	20.7	22.4	29.6	31.8	34.1	40.8	42.6	45.6	40 31.72	− 0.12	−12.42	−12.49	17 40 19.11	− 0.07
	44	γ² Sagittarii . . .	A.	4	20.1	23.1	24.8	31.6	34.4	36.8	43.8	45.5	48.5	56 34.29	− 0.17	−12.56	−12.49	17 56 21.63	+ 0.04
	45	μ Sagittarii . . .	A.	3	53.4	56.2	57.8	4.2	6.5	8.6	15.0	16.9	19.7	5 6.48	− 0.16	−12.52	−12.49	18 5 53.83	+ 0.01
	46	δ Ursæ Minoris . .	A.	.	. .	. .	11.7	48.5	23.0	55.0	28.9	. .	. .	14 21.50	+ 0.06	. .	−12.49	18 14 9.17	+ 0.03
	47	1 Aquilæ . . .	A.	.	. .	11.3	13.6	15.7	17.5	19.7	23.8	25.3	27.8	27 15.55	− 0.14	−12.54	−12.48	18 27 2.93	+ 0.10
	48	α Lyræ	A.	2	26.3	29.6	31.7	39.3	42.1	44.7	52.7	54.4	57.7	31 42.06	− 0.11	−12.25	−12.48	18 31 29.47	− 0.23
	49	51 Cephei, S. P. .	A.	3	. .	. .	4.0	22.5	38.0	58.5	14.0	. .	. .	36 39.56	− 0.32	. .	−12.48	6 36 26.76	+ 0.28
	50	Polaris	E.	.	. .	. .	35.5	57.0	25.0	. .	. .	. .	. .	9 22.87	+ 7.14	. .	−12.47	1 9 17.64	+ 1.17

19.21.22.23.29. Bisections at sets B and D.
29. R. A. observed over wires D_1 and D_2.
35. Wires VI, V, III, II.
41. Wire B. used.
50. Transit seems recorded 1^m wrong.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Misceilan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	23 14	10 9.3	7.5	5.5	5.6	20	246	290	. .	. .	. .	10.8	23 18 45.2	. .	+ 24.2	74 25 30.6	− 3.5
2	23 46	10 11.9	9.8	7.5	7.4	21	.	. . .	. .	120	082	10.8	23 50 29.0	408	+ 24.8	74 57 15.0	− 3.5
3	19 56	11.8	9.8	6.9	8.1	21	825	775	. .	. .	. .	10.8	20 0 20.1	385	+ 20.4	71 7 1.7	− 2.2
4	22 36	10.6	8.2	5.2	6.1	27	432	442	. .	300	315	10.8	22 38 55.4	. .	+ 23.4	73 45 40.0	− 0.4
5	10 20	6.7	4.3	3.2	3.8	23	410	360	. .	250	214	10.8	10 24 0.8	369	+ 10.2	61 30 32.2	− 1.4
6	39 14	9.6	7.3	4.0	5.1	26	962	904	. .	820	775	10.8	39 17 4.1	. .	+ 45.7	90 24 11.0	− 1.4
7	40 6	8.0	5.9	3.5	3.6	21	812	815	. .	670	647	10.8	40 10 23.7	380	+ 47.2	91 17 32.1	− 1.7
8	12 14	7.5	5.2	3.5	3.3	27	335	. .	. .	. .	268	10.8	12 16 59.4	373	+ 12.1	63 23 32.7	− 2.4
9	12 14	7.5	5.2	3.5	3.3	28	. .	831	. .	709	. .	10.8	12 16 36.7	. .	+ 12.1	63 23 10.0	− 2.4
16	161 34	5.6	5.4	2.9	1.1	27	125	075	. .	988	941	10.6	161 37 3.9	444	− 18.8	69 29 36.1	− 0.7
11	27 36	11.3	9.7	6.8	6.9	28	275	198	. .	120	120	10.6	27 38 41.7	. .	+ 29.7	78 45 32.6	− 1.3
12	31 12	8 27.5	25.0	21.6	21.2	25	945	740	650	415	261	10.6	31 16 5.9	460	+ 34.5	82 23 1.6	
13	52 52	9.2	8.2	4.3	5.0	21	312	280	. .	216	140	10.6	52 26 29.6	. .	+ 1 15.2	104 4 6.0	− 1.5
14	211 6	1.3	3.9	1.9	29.3	25	. .	561	485	465	. .	10.6	211 9 29.7	. .	+ 34.4	19 56 17.1	− 2.3
15	38 56	9.0	6.8	3.9	4.1	28	251	177	. .	082	051	10.6	38 58 44.9	468	+ 46.1	90 5 52.2	− 0.7
16	29 22	9.6	7.1	3.8	4.7	26	. .	. .	. .	. .	135	10.6	29 25 14.1	470	+ 32.1	80 32 7.4	− 1.5
17	320 30	7.3	6.1	5.5	5.2	26	. .	116	088	074	. .	10.6	320 33 16.3	. .	− 46.9	11 38 50.6	− 2.2
18	38 46	8.0	6.5	3.2	3.3	27	336	300	. .	160	129	10.6	38 48 59.5	. .	+ 45.8	89 56 6.5	− 0.9
19	328 20	7.6	5.3	4.5	4.5	26	755	736	. .	667	667	10.6	328 23 7.5	470	− 34.9	19 28 53.8	− 2.0
20	293 8	6.0	5.5	4.5	4.7	24	. .	685	835	721	. .	10.6	293 11 36.8	. .	− 2 12.2	344 15 45.8	+ 1.1
21	314 44	6.5	5.5	4.5	4.0	30	075	. .	. .	. .	990	10.6	314 46 17.6	. .	− 57.5	5 51 41.3	−21.6
22	314 44	6.5	5.5	4.5	4.0	28	770	. .	810	. .	820	10.6	314 46 36.2	477	− 57.5	5 51 59.9	− 3.0
23	232 26	2.5	4.7	3.3	0.8	27	. .	702	730	761	845	10.6	232 28 55.9	. .	+ 1 14.3	358 36 11.0	− 0.8
24	307 28	4.0	2.9	1.0	2.5	27	090	116	084	111	069	10.6	307 31 4.0	485	− 1 14.3	358 36 10.9	− 0.9
25	191 2	3.8	4.4	1.7	29.4	29	. .	100	030	956	. .	10.6	191 4 34.7	. .	+ 11.2	40 1 35.3	0.0
26	22 58	10 8.0	6.0	4.0	3.4	27	642	602	. .	. .	. .	10.9	23 0 54.6	. .	+ 23.6	74 7 39.4	− 3.0
27	23 30	10 7.6	5.5	2.6	2.5	28	. .	. .	. .	585	440	10.9	23 32 40.4	365	+ 24.3	74 39 25.9	− 3.5
28	161 34	7.6	7.8	5.6	3.8	27	000	990	. .	890	872	11.3	161 37 3.6	480	− 19.0	69 29 36.6	0.0
29	217 26	5.0	5.3	3.7	1.2	26	. .	. .	240	190	178	11.3	217 29 17.0	. .	+ 43.8	13 36 20.4	− 0.6
30	27 36	7.8	6.1	3.7	4.3	28	. .	575	. .	460	. .	11.3	27 38 40.4	. .	+ 29.9	78 45 31.5	− 2.2
31	203 30	4.0	5.6	4.6	1.5	23	985	050	. .	860	800	11.3	203 33 51.1	488	+ 25.0	27 32 5.1	− 1.3
32	17 34	5.9	3.1	0.9	1.9	21	. .	236	. .	110	. .	11.3	17 38 35.2	. .	+ 18.2	68 45 14.6	− 2.6
33	35 14	4.3	2.8	1.0	0.7	23	. .	120	. .	965	. .	11.3	35 18 7.4	. .	+ 40.5	86 25 9.1	− 1.7
34	61 28	4.8	4.7	2.3	2.1	23	. .	. .	. .	160	122	11.3	61 32 3.3	492	+ 1 45.2	112 40 9.7	− 2.5
35	293 8	4.1	3.7	4.1	4.2	24	891	950	. .	872	751	11.3	293 11 36.9	. .	− 2 12.8	344 15 45.3	+ 1.2
36	307 28	1.5	0.7	0.0	0.7	27	335	342	328	340	315	11.3	307 31 3.0	496	− 1 14.5	358 36 9.7	− 1.3
37	45 8	10 7.2	4.8	2.1	3.6	26	851	705	364	010	892	11.3	45 11 14.3	500	+ 57.7	96 18 33.2	
38	19 46	6.9	5.8	4.0	3.6	24	652	600	. .	485	494	11.3	19 49 41.5	. .	+ 20.7	70 56 23.4	− 1.5
39	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	504			
40	29 14	5.0	2.5	2.0	2.3	23	020	980	. .	690	811	10.6	29 18 8.5	589	+ 32.9	80 25 2.6	− 0.2
41																	
42	58 6	10 2.0	0.0	28.5	0.0	24	852	910	906	852	966	10.6	58 7 11.2	590	+ 1 33.9	109 15 6.3	
43	11 2	4.4	2.5	3.2	2.4	25	. .	. .	. .	399	280	10.6	11 5 29.8	598	+ 11.5	62 12 2.5	− 1.1
44	69 12	10 2.5	0.2	29.4	29.0	22	. .	. .	. .	499	511	10.6	69 16 15.4	600	+ 2 34.0	120 25 10.6	− 1.4
45	59 52	2.5	0.5	29.5	0.0	18	. .	816	. .	700	. .	10.6	59 57 13.4	. .	+ 1 41.2	111 5 15.8	− 2.2
46	312 14	10 1.9	29.5	1.0	1.2	21	660	. .	740	. .	770	10.6	312 18 28.2	. .	− 1 4.5	3 23 44.9	− 2.6
47	47 8	10 1.3	29.2	29.8	28.6	21	750	693	. .	631	568	10.6	47 12 30.2	601	+ 1 3.4	98 19 54.8	− 2.3
48																	
49	306 6	9 28.0	26.1	28.3	28.4	25	621	567	621	593	528	10.6	306 9 32.2	603	− 1 20.3	357 14 33.1	− 2.0
50	310 14	7.8	6.8	7.7	7.6	20	900	830	750	. .	. .	11.0	310 18 35.6	. .	− 1 7.0	1 23 49.8	− 0.3

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
10	30.054	64.1	69.0
34	29.948	57.1	68.0

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
12	− 30 23.8	+ 16 5.4
37	− 40 50.0	+ 15.46.9
42	− 46 59.4	− 15 9.2

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan'us Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
May 9	1	Sun, S.	E.	.	..	..	..	..	..	..	..	..	..	. .	. .	. .	. .	. . .	. .
	2	Sun II, N.	E.	.	29.0	31.3	32.9	39.4	41.2	43.3	49.9	51.7	54.2	7 41.43	− 0.17	. .	−12.47	3 7 28.79	−66.77
10	3	γ Pegasi	N.	3	..	..	36.4	38.4	40.6	42.7	46.9	48.5	51.0	6 38.46	− 0.18	−12.03	−12.05	0 6 26.20	− 0.07
	4	Polaris, (R.)	N.	2	..	..	..	..	..	..	..	..	..	. .	. .	. .	. .	. . .	. .
	5	Polaris	N.	1.3	..	..	..	..	26.0	47.0	..	14.0	47.0	10 26.52	+ 5.85	. .	−12.05	1 10 20.30	+ 2.70
11	6	Sun I, S.	N.	3	3.6	6.4	8.0	14.5	16.6	18.7	25.1	27.0	29.2	14 16.57	− 0.18	. .	−12.03	3 14 4.36	. .
	7	Sun II, N.	N.	3	17.3	19.9	21.6	28.1	30.2	32.1	38.7	40.4	43.0	16 30.14	− 0.18	. .	−12.03	3 16 17.93	. .
	8	α Tauri	N.	1	19.6	23.8	28.1	30.2	32.4	34.6	36.7	40.9	45.1	28 32.38	− 0.18	−11.97	−12.03	4 12 20.17	− 0.06
	9	α Aurigæ, (R.)	N.	2	..	1.8	4.5	7.5	10.5	13.3	19.0	21.6	25.1	7 7.53	+ 0.12	. .	−12.03	5 6 55.62	0.00
	10	β Tauri	N.	2	54.5	57.5	59.1	6.3	8.4	10.7	17.6	19.4	22.1	18 8.40	− 0.14	−11.99	−12.03	5 17 56.23	− 0.05
	11	ε Orionis	N.	1.2	30.2	32.9	38.5	40.4	42.5	44.5	46.5	52.1	54.7	29 42.48	− 0.23	−11.91	−12.02	5 29 30.23	− 0.10
	12	Venus I, S.	N.	2	54.7	57.5	59.3	6.1	8.5	10.8	17.5	19.2	22.0	30 8.40	− 0.15	. .	−12.01	6 29 56.24	+ 0.94
	13	Venus, N.	N.	.	..	..	..	..	..	..	..	..	..	. .	. .	. .	. .	. . .	. .
	14	9 Draconis, (R.)	N.	3	6.7	17.5	41.3	49.7	..	..	..	..	50.2	58.50	+ 0.83	. .	−11.98	10 23 47.35	− 0.50
	15	α Ursæ Majoris, (R.)	N.	3	19.1	24.7	28.0	41.1	45.8	50.2	3.3	6.7	12.2	55 45.68	+ 0.33	. .	−11.97	10 55 34.04	− 0.07
	16	δ Leonis, (R.)	N.	3	4.7	7.5	9.1	13.6	20.0	22.3	26.6	28.3	31.1	7 17.89	− 0.02	. .	−11.97	11 7 5.90	− 0.14
	17	λ Draconis	N.	4	..	..	32.8	38.6	44.5	50.3	56.7	..	..	23 44.58	+ 0.20	. .	−11.97	11 23 32.81	− 0.13
	18	υ Leonis	N.	2	12.6	15.0	16.6	22.7	24.8	26.7	33.0	34.4	37.0	30 24.76	− 0.22	−11.93	−11.97	11 30 12.57	− 0.05
	19	β Leonis, (R.)	N.	.	20.0	22.5	24.0	30.4	32.6	34.7	41.0	42.5	45.1	42 32.53	− 0.04	. .	−11.96	11 42 20.53	− 0.06
	20	γ Ursæ Majoris	N.	3	22.2	26.4	..	..	..	47.6	52.8	..	8.6	47 5.52	− 0.01	. .	−11.96	11 46 53.55	+ 0.03
	21	ο Virginis	N.	4	30.0	32.6	34.0	40.3	42.4	44.4	50.5	52.1	54.8	58 42.35	− 0.20	. .	−11.96	11 58 30.19	− 0.16
	22	4 Draconis	N.	.	11.2	23.6	31.3	1.8	12.1	21.9	52.2	59.5	12.5	6 11.79	+ 0.51	. .	−11.96	12 6 0.34	− 0.49
	23	η Virginis, (R.)	N.	2	..	18.5	20.6	22.7	24.6	26.6	30.7	32.3	34.8	13 22.59	− 0.12	. .	−11.95	12 13 10.51	− 0.05
	24	β Corvi	N.	3	28.1	31.0	32.6	39.2	41.5	43.6	51.3	52.0	54.8	27 41.46	− 0.29	−12.00	−11.96	12 27 29.21	+ 0.10
	25	α Cassiopeæ, S. P.	N.	1	36.4	31.5	28.8	18.1	14.3	10.6	0.0	57.1	52.5	33 14.37	− 0.43	. .	−11.96	0 33 1.98	+ 0.26
	26	32¹ Camelopardalis	N.	3	..	..	38.1	57.4	18.4	..	59.0	..	..	48 17.26	+ 1.55	. .	−11.95	12 48 6.86	− 8.85
	27	32² Camelopardalis	N.	.	..	..	44.8	5.6	26.1	45.7	6.2	..	..	48 25.68	+ 1.55	. .	−11.95	12 48 15.28	− 0.46
	28	Polaris, S. P., (R.)	N.	4	..	..	..	..	..	..	50.0	..	19.0	10 40.37	− 9.77	. .	−11.95	1 10 18.65	+ 0.55
	29	Polaris, S. P.	N.	3	..	..	26.0	2.0	37.5	16.0	..	..	..	10 38.60	− 6.29	. .	−11.95	1 10 20.36	+ 2.26
	30	α Virginis	N.	3	16.0	18.7	20.3	26.3	28.5	30.5	36.8	38.3	40.9	18 28.48	− 0.26	−11.94	−11.95	13 18 16.27	0.00
	31	η Ursæ Majoris	N.	1.3	14.8	18.8	21.1	30.3	33.8	36.9	46.5	49.0	52.7	42 33.77	− 0.20	. .	−11.95	13 42 21.62	− 0.23
	32	50 Cassiopeæ, S. P.	N.	2	..	..	37.5	30.5	24.0	17.8	11.2	..	..	52 24.20	− 0.65	. .	−11.94	1 52 11.61	+ 0.04
	33	α Draconis, (R.)	N.	3	39.7	43.3	53.2	58.0	2.6	7.1	12.3	21.9	25.7	0 2.64	+ 0.39	. .	−11.94	14 0 51.09	− 0.04
	34	Psyche	N.	2	57.0	59.9	1.3	7.3	9.3	11.4	17.7	19.1	21.9	23 9.43	− 0.25	. .	−11.94	14 22 57.24	. .
	35	α² Libræ	N.	.	36.3	39.0	40.5	46.9	49.0	51.2	57.5	59.0	1.7	43 49.01	− 0.27	−12.02	−11.93	14 43 36.81	+ 0.01
	36	β Ursæ Minoris, (R.)	N.	3	..	..	..	..	..	..	52.7	58.4	8.4	51 21.80	+ 0.75	. .	−11.93	14 51 10.62	+ 0.09
	37	β Libræ, (R.)	N.	3	58.6	0.1	4.1	6.3	8.4	10.5	12.6	16.6	18.2	10 8.38	− 0.16	. .	−11.93	15 9 56.20	− 0.04
	38	μ Bootis	N.	3	28.8	32.0	33.9	41.5	44.2	46.7	54.4	56.3	59.7	44.17	− 0.11	−12.00	−11.93	15 19 32.13	+ 0.07
	39	Cybele	N.	2.1	..	8.3	10.2	12.3	14.5	16.6	20.8	22.4	25.0	35 12.39	− 0.26	. .	−11.93	15 35 0.20	. .
	40	Juno	N.	2.1	47.1	50.0	51.8	57.6	59.7	1.6	7.7	9.4	12.0	39 59.65	− 0.23	. .	−11.93	15 39 47.49	. .
	41	Saturn I, S.	N.	3	27.8	30.6	32.3	..	..	..	49.5	51.1	53.7	6 40.83	− 0.28	. .	−11.94	16 6 28.61	. .
	42	Saturn II, N.	N.	3	..	..	37.9	40.0	42.0	44.1	46.4	..	..	6 42.08	− 0.28	. .	−11.94	16 6 29.86	. .
	43	Moon II, N.	N.	.	..	55.7	57.8	0.1	2.3	4.5	8.8	10.4	13.2	54 0.04	− 0.28	. .	−11.88	19 53 47.88	−64.64
	44	λ Ursæ Minoris	N.	4	..	..	..	..	..	23.5	53.0	..	..	56 47.90	+ 7.58	. .	−11.88	19 56 43.60	− 4.38
	45	Polaris	A.	1.2	..	46.0	36.0	2.0	26.0	47.0	9.0	55.0	47.0	10 23.61	+ 7.51	. .	−11.88	1 10 19.24	+ 1.14
12	46	Sun I, N.	A.	3	58.4	1.3	2.8	9.3	11.6	13.6	20.0	21.8	24.4	18 11.47	− 0.18	. .	−11.88	3 17 59.41	. .
	47	Sun II, S.	A.	3	12.4	15.0	16.6	23.1	25.1	27.5	34.0	35.5	38.3	20 25.28	− 0.18	. .	−11.88	3 20 13.22	. .
13	48	Moon II	E.	.	57.0	59.7	1.3	7.8	10.0	12.0	18.4	20.2	23.0	33 9.93	− 0.25	. .	−11.71	21 32 57.97	−63.13
	49	Polaris	N.	3	42.5	..	35.0	59.5	23.0	47.0	9.5	..	..	10 22.38	+ 8.59	. .	−11.63	1 10 19.34	+ 0.26
	50	β Arietis	N.	3	..	..	30.4	32.4	34.6	36.8	41.1	42.7	45.4	47 32.44	− 0.14	−11.63	−11.62	1 47 20.68	+ 0.02

4. Bisections made at 1ʰ 1ᵐ 15ˢ and 1ʰ 2ᵐ 30ˢ clock time.
5. Weight 2 to 3d wire.
14. R. A. over wires B_1, B_2, C_1, C_3, and D_3.
14.17.22.36. Bisections at sets B and D.
16. Last micrometer reading 15ˢ after passing VII.
20. R. A. observed over D_2, D_3, E_1, E_3, and VII.
28. Double weight to D_1.
34. Wire A used.
39. N. P. D. very uncertain from using double wires.
44. R. A. observed over C_5 and D_1; weight 2 given to C_5.
46.47. Wire B used.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Corrections.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ″	r ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	21 32	10 8.5	5.5	4.8	6.0	.	. .	589	. .	. .	. .	11.0	21 35 24.8	. .	+ 22.3	72 42 8.3	− 3.2
2	21 0	10 1.4	28.5	28.0	28.5	24	. .	. .	. .	926	680	11.0	21 3 42.7	413	+ 21.6	72 10 25.5	− 3.2
3	24 22	7.1	4.0	1.3	3.4	22	. .	. .	. .	130	056	11.0	24 26 18.9	560	+ 26.4	75 33 6.5	− 0.4
4	. .	0.5	0.5	0.0	28.2	25	978	920	. .	. .	. .	11.0	229 41 22.1	. .	+ 1 8.2	1 23 50.9	+ 0.4
5	310 16	2.4	0.3	0.2	1.1	29	. .	. .	065	102	050	11.0	310 18 36.1	540	− 1 8.2	1 23 49.1	− 1.4
6	21 2	7.3	3.2	0.5	3.8	29	. .	484	465	. .	. .	11.0	21 4 27.5	. .	+ 21.8	72 11 10.5	− 3.1
7	20 30	2.5	0.0	26.6	29.0	28	. .	. .	. .	392	393	11.0	20 32 47.3	438	+ 21.2	71 39 29.7	− 3.1
8	22 36	8.5	5.7	4.0	4.8	27	595	496	. .	420	401	11.0	22 38 55.8	435	+ 23.6	73 45 40.6	+ 0.3
9	186 54	4.2	4.3	0.9	3.3	24	. .	. .	420	361	248	11.0	186 57 45.1	. .	+ 6.9	44 8 29.2	+ 0.9
10	10 20	4.7	2.1	0.8	2.3	23	485	448	. .	372	340	11.0	10 24 1.4	432	+ 10.4	61 30 33.0	− 1.0
11	40 6	6.0	2.9	1.4	2.2	22	042	042	. .	912	819	11.0	40 10 22.7	. .	+ 47.7	91 17 31.6	− 1.2
12	12 16	5.5	2.0	0.4	1.6	27	844	. .	. .	. .	666	11.0	12 18 55.2	421	+ 12.3	63 25 28.7	− 2.7
13	12 16	5.5	2.0	0.4	1.6	29	. .	515	. .	315	. .	11.0	12 18 29.1	. .	+ 12.3	63 25 2.6	− 2.7
14	217 26	9 29.3	29.2	27.8	25.0	26	535	570	. .	. .	490	10.7	217 29 17.5	509	+ 44.1	13 36 19.6	− 0.7
15	203 30	3.7	3.6	2.2	0.2	23	995	030	. .	875	826	10.6	203 33 51.8	521	+ 25.1	27 32 4.3	− 1.2
16	162 18	0.6	0.6	28.3	26.3	26	. .	. .	150	945	922	10.6	162 21 23.4	. .	− 18.3	68 45 16.1	− 0.3
17	328 48	15.5	13.8	13.2	12.8	28	680	650	. .	618	595	10.6	328 50 29.6	. .	− 35.0	19 56 15.8	− 1.9
18	38 56	6.5	3.4	1.7	2.7	28	581	550	. .	405	390	10.6	38 58 42.0	538	+ 46.8	90 5 50.0	− 2.3
19	156 22	2.0	0.6	29.1	28.7	26	475	469	. .	400	383	10.6	156 25 16.8	. .	− 25.3	74 41 29.7	+ 1.3
20	344 24	4.5	1.2	0.3	1.3	23	. .	. .	. .	200	350	10.6	344 28 3.2	. .	− 16.1	35 34 8.3	− 1.9
21	29 22	4.2	1.3	29.5	0.5	26	. .	716	. .	638	. .	10.6	29 25 11.9	. .	+ 32.7	80 32 5.8	− 2.3
22	320 30	4.4	2.7	2.5	3.2	26	458	435	. .	364	464	10.6	320 33 14.1	. .	− 47.7	11 39 47.6	− 3.1
23	141 8	3.6	2.2	0.4	29.6	27	. .	. .	522	478	390	10.6	141 10 59.0	550	− 46.7	89 56 8.9	+ 2.1
24	61 28	4.2	2.9	0.2	1.2	23	415	364	. .	295	232	10.5	61 32 2.1	. .	+ 1 46.8	112 40 10.1	− 2.5
25	274 48	4.0	3.2	2.3	3.3	22	300	310	675	. .	. .	10.5	274 52 14.8	562	−10 3.6	325 48 32.4	− 2.2
26	314 44	8.0	5.9	5.5	6.1	29	. .	. .	890	. .	. .	10.5	314 46 17.5	. .	− 58.8	5 51 39.9	−20.7
27	314 44	8.0	5.9	5.5	6.1	28	. .	. .	730	. .	. .	10.5	314 46 35.4	. .	− 58.8	5 51 57.8	− 2.8
28	232 26	3.1	3.2	1.6	1.1	27	. .	. .	655	686	800	10.5	232 28 57.0	. .	+ 1 16.0	358 36 8.2	− 1.1
29	307 28	1.5	29.7	28.2	0.3	27	. .	295	351	292	. .	10.5	307 31 3.4	580	− 1 16.0	358 36 8.6	− 0.7
30	49 18	3.5	0.6	28.5	29.7	27	. .	975	. .	825	. .	10.5	49 20 53.8	. .	+ 1 8.0	100 28 23.0	− 1.3
31	348 52	3.5	0.2	29.7	0.9	26	225	144	. .	028	040	10.5	348 55 21.4	580	− 11.5	40 1 31.1	− 1.6
32	290 40	4.2	3.5	2.7	4.1	27	942	932	. .	748	610	10.4	290 42 50.6	. .	− 2 33.4	341 46 38.4	+ 0.2
33	206 2	2.0	2.3	0.3	29.5	21	828	837	. .	704	622	10.4	206 6 27.2	. .	+ 28.6	24 59 25.4	− 3.2
34	48 36	5.3	3.2	1.1	2.0	21	. .	978	. .	956	. .	10.4	48 42 55.6	580	+ 1 6.5	99 50 23.3	− 2.9
35	54 18	5.0	3.1	0.4	2.0	24	232	145	. .	058	972	10.4	54 21 49.7	. .	+ 1 21.4	105 29 32.3	+ 0.7
36	215 44	1.1	1.7	0.5	28.9	25	. .	. .	. .	671	750	10.4	215 47 26.7	. .	+ 42.2	15 18 12.3	− 1.6
37	132 10	5.0	4.3	1.0	0.3	24	. .	. .	400	364	. .	10.4	132 13 45.1	585	− 1 4.4	98 53 40.5	+ 1.0
38	1 0	6.3	2.4	1.0	3.3	27	060	055	. .	924	926	10.4	1 3 5.4	. .	+ 1.1	52 9 27.7	− 1.7
39	52 56	3.7	1.8	29.1	0.5	23	. .	. .	. .	105	. .	10.4	53 0 6.3	. .	+ 1 17.6	104 7 45.1	− 3.5
40	41 30	6.5	4.2	2.5	3.8	26	. .	. .	050	930	. .	10.3	41 33 18.8	592	+ 52.0	92 40 32.0	− 2.5
41	57 32	4.1	1.9	29.5	1.5	25	. .	894	. .	. .	. .	10.3	57 35 34.1	. .	+ 1 32.2	108 43 17.5	− 0.9
42	57 32	4.1	1.9	29.5	1.5	27	. .	. .	. .	003	. .	10.3	57 35 5.3	. .	+ 1 32.2	108 42 58.7	− 0.9
43	57 18	2.7	0.0	28.5	29.5	15	887	925	993	007	036	10.2	57 23 55.9	617	+ 1 32.0	108 31 49.1	. .
44																	
45																	
46	20 16	8.0	4.8	2.5	3.7	21	273	251	. .	. .	. .	10.5	20 17 48.5	. .	+ 21.0	71 24 30.7	− 3.0
47	20 48	10 3.3	0.4	29.8	28.8	23	. .	. .	. .	850	782	10.5	20 49 25.8	448	+ 21.6	71 56 8.6	− 3.1
48																	
49	310 14	10 1.1	28.8	28.8	0.2	21	384	405	358	390	500	11.9	310 18 35.6	410	− 1 6.2	1 23 50.6	− 0.5
50	18 40	6.4	4.0	1.7	3.5	24	. .	. .	. .	444	. .	11.9	18 43 44.1	400	+ 19.0	69 50 24.3	− 2.5

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
3	30.251	55.0	59.5

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
43	− 45 38.2	+ 14 50.2

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s	s.	s	s.	h. m. s.	s.
May 14	1	Sun I	N.	3	. .	. .	. .	29.4	32.6	33.6	34.7	35.7	42.4	26 3.50	− 0.14	. .	−11.61	3 25 51.75	. .
	2	Sun II, N. . . .	N.	3	4.6	7.4	8.9	15.5	17.6	19.8	26.1	27.9	30.6	28 17.60	− 0.14	. .	−11.61	3 28 5.85	. .
	3	α Tauri	N.	4	19.3	21.9	23.4	29.9	32.0	34.1	40.4	42.1	44.7	28 31.98	− 0.16	−11.58	−11.60	4 28 20.22	− 0.02
	4	α Aurigæ . . .	N.	3	49.7	53.4	55.6	4.3	7.3	10.1	18.9	21.1	24.8	7 7.24	0.00	. .	−11.59	5 6 55.65	+ 0.03
	5	β Tauri	N.	4	54.0	57.0	58.7	5.7	8.0	10.3	17.3	19.0	21.9	18 7.99	− 0.10	−11.63	−11.59	5 17 56.30	+ 0.03
	6	δ Orionis . . .	N.	3	14.8	17.3	18.7	25.0	27.0	29.0	35.1	36.6	39.2	26.97	− 0.22	−11.58	−11.59	5 25 15·16	− 0.03
16	7	Polaris, S. P. . .	E.	.	. .	. .	34.0	9.0	47.0	24.0	1.0	. .	. .	10 47.32	−13.52	. .	−10.85	1 10 22.95	+ 2.23
	8	ζ Virginis . . .	E.	.	58.6	1.2	2.9	8.9	10.8	12.8	19.0	20.6	23.0	28 10.87	− 0.32	−10.80	−10.85	13 27 59.70	− 0.05
	9	η Ursæ Majoris .	E.	.	13.7	17.5	20.0	29.1	32.8	36.4	45.4	47.7	51.5	42 32.68	+ 0.07	. .	−10.84	13 42 21.91	+ 0.11
	10	θ Bootis	E.	.	35.0	39.0	41.5	51.3	54.9	58.2	8.3	10.5	14.7	20 54.82	+ 0.10	. .	−10.84	14 20 44.08	+ 0.16
	11	5 Ursæ Minoris .	E.	.	. .	. .	45.1	54.7	3.8	12.0	21.0	. .	. .	28 3.32	+ 1.04	. .	−10.83	14 27 53.53	− 0.10
	12	ε Bootis	E.	.	12.3	15.1	16.8	23.7	26.0	28.2	35.4	37.0	39.8	39 26.04	− 0.15	−10.87	−10.83	14 39 15.06	+ 0.03
	13	β Ursæ Minoris .	E.	.	34.5	44.0	50.0	12.7	21.1	28.5	52.0	57.2	5.5	51 20.61	+ 0.85	. .	−10.83	14 51 10.63	+ 0.19
	14	β Bootis	E.	.	55.0	58.6	0.5	8.4	11.5	14.1	22.1	24.8	27.3	57 11.37	− 0.04	. .	−10.83	14 57 0.50	+ 0.30
17	15	Moon II, N. . .	N.	3	. .	45.6	49.8	51.2	53.8	6.3	9.5	. .	19.0	48 41.38	− 0.13	. .	−10.96	0 48 30.29	−63.69
	16	Polaris	N.	4	5.0	50.5	53.0	. .	. .	. .	. .	. .	. .	10 27.20	+ 4.39	. .	−10.96	1 10 20.63	− 0.62
18	17	Sun I, S. . . .	N.	3	41.1	43.9	45.6	52.0	54.5	56.6	2.8	4.4	7.2	41 54.23	− 0.10	. .	−10.95	3 41 43.18	. .
	18	Sun II, N. . . .	N.	3	55.8	58.6	0.3	6.7	9.1	11.0	17.5	19.2	21.9	44 8.90	− 0.10	. .	−10.95	3 43 57.85	. .
	19	α Tauri	N.	3	. .	. .	. .	. .	. .	. .	. .	41.4	44.1	28 31.35	− 0.11	−10.99	−10.95	4 28 20.29	+ 0.04
	20	ι Aurigæ . . .	N.	3	19.8	22.7	24.5	31.8	34.3	36.6	44.0	46.0	49.0	48 34.30	− 0.07	−10.95	−10.95	4 48 23 28	− 0.03
	21	β Tauri	N.	.	. .	. .	. .	. .	. .	. .	. .	18.3	21.1	18 7.24					
	22	Venus I, S. C. .	N.	4	49.1	51.9	53.7	0.5	2.8	5.0	12.0	13.6	16.5	58 2.79	− 0.08	. .	−10.94	6 57 51.77	− 1.03
	23	Venus, N. L. . .	N.	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . . .	. .
	24	α Ursæ Majoris, (R.)	N.	3	. .	35.7	40.2	44.5	49.0	53.4	2.2	5.6	11.2	55 44.57	+ 0.27	. .	−10.92	10 55 33.92	+ 0.06
	25	δ Leonis, (R.) . .	N.	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . . .	. .
	26	δ Crateris . . .	N.	4	44.1	47.0	48.4	54.6	56.7	58.7	5.3	6.7	9.4	12 56.77	− 0.16	−10.90	−10.92	11 12 45.69	− 0.02
	27	λ Draconis, (R.) . .	N.	4	7.3	14.9	31.5	. .	43.3	. .	55.1	11.7	19.1	23 43.27	+ 0.41	. .	−10.92	11 23 32.76	+ 0.15
	28	γ Cephei, S. P. .	N.	4	3.4	52.1	45.2	18.4	9.8	0.4	33.5	26.7	15.3	34 9.42	− 0.62	. .	−10.92	23 33 57.88	+ 0.34
	29	β Leonis	N.	4	18.9	21.4	23.0	29.4	31.5	33.7	40.0	41.5	44.2	42 31.51	− 0.11	−10.87	−10.92	11 42 20.48	− 0.04
	30	β Corvi	N.	3	27.1	29.8	31.4	38.1	40.2	42.4	49.2	50.6	53.4	27 40.24	− 0.17	−10.95	−10.92	11 27 29.15	+ 0.09
	31	21 Cassiopeæ, S. P. .	N.	3	55.1	45.8	40.2	17.8	10.1	2.6	40.1	34.1	25.1	37 10.10	− 0.54	. .	−10.92	0 36 58.64	+ 0.15
	32	32^1 Camelopardalis .	N.	3	16.1	42.5	56.8	56.7	17.4	36.5	36.8	51.6	16.4	48 16.76	+ 1.14	. .	−10.91	12 48 6.99	− 7.44
	33	32^2 Camelopardalis .	N.	.	24.6	49.5	4.6	4.1	24.8	44.8	. .	59.3	24.3	48 24.51	+ 1.14	. .	−10.91	12 48 14.74	+ 0.31
	34	Polaris, S. P. . .	N.	.	. .	. .	. .	. .	. .	. .	50.8	5.5	. .	10 36.50	− 4.68	. .	−10.91	1 10 20.91	+ 0.69
21	35	Sun I, N. . . .	N.	3	40.2	44.5	48.9	51.0	53.3	55.4	57.5	2.0	6.2	53 53.22	− 0.14	. .	−10.51	3 53 42.57	. .
	36	Sun II, S. . . .	N.	3	55.4	58.0	59.6	6.3	8.4	10.5	17.2	19.0	21.5	56 8.43	− 0.14	. .	−10.51	3 55 57 78	. .
	37	β Orionis . . .	N.	2	9.4	11.8	13.4	19.6	21.6	23.7	30.0	31.4	34.0	8 21.66	− 0.25	−10.47	−10.50	5 8 10.91	− 0.02
	38	β Tauri	N.	2	53.0	55.8	57.5	4.6	6.9	9.1	16.0	17.8	20.8	18 6.83	− 0.10	−10.46	−10.50	5 18 56.23	− 0.05
	39	γ Geminorum . .	N.	2	. .	. .	11.0	13.1	15.3	17.4	19.5	. .	. .	30 15.26	− 0.16	−10.41	−10.50	6 30 4.60	− 0.09
	40	δ Leonis, (R.) . .	N.	4	3.1	6.0	7.6	. .	. .	. .	25.1	26.8	29.5	7 16.35	− 0.05	. .	−10.47	11 7 5.83	− 0.08
	41	λ Draconis . . .	N.	4	6.5	14.3	18.8	36.8	42.8	48.6	6.5	11.2	18.7	23 42.69	+ 0.43	. .	−10.47	11 23 32.65	+ 0.19
	42	υ Leonis	N.	4	10.9	13.4	15.0	21.1	23.1	25.1	31.2	32.8	35.4	30 23.11	− 0.22	−10.50	−10.47	11 30 12.42	− 0.09
	43	γ Cephei, S. P. .	N.	3	3.6	52.4	45.6	18.6	10.0	0.7	34.1	27.2	16.0	34 9.80	− 1.23	. .	−10.47	23 33 58.10	+ 0.25
	44	β Leonis, (R.) . .	N.	3	18.3	21.0	22.6	29.0	31.0	33.1	39.6	41.0	43.7	42 31.03	− 0.09	. .	−10.47	11 42 20.47	− 0.02
	45	γ Ursæ majoris . .	N.	4	42.8	47.1	49.8	0.2	3.7	7.3	17.8	20.3	23.8	47 3.65	+ 0.09	. .	−10.47	11 47 53.27	− 0.03
	46	η Virginis . . .	N.	3	9.0	11.4	13.0	19.1	21.2	23.3	29.3	31.0	33.5	13 21.20	− 0.23	−10.50	−10.47	12 13 10.50	+ 0.02
	47	κ Draconis . . .	N.	4	32.2	36.7	48.9	55.2	1.4	7.4	13.5	25.7	30.5	28 1.28	+ 0.45	. .	−10.46	12 27 51.27	+ 0.02
	48	α Cassiopeæ, S. P. .	N.	1	35.0	30.4	27.7	16.7	13.1	9.4	58.4	55.8	51.4	33 13.10	− 0.57	. .	−10.46	0 33 2.07	0.00
	49	32^1 Camelopardalis .	N.	4	. .	. .	. .	15.2	34.9	54.8	34.8	49.6	14.6	48 15.14	+ 2.44	. .	−10.46	12 48 7.12	− 7.15

6. Set E and VII in R. A.

15. R. A. over C_5, D, VI, E_2, and VII. North limb quite faint, and contacts therefore made with upper wire (a) of pair by moving micrometer backward each time.

16. Set B in R. A. and B_2 and B_3 in N. P. D.

19.21. R. A. over D_2 and D_3 only.

31.32.33. Bisections at sets B and D.

34. R. A. over wires D_1 and C_5.

47.49. Bisections at sets B and D.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1																	
2	19 44	9 9.2	6.2	4.8	5.0	22	. .	. .	525	. .	. .	11.9	19 48 41.7	363	+ 20.1	70 55 23.0	− 3.0
3	22 36	6.8	4.1	1.6	2.7	27	721	620	. .	569	546	11.9	22 38 56.5	348	+ 23.1	73 45 40.8	+ 0.6
4	353 0	10.2	6.0	5.5	6.1	30	320	269	. .	141	129	11.9	353 2 14.0	326	− 6.7	44 8 28.5	− 0.2
5	10 20	8.3	6.3	5.2	6.1	23	232	182	. .	080	056	11.9	10 24 2.5	. .	+ 10.1	61 30 33.8	− 0.3
6	39 14	8.2	5.6	2.9	4.5	27	140	102	. .	979	942	11.9	39 17 3.7	338	+ 45.2	90 24 10.1	− 0.9
7	307 26	7.6	6.0	5.4	5.7	19	148	200	270	215	159	11.0	307 31 1.5	. .	− 1 13.9	358 36 8.8	+ 0.6
8	38 44	5.3	2.4	21.3	0.3	22	822	852	782	760	. .	11.0	38 48 11.3	. .	+ 45.7	89 55 18.2	+ 1.6
9	348 52	12.0	9.0	6.7	7.3	25	. .	422	518	540	. .	11.0	348 55 23.4	. .	− 11.1	40 1 33.5	+ 2.2
10	346 22	15.7	12.0	9.6	10.0	22	625	532	. .	448	430	11.0	346 26 6.2	. .	− 13.7	37 32 13.7	+ 1.1
11	322 34	9.5	5.8	5.4	5.2	26	. .	. .	. .	020	. . .	11.0	322 37 17.1	. .	− 43.5	13 43 54.8	− 0.5
12	11 12	14.8	11.8	10.0	10.2	24	842	814	. .	720	700	11.0	11 15 31.4	. .	+ 11.3	62 22 3.9	+ 0.6
13	324 8	5.5	3.3	1.0	3.3	21	415	. .	320	. .	455	11.0	324 12 31.8	. .	− 41.0	15 18 12.0	− 0.4
14	357 56	3.0	28.3	28.0	28.2	20	. .	200	090	116	. .	11.0	357 58 54.4	. .	− 2.0	49 5 13.6	+ 0.8
15	37 36	10 8.1	6.0	3.7	5.0	25	202	438	564	665	862	10.4	37 39 28.0	417	+ 43.5	88 46 32.7	
16	310 16	3.5	2.2	1.4	2.7	29	182	159	. .	. .	. .	10.4	310 18 34.5	413	− 1 6.2	1 23 49.5	− 2.6
17	19 22	8.3	6.8	4.4	5.8	23	458	449	. .	. .	. .	10.4	19 25 56.9	. .	+ 19.5	70 32 37.6	− 2.8
18	18 50	9 15.8	13.3	11.5	12.0	23	. .	. .	. .	338	251	10.4	18 54 21.1	330	+ 18.9	70 1 1.2	− 2.9
19																	
20	5 52	2.6	29.6	28.7	29.5	21	. .	. .	. .	814	814	10.4	5 56 26.6	. .	+ 5.7	57 2 53.5	− 0.1
21																	
22	12 48	7.7	5.2	2.1	3.5	22	260	. .	. .	. .	075	10.4	12 52 17.7	. .	+ 12.7	63 58 51.6	− 3.1
23	12 48	7.7	5.2	2.1	3.5	24	. .	086	. .	912	. .	10.4	12 51 49.5	. .	+ 12.7	63 58 23.4	− 3.1
24	203 30	2.7	3.1	2.1	29.2	23	. .	. .	910	815	735	10.4	203 33 53.6	446	+ 24.7	27 32 2.9	− 1.5
25	162 18	3.1	2.7	0.3	28.4	25	. .	. .	. .	. .	770	10.4	162 21 24.2	. .	− 18.0	68 45 15.0	− 0.7
26	52 52	5.7	3.6	0.5	1.1	21	. .	. .	560	. .	. .	10.4	52 56 28.5	. .	+ 1 15.1	104 4 4.8	− 2.6
27	211 6	3.5	5.2	3.2	0.5	25	145	. .	130	115	096	10.4	211 9 33.3	. .	+ 34.3	19 56 13.6	− 3.1
28	295 46	2.8	0.6	29.7	0.4	26	946	035	. .	918	826	10.4	295 49 6.0	471	− 1 57.2	346 53 30.0	− 0.5
29	23 30	8.8	5.0	2.8	3.1	20	681	742	. .	548	548	10.4	23 34 40.5	. .	+ 24.9	74 41 26.6	− 0.7
30	61 28	7.8	6.3	3.2	3.9	22	. .	. .	862	. .	. .	10.4	61 32 6.1	. .	+ 1 45.1	112 40 12.4	− 0.4
31	293 8	5.2	3.5	3.2	3.7	25	001	998	. .	980	962	10.4	293 11 34.8	493	− 2 12.8	344 15 43.2	+ 1.6
32	314 42	5.7	3.3	3.5	3.6	22	478	398	. .	376	340	10.4	314 46 15.0	. .	− 57.7	5 51 38.5	−20.5
33	314 42	5.7	3.3	3.5	3.6	21	200	220	. .	149	202	10.4	314 46 33.4	. .	− 57.7	5 51 56.9	− 2.1
34																	
35	18 14	10.0	6.4	6.0	8.6	27	010	000	. .	. .	. .	11.0	18 17 1.9	. .	+ 18.5	69 23 41.6	− 2.7
36	18 46	3.7	0.7	26.3	0.2	29	. .	. .	. .	011	106	11.0	18 48 36.4	391	+ 19.0	69 55 16.6	− 2.8
37	47 10	6.9	4.1	1.6	3.5	22	. .	. .	640	565	540	11.0	47 14 11.5	368	+ 1 0.2	98 21 32.9	− 2.5
38	10 20	5.4	1.8	1.1	3.0	23	341	369	. .	384	255	11.0	10 24 2.2	. .	+ 10.2	61 30 33.6	− 0.9
39	22 20	7.0	3.9	1.8	3.5	27	. .	950	. .	. .	830	11.0	22 22 51.0	347	+ 22.8	73 29 35.0	− 1.2
40	162 18	6.3	6.3	3.7	1.8	25	770	738	. .	656	630	10.7	162 21 23.6	. .	− 17.8	68 45 15.4	+ 0.8
41	328 48	5.8	2.7	2.1	2.3	29	820	658	. .	536	600	10.7	328 50 25.8	410	− 34.1	19 56 13.0	− 3.5
42																	
43	295 46	4.0	2.1	2.1	3.0	27	. .	101	168	990	. .	10.7	295 49 3.7	. .	− 1 55.8	346 53 29.1	− 1.3
44	156 22	4.0	2.9	1.6	0.5	26	. .	240	238	200	. .	10.7	156 25 17.9	. .	− 24.6	74 41 27.9	+ 1.4
45	344 24	4.7	1.2	0.4	0.6	23	481	471	. .	315	380	10.7	344 28 2.3	427	− 15.7	35 34 7.8	− 0.9
46	38 46	6.6	4.0	2.1	2.2	27	. .	462	. .	400	. .	10.6	38 48 58.0	. .	+ 45.5	89 56 4.7	− 1.5
47	328 20	4.8	2.3	3.0	3.0	27	. .	146	132	112	. .	10.6	328 23 3.1	440	− 34.9	19 28 49.4	− 2.1
48	274 48	2.7	2.0	1.0	1.5	23	. .	. .	750	748	920	10.6	274 51 55.5	. .	− 9 47.1	325 48 29.6	− 4.2
49	314 42	4.7	2.2	1.3	2.0	22	630	636	. .	515	558	10.6	314 46 13.8	450	− 57.2	5 51 37.8	−20.7

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
15	− 34 14.3	+ 15 22.9

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
May 21	1	32^2 Camelopardalis	N.	4	. .	. .	. .	23.2	43.0	2.7	42.7	57.4	22.0	48 22.99	+ 2.44	. .	−10.46	12 48 14.97	+ 0.70
	2	Polaris, S. P., (R.)	N.	4	. .	. .	. .	. .	. .	. .	11.0	12.0	25.0	10 46.68	−11.80	. .	−10.46	1 10 24.42	+ 0.58
	3	Polaris, S. P.	N.	4	. .	. .	32.0	7.5	43.5	22.0	. .	. .	. .	10 45.05	− 9.80	. .	−10.46	1 10 24.79	+ 0.05
	4	α Virginis, (R.)	N.	3	14.5	17.0	18.6	24.8	26.9	29.0	35.2	36.7	39.2	18 26.88	− 0.21	. .	−10.46	13 18 16.21	− 0.03
	5	ζ Virginis, (R.)	N.	3	58.2	0.7	2.3	6.3	8.3	10.4	12.4	. .	. .	28 10.39	− 0.15	. .	−10.46	13 27 59.78	+ 0.05
	6	η Ursæ Majoris	N.	2	13.2	17.1	14.3	29.1	32.2	35.1	44.9	47.4	51.2	42 32.17	+ 0.06	. .	−10.46	13 42 21.77	+ 0.02
	7	50 Cassiopeæ, S. P.	N.	2	3.0	54.7	49.8	30.2	23.2	17.1	57.7	52.7	44.8	52 23.69	− 0.91	. .	−10.46	1 52 12.32	+ 0.31
	8	α Draconis, (R.)	N.	3	32.4	38.2	41.8	56.3	1.1	6.0	20.3	24.0	30.1	1 1.13	+ 0.45	. .	−10.46	14 1 51.12	+ 0.16
	9	α Bootis	N.	3	37.6	40.3	41.9	48.5	50.8	52.9	59.4	0.9	3.7	9 50.67	− 0.14	−10.47	−10.45	14 9 40.08	+ 0.03
	10	ε Bootis	N.	2.3	11.7	14.8	16.5	23.3	25.7	27.8	34.9	36.5	39.3	39 25.61	− 0.10	−10.49	−10.45	14 39 15.06	+ 0.03
	11	β Ursæ Minoris, (R.)	N.	2	33.7	43.2	49.5	4.5	12.4	. .	36.0	. .	. .	51 19.69	+ 0.86	. .	−10.45	14 51 10.10	− 0.24
	12	β Bootis	N.	3	54.5	58.0	0.0	8.1	10.7	13.3	21.8	23.7	27.0	57 10.79	− 0.03	. .	−10.45	14 57 0.28	+ 0.08
	13	48 Cephei, S. P.	N.	4	45.4	33.8	26.9	59.1	50.1	41.1	13.0	6.2	54.7	3 50.03	− 1.25	. .	−10.45	3 3 38.33	+ 0.40
	14	β Libræ	N.	4	54.8	57.2	58.9	5.1	7.1	9.1	15.2	17.0	19.5	10 7.10	− 0.26	−10.46	−10.45	15 9 56.39	0.00
	15	Juno	N.	2	36.4	38.8	40.1	. .	. .	. .	. .	. .	12.8	31 48.42	− 0.22	. .	−10.45	15 31 37.75	. .
	16	ζ Ursæ Minoris	N.	3	. .	. .	54.1	3.9	14.0	24.4	44.2	50.9	3.7	49 4.02	+ 0.92	. .	−10.45	15 48 54.49	− 0.05
	17	β Scorpii	N.	1	45.8	48.6	50.3	56.8	58.9	1.1	7.5	9.1	11.8	57 58.88	− 0.30	−10.49	−10.45	15 57 48.13	+ 0.00
	18	Saturn I, S.	N.	1	23.8	26.6	28.2	. .	. .	. .	45.3	46.9	49.8	3 36.77	− 0.30	. .	−10.45	16 3 26.02	. .
	19	Saturn II, N.	N.	2	. .	. .	33.7	35.9	38.0	40.1	42.4	. .	. .	3 38.02	− 0.30	. .	−10.45	16 3 27.27	. .
	20	Polaris	A.	2	. .	. .	37.0	3.0	25.0	48.0	12.0	. .	. .	10 25.30	+ 8.99	. .	−10.46	1 10 23.83	− 0.41
	21	α Arietis	A.	3	41.1	44.0	45.6	52.2	54.3	56.5	3.3	4.9	7.6	59 54.39	− 0.12	−10.38	−10.46	1 59 43.81	− 0.07
22	22	Sun I, S.	A.	3	41.0	43.4	45.1	51.7	54.2	56.3	2.4	4.6	7.1	57 53.98	− 0.13	. .	−10.45	3 57 43.40	. .
	23	Sun II, N.	A.	3	56.2	59.1	0.5	7.1	9.4	11.5	18.1	19.6	22.5	0 9.33	− 0.13	. .	−10.45	3 59 58.75	. .
	24	α Aurigæ	A.	1	48.4	52.2	54.2	3.2	6.0	8.8	17.8	19.7	23.7	7 6.00	+ 0.03	. .	−10.44	5 6 55.58	− 0.05
	25	β Tauri	A.	1	52.8	. .	57.7	4.6	6.9	9.3	16.1	. .	20.8	18 6.89	− 0.09	−10.52	−10.44	5 17 56.36	+ 0.07
	26	δ Orionis	A.	3	13.5	16.1	17.6	23.8	25.8	27.8	34.0	35.6	38.1	25 25.81	− 0.18	−10.47	−10.44	5 25 15.19	+ 0.01
	27	α Orionis	A.	2	59.3	1.8	3.5	9.5	11.6	13.6	19.5	21.5	23.9	48 11.58	− 0.18	−10.41	−10.44	5 48 0.96	− 0.03
	28	Venus, S.	A.	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. . .	. . .	. .
	29	Venus, N,	A.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. . .	. . .	. .
	30	α Canis Minoris	A.	3	. .	. .	. .	. .	. .	. .	41.8	43.4	46.0	32 33.65	− 0.18	−10.24	−10.43	7 32 23.04	− 0.21
	31	β Corvi	A.	5	26.5	29.2	31.0	37.5	39.6	41.9	48.6	50.2	53.0	27 39.72	− 0.28	−10.36	−10.41	12 27 29.03	+ 0.01
	32	21 Cassiopeæ, S. P.	A.	4	55.1	45.6	40.5	17.7	10.3	2.5	40.1	34.2	25.0	37 10.11	− 1.06	. .	−10.40	0 36.58.65	+ 0.05
	33	32^1 Camelopard., (R.)	A.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. . .	. . .	. .
	34	32^2 Camelopard., (R.)	A.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. . .	. . .	. .
	35	Polaris, S. P.	A.	4	. .	. .	31.0	8.5	42.5	22.0	. .	. .	. .	10 44.25	− 9.47	. .	−10.40	1 10 24.38	− 0.18
	36	α Virginis, (R.)	A.	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. . .	. . .	. .
	37	ζ Virginis, (R.)	A.	.	58.5	0.5	2.0	8.2	10.2	12.0	18.3	20.0	22.4	28 10.23	− 0.11	. .	−10.40	13 27 59.72	0.00
	38	η Ursæ Majoris, (R.)	A.	2	12.7	16.7	19.4	28.5	31.6	34.9	44.1	46.4	50.5	42 31.65	+ 0.23	. .	−10.40	13 42 21.48	− 0.25
	39	50 Cassiopeæ, S. P.	A.	4	3.0	54.4	49.3	29.7	23.1	16.7	57.4	52.2	43.5	23.26	− 0.93	. .	−10.40	1 52 11.93	− 0.13
	40	α Draconis	A.	4	32.3	38.2	42.1	56.5	1.1	5.8	20.6	24.2	30.2	1 1.22	+ 0.26	. .	−10.40	14 0 51.08	+ 0.14
	41	α Bootis	A.	3	37.6	40.6	42.1	48.5	50.6	52.8	59.4	1.0	3.7	9 50.70	− 0.13	−10.52	−10.40	14 9 40.17	+ 0.13
	42	θ Bootis	A.	.	34.2	41.0	47.6	50.9	54.2	57.6	1.2	7.6	14.5	20 54.31	+ 0.06	. .	−10.40	14 20 43.97	+ 0.10
	43	5 Ursæ Minoris	A.	4	11.6	22.1	28.4	54.6	3.2	11.4	37.7	44.4	55.0	3.16	+ 0.73	. .	−10.40	14 27 53.49	+ 0.00
24	44	Polaris	N.	3	. .	. .	. .	. .	. .	52.5	4.0	6.0	50.0	10 30.18	+ 7.02	. .	−10.02	1 10 27.18	+ 0.79
	45	β Arietis	N.	4	17.9	20.6	22.3	28.8	31.0	33.1	39.7	41.3	44.0	47 30.97	− 0.08	− 9.98	−10.01	1 47 20.88	− 0.02
	46	α Arietis	N.	3	40.7	43.6	45.1	51.7	54.0	56.2	2.9	4.5	7.4	59 54.01	− 0.07	− 9.98	−10.01	1 59 43.93	− 0.02
	47	γ Ceti	N.	2.3	25.3	27.8	29.3	35.3	37.5	39.4	45.3	47.2	49.6	36 37.41	− 0.13	. .	−10.01	2 36 27.27	+ 0.02
	48	α Ceti	N.	2	20.2	22.8	28.4	30.5	32.5	34.8	36.5	42.2	44.8	55 32.52	− 0.13	−10.07	−10.01	2 55 22.36	+ 0.04
25	49	Sun I, S.	N.	2	46.3	49.1	50.7	57.4	59.5	1.7	8.2	9.7	12.6	9 59.47	− 0.08	. .	−10.00	4 9 49.39	. .
	50	Sun II, N.	N.	2	4.7	6.6	11.0	13.1	15.4	17.4	19.6	24.0	25.6	12 15.27	− 0.08	. .	−10.00	4 12 5.19	. .

1.2.11.13.16.32. Bisections at sets B and D_1.
15. Wire A used.
25. Seems five rev. wrong in N. P. D.
31. N. P. D. seems all wrong.
33.34. Bisections half way between D_3 and VI.
44. Observed over wires C_4, D_1, D_3; in R. A. double weight given to C_4.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	314 42	4.7	2.2	1.3	2.0	21	440	344	. .	392	404	10.6	314 46 32.1	. .	— 57.2	5 51 56.1	— 2.4
2	232 26	4.0	4.7	3.2	2.0	27	. .	. .	331	370	475	10.6	232 29 0.8	. .	+ 1 13.9	358 36 6.5	— 0.7
3	307 28	3.5	2.9	1.8	2.4	27	. .	365	384	410	. .	10.6	307 30 59.7	. .	— 1 13.8	358 36 7.1	— 0.1
4	130 36	2.7	2.1	29.4	29.0	27	339	411	. .	290	285	10.5	130 39 2.4	460	— 1 6.1	100 28 24.9	+ 0.7
5	141 10	6.1	4.6	1.7	1.3	32	040	007	. .	892	850	10.5	141 11 49.0	. .	— 45.7	89 55 17.9	+ 1.7
6	348 52	5.8	2.2	1.8	2.5	26	245	149	. .	084	119	10.5	348 55 18.8	. .	— 11.2	40 1 28.8	— 1.4
7	290 40	4.0	2.8	2.4	3.5	28	176	072	. .	134	088	10.5	290 42 46.3	480	— 2 29.8	341 46 37.7	+ 1.4
8	206 2	0.1	0.7	28.8	27.1	21	. .	. .	700	600	476	10.5	206 6 30.2	. .	+ 28.0	35 59 23.0	— 2.8
9	18 58	5.4	2.9	1.3	1.9	27	220	175	. .	025	058	10.5	19 1 3.7	. .	+ 19.7	70 7 44.6	+ 0.9
10	11 12	4.3	1.9	29.5	0.6	25	. .	. .	542	. .	. .	10.4	11 15 28.8	484	+ 11.4	62 22 1.4	— 0.8
11	215 44	1.8	3.1	2.3	0.0	25	388	443	. .	260	314	10.4	215 47 31.3	. .	+ 41.1	15 18 8.8	— 2.1
12	357 56	5.6	2.0	1.0	1.5	28	. .	082	. .	965	. .	10.4	357 58 50.4	. .	— 2.0	49 5 9.6	— 1.8
13	296 6	3.6	1.8	1.7	2.7	23	190	068	. .	045	092	10.4	296 10 5.1	488	— 1 56.2	347 14 30.1	— 1.1
14	47 42	4.5	3.0	0.0	1.2	22	710	661	. .	586	506	10.4	47 46 12.8	. .	+ 1 3.0	98 53 37.0	— 2.2
15	40 48	3.9	2.2	0.1	0.3	25	. .	934	. .	872	. .	10.3	40 53 57.3	. .	+ 49.6	92 1 10.1	— 2.4
16	320 38	2.5	29.6	0.0	0.4	22	225	181	. .	170	164	10.3	320 42 21.3	494	— 46.9	11 47 55.6	— 1.2
17	58 16	5.5	4.8	2.2	2.9	21	152	150	. .	030	020	10.3	58 18 34.4	. .	+ 1 32.5	109 26 28.1	— 0.6
18	57 24	7.4	4.9	2.2	3.7	26	206	. .	. .	. .	032	10.3	57 27 16.7	. .	+ 1 29.6	108 35 7.5	— 0.8
19	57 24	7.4	4.9	2.2	3.7	27	. .	309	. .	290	. .	10.3	57 26 58.8	. .	+ 1 29.5	108 34 49.5	— 0.8
20	310 14	10 5.8	3.9	4.3	5.1	20	975	894	893	909	924	10.0	310 18 36.0	413	— 1 6.2	1 23 51.0	— 1.9
21	16 0	10 11.9	8.6	6.8	7.5	25	879	908	. .	813	751	10.0	16 3 17.0	390	+ 16.1	67 9 54.3	— 1.1
22	18 32	10 11.6	6.7	6.0	6.6	19	369	411	. .	. .	. .	9.7	18 36 56.9	. .	+ 18.6	69 43 36.7	— 2.8
23	18 0	10 14.2	10.6	10.3	9.3	17	. .	. .	. .	920	001	9.7	18 5 13.7	316	+ 18.0	69 11 56.9	— 2.7
24																	
25	10 20	11.0	8.4	6.1	7.0	28	. .	020	. .	840	. .	9.7	10 22 45.3	325	+ 10.0	61 29 16.5	
26																	
27	31 26	10.9	6.7	3.5	5.8	21	. .	399	. .	243	. .	9.7	31 30 27.5	320	+ 33.8	82 37 22.5	— 1.7
28	13 18	10 9.4	5.9	3.5	4.5	24	939	. .	. .	. .	806	9.7	13 21 34.5	. .	+ 13.1	64 28 8.8	— 3.4
29	13 18	10 9.4	5.9	3.5	4.5	26	. .	696	. .	806	. .	9.7	13 21 5.7	318	+ 13.1	64 27 39.8	— 3.4
30	33 16	10 12.5	10.0	7.0	6.9	24	744	790	. .	565	559	9.7	33 19 34.1	326	+ 36.2	84 26 31.5	— 1.1
31	61 28	10 8.4	6.3	2.9	2.5	26	856	811	. .	764	630	9.6	61 31 5.7	407	+ 1 43.1	112 39 10.0	
32	293 8	10 9.0	7.0	5.6	6.5	24	970	990	. .	026	816	9.6	293 11 31.4	406	— 2 10.2	344 15 42.4	+ 1.0
33	225 10	10 3.0	2.6	1.3	29.0	25	. .	. .	229	216	. .	9.6	225 13 30.8	. .	+ 56.5	5 51 53.9	— 4.5
34	225 10	10 3.0	2.6	1.3	29.0	24	. .	. .	366	345	. .	9.6	225 13 44.0	. .	+ 56.6	5 51 40.6	—17.8
35																	
36	130 36	5.3	4.5	1.4	29.5	27	. .	. .	. .	100	990	9.6	130 39 2.8	412	— 1 5.4	100 28 23.8	— 0.4
37																	
38	191 2	10 15.1	15.0	12.1	8.1	27	908	895	. .	899	859	9.6	191 4 40.7	421	+ 11.1	40 1 29.4	— 0.5
39	290 40	10 8.0	6.3	5.2	5.6	28	174	185	. .	161	156	9.6	290 42 42.2	424	— 2 27.9	341 46 35.5	— 0.7
40	333 50	6.5	3.8	3.2	2.4	25	611	426	. .	210	325	9.6	333 53 29.1	. .	— 27.7	24 59 22.6	— 3.0
41	18 58	10 8.3	5.0	2.2	2.1	27	129	070	. .	900	889	9.6	19 1 3.2	430	+ 19.4	70 7 43.8	+ 0.3
42																	
43	322 34	12.9	9.5	8.5	8.0	26	200	163	. .	070	041	9.6	322 37 12.4	433	— 43.1	13 42 50.5	— 2.9
44	310 16	10 5.8	4.5	2.6	3.9	28	. .	. .	. .	850	861	11.3	310 18 36.5	428	— 1 6.4	1 23 51.3	— 2.0
45	18 40	10 8.4	6.4	2.9	4.7	24	. .	. .	273	. .	. .	11.3	18 43 45.1	421	+ 19.1	69 50 25.4	— 0.8
46	16 0	9.3	7.0	4.5	5.1	26	092	098	. .	009	963	11.3	16 3 17.4	. .	+ 16.2	67 9 54.8	— 0.5
47	36 8	7.7	5.4	1.8	3.7	21	. .	. .	. .	. .	876	11.3	36 12 21.5	398	+ 41.0	87 19 23.7	— 3.3
48	35 16	7.9	5.7	2.2	3.0	27	. .	816	. .	720	. .	11.3	35 18 52.6	388	+ 39.6	86 25 53.4	— 1.5
49	18 0	9.9	7.4	5.5	5.4	24	212	221	. .	. .	. .	11.3	18 3 45.5	. .	+ 18.1	69 10 24.8	— 2.7
50	17 28	10.2	7.0	4.1	4.5	22	. .	. .	515	445	459	11.3	17 32 12.3	360	+ 17.5	68 38 51.0	— 2.6

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	′ ″

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
May 25	1	Polaris	A.	3	. .	. .	45.0	7.5	30.0	54.0	17.0	. .	. .	10 31.22	+ 4.75	. .	− 9.85	1 10 26.12	− 0.90
	2	α Ceti	A.	3	19.9	22.5	24.2	30.3	32.4	34.4	40.5	42.0	44.7	55 32.32	− 0.06	− 9.91	− 9.85	2 55 22.41	+ 0.03
26	3	Sun I, N.	A.	2	. .	. .	57.0	0.0	2.2	4.2	6.4	. .	. .	14 1.96	− 0.03	. .	− 9.85	4 13 52.08	. .
	4	Sun II, S.	A.	1	5.0	7.6	9.4	16.0	18.1	20.2	26.9	28.5	31.2	16 18.10	− 0.03	. .	− 9.85	4 16 8.22	. .
	5	β Tauri	A.	1.2	. .	. .	1.5	3.8	6.3	8.3	10.6	. .	. .	18 6.10	− 0.01	− 9.80	− 9.85	5 17 56.24	− 0.06
	6	δ Orionis	A.	4	12.8	15.4	17.0	23.0	25.0	27.1	33.2	34.8	37.4	25 25.08	− 0.06	− 9.85	− 9.85	5 25 15.17	− 0.02
	7	Venus I, S.	A.	3	18.6	21.5	23.4	30.0	32.3	34.3	41.3	43.0	45.7	26 32.23	− 0.02	. .	− 9.84	7 26 22.37	+ 1.13
	8	Venus N.	A.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	9	α Canis Minoris	A.	3	20.5	23.0	24.7	30.7	32.8	35.0	41.2	42.5	45.3	32 32.86	− 0.06	− 9.59	− 9.84	7 32 22.96	− 0.26
	10	κ Draconis	A.	5	. .	. .	. .	. .	. .	. .	24.5	30.0	37.3	28 0.54	+ 0.26	. .	− 9.84	12 27 50.96	− 0.06
	11	α Cassiopeæ, S. P.	A.	5	34.1	29.6	26.7	15.8	12.3	8.7	57.7	55.0	50.3	33 12.24	− 0.28	. .	− 9.84	0 33 2.12	− 0.16
	12	α¹ Canum Venat.	A.	5	45.0	48.1	50.0	. .	. .	. .	11.2	13.1	16.6	50 0.67	+ 0.01	. .	− 9.84	12 49 50.84	− 1.25
	13	α² Canum Venat.	A.	5	. .	. .	56.5	59.1	1.9	4.4	7.1	. .	. .	50 1.80	+ 0.01	. .	− 9.84	12 49 51.97	− 0.12
	14	θ Virginis	A.	5	6.3	8.8	10.5	16.5	18.6	20.6	26.7	28.2	31.0	3 18.58	− 0.07	− 9.91	− 9.84	13 3 8.67	+ 0.06
	15	Polaris, S. P.	A.	4	. .	. .	30.5	5.0	44.0	17.5	. .	. .	. .	10 42.50	− 4.94	. .	− 9.84	1 10 27.72	+ 0.39
	16	Comes Polaris, S.P.	A.	.	. .	. .	1.0	33.0	12.8	. .	. .	. .	. .	10 12.00	− 4.94	. .	− 9.84	1 9 57.22	. .
	17	α Virginis	A.	.	. .	. .	. .	. .	. .	. .	34.4	35.9	38.5	18 26.07	− 0.08	− 9.78	− 9.84	13 18 16.15	− 0.05
	18	A Cassiopeæ, S. P.	A.	3	12.0	4.9	0.5	42.6	36.8	31.1	13.3	9.0	1.3	21 36.83	− 0.40	. .	− 9.84	1 21 26.59	− 0.09
	19	ζ Virginis	A.	4	57.4	0.0	1.4	7.5	9.6	11.5	17.8	19.5	21.9	28 9.62	− 0.07	− 9.85	− 9.84	13 27 59.71	+ 0.01
	20	η Ursæ Majoris	A.	3	12.3	16.3	18.8	28.2	31.5	34.5	44.0	46.5	50.4	42 31.39	+ 0.05	. .	− 9.84	13 42 21.60	− 0.08
	21	η Bootis	A.	4	22.4	25.0	26.7	33.1	35.4	37.4	44.0	45.5	48.4	48 35.32	− 0.04	− 9.79	− 9.84	13 48 25.44	− 0.05
	22	50 Cassiopeæ, S. P.	A.	4	2.0	53.6	48.7	29.2	22.1	16.1	56.4	51.1	43.2	52 22.49	− 0.47	. .	− 9.84	1 52 12.18	− 0.10
	23	α Draconis	A.	3	31.3	37.2	41.1	55.8	0.5	5.3	19.5	23.5	29.4	1 0.40	+ 0.16	. .	− 9.84	14 0 50.72	− 0.12
	24	α Bootis	A.	3	37.0	39.6	41.2	47.7	50.0	52.1	58.4	0.2	3.0	9 49.91	− 0.03	− 9.84	− 9.84	14 9 40.04	+ 0.01
	25	ι Cassiopeæ, S. P.	A.	3	54.0	47.4	43.6	33.3	28.0	22.7	17.4	12.7	. .	18 22.85	− 0.38	. .	− 9.84	2 18 12.63	− 0.10
	26	ι Cassiop.Comes,S.P.	A.	3	55.2	49.0	45.0	34.5	29.5	24.0	18.8	13.7	. .	18 24.18	− 0.38	. .	− 9.84	2 18 13.96	. .
	27	5 Ursæ Minoris	A.	3	10.1	21.4	27.6	53.6	2.2	11.1	37.0	43.2	54.5	28 2.30	+ 0.40	. .	− 9.84	14 27 52.86	− 0.37
	28	ε Bootis	A.	3	10.9	14.0	15.7	22.6	25.0	27.2	34.1	36.0	38.8	39 24.92	− 0.01	− 9.90	− 9.84	14 39 15.07	+ 0.05
	29	α¹ Libræ	A.	.	22.8	25.5	27.1	. .	. .	. .	. .	45.5	. .	43 35.49	− 0.09	. .	− 9.84	14 42 25.56	. .
	30	α² Libræ	A.	3	34.2	37.0	38.4	. .	. .	. .	55.2	56.8	59.5	43 46.85	− 0.09	− 9.93	− 9.84	14 43 36.92	+ 0.07
	31	β Bootis	A.	.	53.7	57.1	59.1	7.1	9.9	12.6	20.9	22.8	26.2	57 9.93	+ 0.02	. .	− 9.84	14 57 0.11	− 0.07
	32	β Libræ	A.	3	53.8	56.4	58.0	4.3	6.4	8.4	14.5	16.2	18.6	10 6.29	− 0.08	− 9.80	− 9.84	15 9 56.37	− 0.05
	33	Cybele	A.	4	3.1	6.0	7.6	13.5	15.5	17.7	23.8	25.6	28.0	24 15.64	− 0.09	. .	− 9.84	15 24 5.71	. .
	34	Juno	A.	4	37.6	40.0	41.8	47.6	49.8	52.0	57.5	59.3	1.8	27 49.71	− 0.07	. .	− 9.84	15 27 39.80	. .
	35	α Serpentis	A.	.	45.6	48.1	49.6	. .	. .	. .	. .	. .	. .	37 57.86	− 0.06	− 9.86	− 9.84	15 37 47.96	+ 0.02
	36	Urania	A.	4	. .	. .	13.5	16.0	18.3	20.6	23.0	. .	. .	59 18.28	− 0.10	. .	− 9.84	15 59 8.34	. .
	37	Saturn I	A.	.	. .	. .	59.1	. .	3.5	. .	7.7	. .	. .	2 3.43	− 0.09	. .	− 9.84	16 1 53.50	. .
	38	Saturn II	A.	.	. .	. .	0.3	. .	4.6	. .	8.8	. .	. .	2 4.57	− 0.09	. .	− 9.84	16 1 54.64	. .
	39	Anonymous	A.	.	43.2	. .	47.8	51.3	. .	0.2	3.3	. .	8.1	13 55.65	− 0.07	. .	− 9.83	16 13 45.75	. .
27	40	Sun I, N.	E.	.	53.1	56.0	57.8	4.0	6.4	8.5	15.0	16.7	19.3	18 6.31	− 0.05	. .	− 9.64	4 17 56.62	. .
	41	Sun II, S.	E.	.	9.2	12.2	14.0	20.3	22.6	24.8	31.3	33.0	35.5	20 22.54	− 0.05	. .	− 9.64	4 20 12.85	. .
	42	Venus I, N. C.	E.	.	33.7	36.6	38.4	45.1	47.3	49.4	56.4	58.1	0.7	29 47.30	− 0.04	. .	− 9.64	7 29 37.69	+ 1.14
	43	Venus S., C.	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	44	α Canis Minoris	E.	.	. .	. .	. .	. .	. .	. .	41.0	42.6	45.1	32 32.84	− 0.07	. .	− 9.53	7 32 23.24	+ 0.02
	45	Moon I, N.	E.	.	24.3	27.1	28.7	35.3	37.4	39.5	45.8	47.4	50.2	39 37.30	− 0.06	. .	− 9.52	9 39 27.72	+69.40
29	46	Sun I, S.	A.	.	. .	8.6	10.9	13.1	15.3	17.6	22.3	23.6	26.5	26 13.20	+ 0.02	. .	− 9.39	4 26 3.83	. .
	47	Sun II, N.	A.	.	16.3	19.2	21.0	27.3	29.5	31.6	38.2	40.0	42.6	28 29.52	+ 0.02	. .	− 9.39	4 28 20.15	. .
30	48	α Canis Majoris	E.	.	15.6	18.1	20.0	26.1	28.2	30.3	36.8	38.5	40.1	39 28.19	+ 0.10	− 9.16	− 9.27	6 39 19.02	− 0.18
	49	α Geminorum	E.	.	4.6	7.5	9.6	16.9	19.1	21.4	28.8	30.5	33.5	26 19.10	+ 0.07	− 9.29	− 9.26	7 26 9.91	+ 0.23

33.34.36. Wire A used.
40.41. Wire B used.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent. Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″								° ′ ″		′ ″	° ′ ″	″
1	310 16	10 6.1	4.5	2.1	4.0	28	799	799	781	766	800	10.7	310 18 37.0	415	− 1 6.2	1 23 52.0	− 1.5
2																	
3	17 20	18.2	14.6	10.4	13.0	31	229	220	. .	. .	. .	10.7	17 21 50.7	. .	+ 17.3	68 28 29.2	− 2.6
4	17 52	19.8	16.8	13.0	14.3	32	. .	. .	. .	341	551	10.7	17 53 28.4	330	+ 17.8	69 0 7.4	− 2.7
5	10 20	9 24.8	22.5	19.9	19.2	24	. .	080	. .	929	. .	10.7	10 24 2.8	329	+ 10.1	61 30 34.1	− 0.6
6	39 14	10 11.8	9.5	5.0	5.6	26	. .	. .	. .	880	870	10.7	39 17 1.3	326	+ 45.1	90 24 7.6	− 2.1
7	13 54	10 16.5	14.5	10.5	11.4	25	560	. .	. .	. .	369	10.7	13 57 19.0	. .	+ 13.7	65 3 53.9	− 3.8
8	13 54	10 16.5	14.5	10.5	11.4	27	. .	447	. .	400	. .	10.7	13 56 48.9	307	+ 13.6	65 3 23.7	− 3.8
9																	
10																	
11	274 48	10 6.0	5.8	3.5	3.8	23	612	680	. .	641	778	10.2	274 51 53.2	409	− 9 41.8	325 48 32.6	− 1.1
12	359 48	12.0	10.0	7.1	7.0	23	609	. .	. .	. .	502	10.2	359 51 52.1	. .	− 0.1	50 58 13.2	+13.5
13	359 48	12.0	10.0	7.1	7.0	24	. .	530	. .	410	. .	10.2	359 51 37.9	415	− 0.1	50 57 59.0	− 0.7
14	43 40	10 16.5	14.6	10.7	12.0	27	. .	292	. .	102	. .	10.2	43 42 51.4	418	+ 53.8	94 50 6.4	− 1.0
15	307 28	7.1	6.5	3.5	5.0	27	310	294	327	289	239	10.2	307 30 57.8	419	− 1 13.2	358 36 5.8	− 0.6
16																	
17																	
18	288 28	10 7.5	6.5	4.4	5.0	26	281	380	. .	189	188	10.1	288 31 12.4	. .	− 2 46.8	339 34 46.8	− 1.0
19	38 44	10 17.1	15.5	12.4	11.0	22	. .	199	. .	061	. .	10.1	38 48 8.3	426	+ 45.3	89 55 14.8	− 1.0
20	348 52	10 13.5	10.5	8.9	8.4	25	769	691	. .	589*	510	10.1	348 55 18.5	. .	− 11.1	40 1 28.6	− 0.4
21	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . . .	431			
22	290 40	9.5	8.4	6.0	6.9	28	. .	103	119	. .	. .	10.1	290 42 43.1	434	− 2 28.3	341 46 36.0	+ 0.4
23	333 50	12.1	9.5	7.3	7.6	25	133	044	. .	040	970	10.1	333 53 29.3	434	− 27.7	24 59 22.8	− 1.8
24	18 58	10 9.8	7.0	3.4	4.4	27	061	975	. .	871	926	10.1	19 1 2.5	434	+ 19.5	70 7 43.2	+ 0.4
25																	
26																	
27	322 34	10 10.2	11.9	6.9	7.0	26	361	311	. .	280	329	10.1	322 37 10.6	439	− 43.2	13 42 48.6	− 3.7
28	11 42	10 12.3	11.3	8.0	8.0	25	122	105	. .	030	940	10.1	11 15 28.0	. .	+ 11.3	62 22 0.5	− 0.6
29																	
30	54 18	10 6.8	5.5	1.0	1.5	24	021	019	. .	848	832	10.1	54 21 50.9	440	+ 1 18.8	105 29 30.9	− 0.7
31	357 56	10 10.0	7.5	5.5	5.0	27	878	883	. .	779	770	10.0	357 58 48.5	446	− 2.0	49 5 7.7	− 2.4
32	47 42	10 12.3	11.2	7.0	7.2	22	. .	050	. .	940	. .	10.0	47 46 14.7	450	+ 1 2.4	98 53 38.3	− 0.6
33	52 14	10 9.1	7.0	2.5	3.6	31	. .	356	. .	398	. .	10.0	52 18 29.2	. .	+ 1 13.3	103 26 3.7	− 3.4
34	40 34	10 7.4	5.5	2.0	2.8	29	259	211	. .	120	031	10.0	40 39 4.4	453	+ 48.7	91 46 14.3	− 2.4
35	31 58	10 4.0	3.4	28.1	29.4	21	805	801	. .	721	712	10.0	32 2 26.6	456	+ 35.6	83 9 23.4	+ 0.3
36	62 30	10 16.5	15.0	11.4	11.9	30	216	309	. .	330	180	10.0	62 34 38.0	. .	+ 1 49.0	113 42 48.2	− 4.9
37																	
38																	
39	40 14	10 10.6	8.3	4.5	5.1	29	389	377	. .	495	419	10.0	40 19 28.3	459	+ 48.2	91 26 37.7	
40	17 8	11 12.9	12.1	8.0	8.8	27	470	375	. .	. .	. .	11.2	17 11 54.7	. .	+ 17.1	68 18 33.0	− 2.6
41	17 40	11 18.7	16.6	12.8	14.1	28	. .	. .	. .	413	344	11.2	17 43 31.7	325	+ 17.7	68 50 10.6	− 2.6
42	14 2	10 9.8	7.3	5.2	5.8	20	842	960	. .	. .	. .	11.2	14 6 36.6	. .	+ 13.8	65 13 11.6	− 4.0
43	14 2	10 9.8	7.3	5.2	5.8	18	. .	. .	. .	752	770	11.2	14 7 6.7	. .	+ 13.8	65 13 41.7	− 4.0
44	33 16	10 0.6	29.0	25.8	25.2	25	. .	. .	. .	625	555	11.2	33 20 34.2	. .	+ 39.2	84 27 34.6	+ 2.3
45	25 43	11 5.2	3.8	0.4	0.6	33	. .	350	. .	005	. .	11.0	25 45 1.5	. .	+ 26.8	76 51 49.5	
46	17 20	3.4	1.8	0.4	29.7	20	723	751	. .	. .	. .	11.6	17 24 45.8	. .	+ 17.4	68 31 24.4	− 2.6
47	16 48	10.6	8.6	5.4	6.0	18	. .	. .	. .	560	474	11.6	16 53 10.6	360	+ 16.9	67 59 48.7	− 2.5
48	55 22	5.0	3.4	0.5	29.5	28	320	400	. .	162	285	10.0	55 24 45.7	300	+ 1 19.4	106 32 26.3	− 1.9
49	6 40	9.8	7.3	5.2	5.8	26	. .	. .	. .	. .	595	10.0	6 33 7.1	. .	+ 6.5	57 39 34.8	− 0.1

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
45	− 25 36.9	+ 16 13.3

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
May 30	1	α Canis Minoris, (R.)	E.	.	20.1	22.7	24.3	30.2	32.4	34.5	40.5	42.5	45.0	32 32.47	+ 0.03	. .	− 9.26	7 32 23.24	+ 0.04
	2	Venus I	E.	.	51.0	54.1	55.8	2.3	4.5	6.7	13.4	15.5	18.2	39 4.61	+ 0.07	. .	− 9.26	7 38 55.42	+ 1.19
	3	Venus, S. C.	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	— . .	. .	. .	. .
	4	Moon I, N.	E.	.	. .	. .	38.7	. .	51.3	54.1	. .	56.0	57.3	26 26.04	+ 0.09	. .	− 9.21	12 26 16.92	+65.73
	5	32¹ Camelopardalis	E.	.	. .	. .	34.1	53.3	14.0	33.6	53.8	. .	. .	48 13.76	− 0.17	. .	− 9.21	12 48 4.38	− 8.35
	6	32² Camelopardalis	E.	.	. .	. .	42.0	2.0	22.4	41.4	1.9	. .	. .	48 21.94	− 0.17	. .	− 9.21	12 48 12.56	− 0.20
	7	Polaris, S. P.	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	22.0	10 39.40	+ 0.70	. .	− 9.20	1 10 30.92	+ 1.01
	8	ι Cassiopeæ, S. P.	E.	.	51.2	58.0	1.8	17.5	22.5	27.6	42.5	47.1	53.6	18 22.42	+ 0.10	. .	− 9.19	2 18 13.33	+ 0.50
	9	5 Ursæ Minoris	E.	.	10.2	21.4	28.0	53.2	2.2	10.3	36.7	42.8	53.6	28 2.04	+ 0.02	. .	− 9.19	14 27 52.87	− 0.19
	10	ε Bootis	E.	.	10.4	13.2	14.8	19.6	21.8	. .	. .	. .	. .	39 24.12	+ 0.07	− 9.19	− 9.19	14 59 15.00	− 0.01
	11	β Libræ	E.	.	. .	1.3	3.5	5.4	7.5	10.0	13.8	15.5	18.0	10 5.57	+ 0.09	− 9.24	− 9.18	14 9 56.48	+ 0.05
	12	Juno	E.	.	34.8	37.6	39.0	45.2	47.1	49.1	55.2	56.9	59.5	24 47.16	+ 0.09	. .	− 9.18	15 24 38.07	. .
	13	α Caronæ Borealis	E.	.	. .	. .	. .	. .	44.5	47.7	48.9	50.1	51.2	29 16.86	+ 0.07	− 9.13	− 9.18	15 29 7.75	− 0.05
	14	α Serpentis	E.	.	44.8	47.4	49.0	55.2	57.2	59.2	5.3	6.9	9.3	37 57.14	+ 0.08	− 9.26	− 9.18	15 37 48.04	+ 0.0[illegible]
	15	Saturn I	E.	.	36.0	39.1	40.9	. .	. .	. .	57.9	59.7	2.4	0 49.33	+ 0.10	. .	− 9.17	16 0 40.26	. .
	16	Saturn II	E.	.	. .	. .	46.4	48.4	50.6	52.8	55.0	. .	. .	0 50.64	+ 0.10	. .	− 9.17	16 0.41.57	. .
	17	δ Ophiuchi	E.	.	24.8	27.3	28.7	35.0	37.0	39.0	44.9	46.6	49.1	7 36.93	+ 0.09	− 9.16	− 9.17	16 7 27.85	+ 0.01
	18	Anonymous	E.	.	. .	. .	. .	. .	28.1	30.9	32.4	33.7	34.8	11 3.82	. .	. .	. .	. .	. .
	19	α Scorpii	E.	.	16.9	19.8	21.5	28.3	30.5	32.8	39.7	41.5	44.1	21 30.57	+ 0.11	− 9.13	− 9.17	16 21 21.51	0.03
31	20	θ Virginis	T.	.	5.1	7.7	9.2	15.5	17.4	19.5	25.7	27.1	29.7	3 17.43	+ 0.02	− 8.91	− 8.97	13 3 8.48	− 0.00
	21	Polaris, S. P.	T.	2	. .	. .	31.0	7.0	41.0	22.0	55.0	. .	. .	10 42.88	− 0.75	. .	− 8.97	1 10 33.16	+ 1.51
	22	Moon I	T.	3	0.5	3.1	5.0	11.1	13.2	15.3	21.5	23.1	25.8	19 13.18	+ 0.02	. .	− 8.97	13 19 4.23	+65.31
	23	η Bootis	T.	.	21.6	24.2	26.0	32.3	34.4	36.6	43.0	44.7	47.3	48 34.46	+ 0.03	− 9.03	− 8.97	13 48 25.52	+ 0.03
	24	Polaris	N.	3	. .	. .	54.5	18.5	42.5	5.0	. .	. .	. .	10 42.12	− 2.84	. .	− 8.89	1 10 30.39	− 0.65
	25	θ Ceti	N.	2	. .	. .	. .	. .	. .	. .	42.3	44.0	46.5	17 34.10	+ 0.07	− 8.84	− 8.89	1 17 25.38	+ 0.05
	26	η Piscium	N.	3	21.6	24.3	25.8	32.2	34.2	36.3	42.7	44.4	47.0	24 34.28	+ 0.04	− 8.94	− 8.89	1 24 25.43	+ 0.10
	27	β Arietis	N.	4	16.9	19.6	21.3	. .	. .	. .	38.6	40.2	43.0	47 29.93	+ 0.04	− 8.89	− 8.89	1 47 21.08	+ 0.01
	28	α Ceti	N.	3	19.0	21.8	23.1	27.1	31.3	35.4	39.5	41.0	43.6	55 31.31	+ 0.05	− 8.90	− 8.88	2 55 22.48	+ 0.04
June 1	29	Sun I, N.	N.	3	14.8	17.3	19.0	25.7	27.9	30.1	36.8	38.2	41.2	38 27.89	+ 0.04	. .	− 8.88	4 38 19.05	. .
	30	Sun II, S.	N.	2	31.3	34.1	35.8	42.4	44.8	46.8	53.5	55.2	57.9	40 44.64	+ 0.04	. .	− 8.88	4 40 35.80	. .
	31	Mercury I, (center)	N.	3	52.0	54.8	56.6	3.1	5.4	7.7	14.6	16.3	19.1	1 5.51	+ 0.03	. .	− 8.88	6 0 56.66	+ 0.22
	32	γ Geminorum	N.	2	0.7	3.4	5.0	11.3	13.4	15.6	22.2	23.6	26.3	30 13.50	+ 0.04	− 8.87	− 8.88	6 30 4.66	− 0.01
	33	α² Geminorum	N.	2	4.3	7.3	9.1	16.4	18.9	21.2	28.4	30.2	33.2	26 18.78	+ 0.02	− 8.93	− 8.87	7 26 9.93	+ 0.26
	34	α Canis Minoris, (R.)	N.	4	19.7	22.3	23.8	30.1	32.1	34.1	40.3	41.8	44.3	32 32.06	+ 0.01	. .	− 8.87	7 32 23.20	+ 0.01
	35	β Geminorum	N.	2	8.5	11.4	13.2	20.1	22.4	24.7	31.6	33.5	36.5	37 22.43	+ 0.03	− 8.76	− 8.87	7 37 13.59	− 0.11
	36	Venus I, S. C.	N.	1.2	37.4	40.1	41.7	48.6	50.9	53.1	59.7	1.2	4.3	44 50.78	+ 0.03	. .	− 8.87	7 44 41.94	+ 1.23
	37	Venus, N. L.	N.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	38	α Ursæ Majoris, (R.)	N.	4.5	16.1	21.7	24.8	38.3	42.6	47.0	0.2	3.5	9.2	55 42.60	− 0.17	. .	− 8.87	10 55 33.56	+ 0.10
	39	δ Leonis, (R.)	N.	4	1.5	4.2	6.0	12.5	14.7	17.0	23.6	25.0	27.8	7 14.70	− 0.02	. .	− 8.87	11 7 5.81	+ 0.04
	40	δ Crateris	N.	3	41.8	44.4	46.0	52.2	54.3	56.4	2.9	4.3	6.8	12 54.34	+ 0.08	− 8.90	− 8.87	11 12 45.55	+ 0.01
	41	λ Draconis	N.	3	. .	. .	. .	. .	. .	. .	5.1	9.8	17.2	23 41.31	− 0.12	. .	− 8.87	11 23 32.32	+ 0.41
	42	β Leonis, (R.)	N.	5	16.6	19.2	20.8	27.1	29.2	31.4	37.7	39.3	42.0	42 29.26	− 0.01	. .	− 8.87	11 42 20.38	+ 0.02
	43	γ Ursæ Majoris	N.	5	40.9	45.3	47.8	58.4	2.0	5.4	16.0	18.6	22.9	47 1.94	− 0.02	. .	− 8.87	11 47 53.03	+ 0.01
	44	ο Virginis	N.	5	27.4	30.0	31.5	37.8	39.8	42.0	48.1	49.7	52.2	58 39.83	+ 0.05	− 9.79	− 8.86	11 58 31.02	+ 0.87
	45	4 Draconis	N.	4	. .	. .	48.8	59.0	9.0	19.1	29.3	. .	. .	6 9.04	− 0.28	. .	− 8.86	12 6 59.90	+ 0.84
	46	η Virginis, (R.)	N.	4	8.1	10.5	12.0	18.2	20.3	22.4	28.4	30.0	32.5	13 20.27	+ 0.01	. .	− 8.86	12 13 11.42	+ 1.05
	47	32¹ Camelopard., (R.)	N.	3	. .	. .	. .	15.6	35.6	55.7	35.4	50.6	15.2	48 15.77	− 1.15	. .	− 8.86	12 48 5.76	− 6.64
	48	32² Camelopard., (R.)	N.	.	. .	. .	. .	22.9	42.7	2.5	42.8	58.1	23.1	48 23.10	− 1.15	. .	− 8.86	12 48 13.09	+ 0.69
	49	Polaris, S. P.	N.	4	. .	. .	23.0	1.0	36.0	14.5	51.5	. .	. .	10 36.88	+ 2.99	. .	− 8.86	1 10 31.01	− 0.44
	50	α Virginis, (R.)	N.	3	12.6	15.2	16.8	23.0	25.1	27.1	33.4	34.9	37.5	18 25.07	+ 0.03	. .	− 8.86	13 18 16.24	+ 0.07

4. Microscopes seem two revs. small. R. A. over D_3 and E.
5. Observed over wire A.
5.6. Zenith distance doubtful.
12. Bisection with wire B. N. P. D. seems one rev. small.
18. Observed for Phocæa; R. A. over set E.
28. Two zeros on sheet.
36. Seems five revs. too great.
44. Seems one rev. wrong in N. P. D.
44.45. Chronograph record seems 1ˢ wrong.
45. Seems two revs. wrong in N. P. D.
47.48.50. Bisections at sets B and D.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	146 38	9.7	12.3	7.4	5.3	29	. .	. .	. . .	. .	452	10.0	146 40 20.2	. .	− 36.2	84 26 37.2	+ 5.1
2	. .	12.8	11.3	6.8	7.8	21	633	. .	. .	. .	. .	. .					
3	. .	12.8	11.3	6.8	7.8	21	. .	. .	. .	295	300	. .					
4	38 52	10 21.7	19.5	16.5	15.3	28	. .	480	610	658	. .	10.0	38 54 55.2	. .	+ 45.0	90 2 1.4	
5	314 44	10 11.5	8.5	6.8	6.4	30	215	168	. .	. .	. .	10.0	314 46 11.7	. .	− 56.2	45 51 36.7	−20.5
6	314 44	10 11.5	8.5	6.8	6.4	32	. .	. .	. .	335	262	10.0	314 45 39.2	. .	− 56.2	45 51 4.2	−53.0
7	307 28	3.5	1.6	29.8	0.3	26	900	. .	. .	. .	. .	10.0	307 30 55.4	. .	− 1 12.6	358 36 4.0	− 1.8
8	285 42	10 8.3	7.6	5.2	6.1	26	895	890	. .	785	680	10.0	285 45 2.6	. .	− 3 15.7	336 48 8.1	− 1.3
9	322 34	7.3	5.2	3.6	4.0	26	555	540	530	590	625	10.0	322 37 9.3	. .	− 42.8	13 42 47.7	− 3.6
10	11 12	10 9.6	7.5	4.5	4.2	25	195	256	. .	360	455	10.0	11 15 27.3	400	+ 11.2	62 21 59.7	− 0.6
11	47 44	7.6	6.7	2.1	3.5	30	020	050	. .	920	030	10.0	47 46 16.7	. .	+ 1 1.7	98 53 39.6	+ 0.9
12	40 28	2.2	29.5	28.0	26.5	23	795	900	. .	890	720	10.0	40 29 27.7	. .	+ 47.9	91 36 36.8	− 2.4
13	11 40	12.0	10.7	6.4	6.5	23	. .	. .	. .	. .	780	10.0	11 43 47.2	. .	+ 11.7	62 50 20.1	+ 4.0
14	32 0	10 13.3	10.6	6.4	6.4	29	. .	042	. .	005	. .	10.0	32 2 27.6	. .	+ 35.2	83 9 24.0	+ 1.4
15																	
16																	
17	42 12	7.5	6.5	3.6	2.5	31	. .	570	. .	500	. .	10.0	42 13 53.2	. .	+ 51.1	93 21 5.5	− 0.2
18																	
19	64 56	5.0	3.0	29.5	29.8	24	525	560	. .	535	480	10.0	64 59 43.5	. .	+ 2 0.1	116 8 4.8	− 2.5
20																	
21																	
22																	
23																	
24	310 16	10 8.6	7.6	6.1	6.1	28	606	578	581	589	. .	13.4	310 18 39.9	450	− 1 6.8	1 23 54.3	− 0.2
25																	
26	24 10	11.4	9.8	6.3	6.3	25	480	431	. .	396	372	13.4	24 13 27.0	442	+ 25.5	75 20 13.7	0.0
27	18 40	12.7	11.3	7.9	8.4	24	161	138	. .	082	087	13.4	18 43 45.3	434	+ 19.2	69 50 25.7	+ 0.1
28	35 16	10.7	9.3	5.4	5.8	27	. .	730	. .	700	. .	13.4	35 18 52.4	408	+ 39.8	86 25 53.4	− 0.5
29	16 24	10 14.1	11.5	7.6	8.5	23	626	512	. .	. .	. .	9.0	16 27 49.8	. .	+ 16.4	67 34 27.5	− 2.5
30	16 56	10 18.3	15.4	12.2	13.1	24	. .	. .	. .	920	855	9.0	16 59 23.6	365	+ 17.0	68 6 1.8	− 2.5
31	13 14	8.1	6.2	3.7	3.7	23	728	680	. .	530	529	8.8	13 17 53.1	330	+ 13.1	64 24 27.4	− 1.8
32	22 20	12.5	10.4	6.5	6.9	27	. .	480	. .	352	. .	8.7	22 22 51.1	330	+ 22.8	73 29 35.1	− 1.0
33	6 40	10 15.3	13.2	9.7	9.1	26	280	250	. .	130	142	8.6	6 43 7.1	. .	+ 6.5	57 49 34.8	− 0.2
34	146 38	10 14.7	16.0	11.3	9.5	28	. .	785	. .	700	. .	8.6	146 40 26.7	. .	− 36.3	84 26 30.8	− 1.2
35	10 30	8.1	6.6	3.6	3.3	26	784	064	. .	060	001	8.6	10 33 1.5	. .	+ 10.3	61 39 33.0	0.0
36	14 56	11.0	9.2	5.0	6.2	25	548	447	. .	. .	. .	8.6	14 59 23.0	. .	+ 14.7	96 5 58.9	− 4.4
37	14 56	11.0	9.2	5.0	6.2	27	. .	. .	. .	584	464	8.6	14 58 49.4	314	+ 14.8	66 5 25.4	− 4.4
38	203 30	4.8	6.6	3.6	0.8	23	562	520	. .	388	307	8.4	203 33 55.5	350	+ 24.2	27 32 1.5	− 2.6
39	162 18	8.0	8.2	3.9	3.0	25	438	422	. .	313	286	8.3	161 21 25.0	. .	− 17.6	69 45 13.8	− 0.8
40	52 52	8.8	8.2	3.5	4.2	21	. .	142	. .	020	. .	8.3	52 56 30.2	. .	+ 1 13.4	104 4 4.8	− 2.0
41	328 48	13.7	12.7	10.6	10.0	28	. .	. .	862	. .	. .	8.3	328 50 25.8	. .	− 33.6	19 56 13.4	− 2.4
42	156 22	10.0	10.1	6.7	5.3	25	662	674	. .	585	535	8.3	156 25 19.0	. .	− 24.3	74 41 26.5	+ 0.1
43	344 24	8.2	6.5	3.6	3.6	23	. .	. .	028	011	006	8.3	344 28 0.9	370	− 15.5	35 34 6.6	− 0.9
44	29 22	11.2	10.1	6.4	6.1	25	170	138	. .	005	985	8.2	29 25 27.0	. .	+ 31.5	80 32 10.7	+13.5
45	320 30	8.8	7.1	5.8	4.3	24	. .	246	. .	258	220	8.2	320 33 41.9	. .	− 45.9	11 39 17.2	+29.2
46	141 8	9.5	8.9	5.8	2.5	26	985	980	. .	860	826	8.2	141 11 0.5	384	− 44.9	89 56 5.6	0.0
47	225 10	5.2	6.6	3.5	0.5	23	. .	. .	951	875	. .	8.0	225 13 48.7	394	+ 56.4	5 51 36.1	−20.9
48	225 10	5.2	6.6	3.5	0.5	25	. .	. .	130	. .	059	8.0	225 13 30.8	. .	+ 56.4	5 51 54.0	− 3.0
49	307 28	4.3	3.5	1.1	0.9	27	435	490	430	493	464	8.0	307 30 56.0	401	− 1 12.9	358 36 4.3	− 1.1
50	130 36	7.3	7.3	3.4	1.1	26	. .	. .	928	860	848	8.0	130 39 2.2	. .	− 1 5.3	100 28 24.3	+ 0.5

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
4	− 36 16.4	+ 15 50.9

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
June 1	1	ζ Virginis	N.	5	56.2	58.8	0.3	6.4	8.5	10.5	16.6	18.2	20.7	28 8.47	+ 0.06	− 8.87	− 8.86	13 27 59.67	0.00
	2	50 Cassiopeæ, S. P.	N.	4	42.2	50.4	55.2	15.1	21.3	28.0	47.5	52.6	0.6	52 21.43	+ 0.30	. .	− 8.86	1 52 12.87	+ 0.24
	3	α Draconis	N.	3	30.5	36.6	40.3	54.8	0.0	4.5	19.0	22.4	29.6	0 59.74	− 0.07	. .	− 8.86	14 0 50.81	+ 0.13
	4	α Bootis	N.	5	35.8	38.5	40.1	46.6	48.8	51.0	57.6	59.1	1.8	9 48.81	+ 0.04	− 8.84	− 8.86	14 9 39.99	− 0.01
	5	Moon I, N.	N.	4	34.1	35.7	39.9	42.0	44.1	46.2	48.4	52.5	54.0	12 44.10	+ 0.07	. .	− 8.86	14 12 35.31	+65.27
	6	θ Bootis	N.	3	32.6	36.9	39.5	49.4	52.6	56.0	6.3	8.7	12.8	20 52.76	− 0.02	. .	− 8.86	14 19 43.88	+ 0.13
	7	5 Ursæ Minoris	N.	4	10.6	21.5	27.7	53.7	2.6	10.8	36.8	42.9	54.0	28 2.29	− 0.21	. .	− 8.86	14 27 53.22	+ 0.26
	8	α² Libræ	N.	3	. .	. .	41.5	43.5	45.7	47.8	49.9	. .	. .	43 45.68	+ 0.07	− 8.92	− 8.86	14 43 36.89	+ 0.04
	9	β Ursæ Minoris	N.	2	. .	. .	3.1	11.6	19.4	26.7	34.5	. .	. .	51 19.06	− 0.18	. .	− 8.86	14 51 10.02	+ 0.04
	10	μ Bootis	N.	3	25.5	28.5	30.6	38.3	41.1	43.6	51.2	53.1	56.4	19 40.92	+ 0.01	− 8.84	− 8.86	15 19 32.07	− 0.02
	11	α Coronæ Borealis	N.	2	3.0	5.8	7.6	12.1	16.8	21.2	26.0	27.4	30.4	29 16.70	+ 0.03	− 8.93	− 8.86	15 29 7.87	+ 0.07
	12	Saturn I, S.	N.	4	59.8	2.5	4.2	. .	. .	. .	21.3	23.1	25.7	0 12.77	+ 0.08	. .	− 8.86	16 0 3.99	. .
	13	Saturn II, N.	N.	4	. .	. .	9.7	11.8	14.0	16.1	18.4	. .	. .	0 14.00	+ 0.08	. .	− 8.86	16 0 5.22	. .
	14	δ Ophiuchi	N.	4	24.4	26.9	28.5	34.6	36.6	38.7	44.9	46.2	48.9	7 36.63	+ 0.06	− 8.82	− 8.86	16 7 27.83	− 0.02
4	15	Sun I, N.	N.	1	. .	. .	41.8	44.0	46.1	48.2	50.4	. .	. .	50 46.10	+ 0.03	. .	− 8.53	4 50 37.60	. .
	16	Sun II, S.	N.	1	50.1	52.7	54.1	1.2	3.3	5.6	11.8	13.4	16.5	53 3.19	+ 0.03	. .	− 8.53	4 52 54.69	. .
	17	Venus I, S. C.	N.	2	35.7	38.6	40.3	46.8	49.2	51.5	57.9	59.4	2.3	52 49.08	+ 0.03	. .	− 8.50	7 52 40.61	+ 1.28
	18	Venus, N. L.	N.	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	19	η Virginis	N.	4	6.4	9.0	10.5	16.7	18.7	20.8	26.8	28.3	31.0	13 18.69	+ 0.05	− 8.41	− 8.46	12 13 10.38	+ 0.04
	20	κ Draconis	N.	4	. .	. .	. .	59.0	5.2	11.1	23.5	27.9	35.6	27 58.98	− 0.12	. .	− 8.45	12 27 50.41	− 0.17
	21	32¹ Camelopard., (R.)	N.	4	. .	14.2	33.9	53.2	. .	48.5	13.6	. .	. .	48 14.15	− 1.40	. .	− 8.45	12 48 4.30	− 7.55
	22	32² Camelopard., (R.)	N.	4	. .	22.2	41.4	1.0	. .	41.5	56.3	21.0	. .	48 21.65	− 1.40	. .	− 8.45	12 48 11.80	− 0.05
	23	θ Virginis	N.	4	4.7	7.2	8.7	14.9	17.0	19.0	25.0	26.6	29.2	3 16.92	+ 0.05	− 8.46	− 8.45	13 3 8.52	− 0.02
	24	Polaris, S. P.	N.	4	. .	. .	28.5	3.0	40.0	17.0	54.5	. .	. .	10 40.28	+ 2.98	. .	− 8.45	1 10 34.81	+ 0.76
	25	A Cassiopeæ, S. P.	N.	3	10.7	3.5	58.8	41.5	35.7	29.7	12.2	7.7	0.8	21 35.62	+ 0.29	. .	− 8.45	1 21 27.46	+ 0.22
	26	ζ Virginis, (R.)	N.	3	55.7	58.4	0.0	6.0	8.1	10.1	16.3	17.9	20.5	28 8.11	− 0.03	− 8.43	− 8.44	13 27 59.64	− 0.01
	27	50 Cassiopeæ, S. P.	N.	3	0.2	52.3	47.5	28.0	21.3	14.6	55.2	50.4	42.2	52 21.30	+ 0.32	. .	− 8.44	1 52 13.18	+ 0.35
	28	α Draconis	N.	3	30.3	36.2	40.0	54.2	59.2	4.1	18.5	22.0	28.3	0 59.20	− 0.07	. .	− 8.44	14 0 50.69	+ 0.10
	29	α Bootis, (R.)	N.	4	35.4	38.1	44.2	46.4	48.6	50.8	53.0	58.9	1.5	9 48.54	− 0.06	. .	− 8.44	14 9 40.04	+ 0.06
	30	β Bootis	N.	3	52.3	55.6	57.9	3.1	8.5	14.1	19.3	21.4	24.8	57 8.56	+ 0.01	. .	− 8.43	14 57 0.14	0.00
	31	48 Cephei, S. P.	N.	3	42.4	31.2	24.5	56.9	47.2	37.9	10.7	3.2	52.0	3 47.33	+ 0.40	. .	− 8.43	3 3 39.30	+ 0.57
	32	β Libræ, (R.).	N.	1.2	. .	. .	. .	3.0	4.9	6.9	9.1	. .	. .	10 4.95	− 0.01	. .	− 8.43	15 9 56.51	+ 0.02
	33	μ Bootis	N.	2	25.0	28.2	30.2	37.8	40.6	43.0	50.7	52.7	56.0	19 40.47	+ 0.02	− 8.41	− 8.43	15 19 32.06	− 0.03
	34	α Coronæ Bor., (R.)	N.	3	2.4	5.4	7.3	14.1	16.3	18.6	25.6	27.3	30.1	29 16.34	− 0.08	. .	− 8.42	15 29 7.84	+ 0.04
	35	α Serpentis	N.	3	46.8	48.2	52.4	54.3	56.6	58.5	0.4	4.6	6.1	37 56.43	+ 0.04	− 8.50	− 8.42	15 37 48.05	+ 0.08
	36	Saturn (ring) I, S.	N.	2.3	5.3	8.0	9.5	. .	. .	. .	26.6	28.3	31.1	59 18.13	+ 0.06	. .	− 8.42	15 59 9.77	. .
	37	Saturn (ring) II	N.	.	. .	. .	16.5	18.7	20.7	23.0	25.3	. .	. .	59 20.84	+ 0.06	. .	− 8.42	15 59 12.48	. .
	38	Moon I, N.	N.	3.2	. .	. .	24.5	26.6	28.7	30.8	33.1	. .	. .	51 28.74	+ 0.06	. .	− 8.41	16 51 20.39	+66.01
	39	Moon II	N.	1	. .	. .	. .	. .	. .	11.5	12.6	13.7	20.4	53 40.72	+ 0.06	. .	− 8.41	16 53 32.37	. .
5	40	Mercury, center	E.	.	42.6	45.5	47.1	51.6	53.8	56.1	58.4	0.8	. .	29 56.16	+ 0.03	. .	− 8.16	6 29 48.03	+ 0.08
	41	α Canis Majoris.	E.	.	14.7	17.4	19.0	25.2	27.3	29.4	35.8	37.3	40.0	39 27.34	− 0.01	− 8.21	− 8.16	6 39 19.17	− 0.02
	42	Venus I, N. C.	E.	.	3.3	6.3	7.8	14.4	16.6	18.8	25.5	27.3	30.0	55 16.67	+ 0.02	. .	− 8.15	7 55 8.54	+ 1.30
	43	Venus, S. C.	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	44	Polaris, S. P..	E.	.	10.0	24.0	23.5	. .	. .	. .	. .	. .	. .	10 48.57	− 0.92	. .	− 8.11	1 10 39.54	+ 4.62
	45	ζ Virginis	E.	.	. .	15.9	17.5	20.0	32.0	35.3	36.3	37.4	38.3	28 7.74	+ 0.01	− 8.11	− 8.11	13 27 59.64	− 0.01
	46	η Ursæ Majoris, (R.)	E.	.	10.8	14.5	17.1	23.4	26.5	29.5	32.4	35.6	. .	42 29.56	− 0.05	. .	− 8.11	13 42 21.50	− 0.02
	47	50 Cassiopeæ, S. P.	E.	.	0.6	52.7	47.5	28.5	21.4	15.1	55.5	50.7	42.5	52 21.61	− 0.03	. .	− 8.11	1 48 13.47	+ 0.59
	48	α Bootis, (R.)	E.	.	35.3	37.8	39.6	46.1	48.1	50.1	56.9	58.5	1.2	9 48.18	− 0.20	− 8.00	− 8.10	14 9 39.88	− 0.09
	49	ι Cassiopeæ, S. P.	E.	.	53.3	46.2	42.7	27.1	21.5	16.6	1.5	57.1	50.9	18 21.88	− 0.01	. .	− 8.10	2 18 13.77	+ 0.55
	50	5 Ursæ Minoris.	E.	.	9.5	20.8	26.2	51.3	0.3	10.3	35.4	41.3	51.9	28 0.78	+ 0.13	. .	− 8.10	14 27 52.85	+ 0.10

7.9.20.25.27.31. Seems two revs. wrong.
21.22. R. A. over C_3, C_4, C_5, and D, and N. P. D. at C_3 and C_5.
39. R. A. observed over wires E_3, E_4, E_5, and VII.
41. Wire A used.
45. Sets D and E in R. A.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° '	r. "	"	"	"							"	° ' "		' "	° ' "	"
1	38 44	9.5	8.1	4.4	3.0	22	436	481	. .	404	375	8.0	38 48 9.4	402	+ 45.1	89 55 15.7	+ 0.2
2	290 40	6.5	6.0	4.4	3.8	28	. .	249	. .	214	. .	7.9	290 42 41.4	404	− 2 27.2	341 46 35.4	+ 0.7
3	333 50	8.5	7.0	4.8	3.2	25	360	265	. .	210	278	7.9	333 53 27.2	. .	− 27.5	24 59 20.9	− 2.3
4	18 58	8.5	6.7	3.6	2.5	26	. .	. .	950	. .	. .	7.9	19 1 1.1	. .	+ 19.4	70 7 41.7	− 0.2
5	47 49	12 0.9	0.0	25.1	25.2	28	855	647	510	322	167	7.9	47 51 44.8	. .	+ 1 2.1	98 59 8.1	. .
6	346 22	10 10.6	8.6	5.7	4.6	23	100	050	. .	872	030	7.9	346 25 59.9	. .	− 13.6	37 32 7.5	− 1.1
7	322 34	8.8	7.8	5.7	4.5	24	350	272	. .	270	260	7.9	322 37 40.6	414	− 42.9	13 43 18.9	+28.1
8	54 18	8.6	8.1	4.0	2.8	23	. .	. .	595	. .	. .	7.9	54 21 51.8	. .	+ 1 18.4	105 29 31.4	− 0.2
9	324 8	5.6	3.6	2.3	1.5	21	. .	. .	602	578	643	7.9	324 12 24.6	. .	− 40.6	15 18 5.2	− 2.6
10	1 0	8.8	7.0	4.3	3.0	27	075	032	. .	908	925	7.9	1 3′ 0.5	. .	+ 1.0	52 9 22.7	− 1.3
11	11 40	9.1	8.4	5.3	3.5	24	. .	. .	070	. .	. .	7.7	11 43 43.6	424	+ 11.7	62 50 16.5	+ 0.8
12	57 14	7.2	6.2	2.0	1.6	21	172	. .	. .	. .	025	7.7	57 18 31.1	. .	+ 1 27.6	108 26 19.9	− 0.8
13	57 14	7.2	6.2	2.0	1.6	22	. .	302	. .	229	. .	7.7	57 18 13.2	421	+ 1 27.6	108 26 2.0	− 0.8
14	42 10	9.1	7.8	4.0	3.1	23	640	. .	. .	. .	519	7.7	42 13 51.7	. .	+ 51.1	93 21 4.0	− 1.5
15	16 2	10 18.8	16.5	12.0	11.6	22	652	600	. .	. .	. .	8.0	16 5 59.0	. .	+ 16.4	67 12 36.6	− 2.4
16	16 34	10 17.8	15.8	11.5	10.7	24	. .	. .	. .	553	482	8.0	16 37 29.0	450	+ 16.9	67 44 7.2	− 2.5
17	15 32	9.1	6.9	3.6	3.2	24	303	180	. .	. .	. .	8.0	15 35 43.7	. .	+ 15.7	66 42 20.6	− 4.8
18	15 32	9.1	6.9	3.6	3.2	26	. .	. .	. .	327	338	8.0	15 35 9.2	429	+ 15.7	66 41 46.1	− 4.8
19	38 46	9.5	8.2	5.2	3.8	27	270	159	. .	095	115	8.0	38 48 56.6	480	+ 45.9	89 56 3.7	− 1.7
20	328 20	9.4	7.6	6.0	5.3	26	. .	. .	. .	825	825	8.0	328 23 1.1	. .	− 35.2	19 28 47.1	− 2.6
21	225 10	6.7	9.0	5.4	2.8	23	. .	. .	940	933	. .	8.0	225 13 46.5	492	+ 57.7	5 51 37.0	−19.7
22	225 10	6.7	9.0	5.4	2.8	25	. .	. .	125	096	. .	8.0	225 13 28.5	. .	+ 57.7	5 51 55.0	− 1.7
23	43 40	8.7	7.7	3.6	4.5	27	752	769	. .	674	625	8.0	43 42 48.8	. .	+ 54.8	94 50 4.8	− 2.1
24	307 28	5.1	4.7	2.8	2.0	27	277	232	266	232	246	8.0	307 30 58.4	501	− 1 14.6	358 36 5.0	0.0
25	288 28	5.4	5.2	3.4	2.8	26	088	059	. .	052	101	8.0	288 31 15.5	. .	− 2 49.5	339 34 47.2	+ 0.3
26	141 8	8.5	8.2	4.5	2.4	23	780	. .	. .	. .	600	8.0	141 11 50.4	500	− 46.1	89 55 16.9	+ 1.7
27	290 40	7.9	7.5	5.2	5.4	27	984	025	. .	973	925	8.0	290 42 44.1	. .	− 2 30.9	341 46 34.5	+ 0.3
28	333 50	7.9	6.7	4.6	3.1	25	416	360	. .	229	235	8.0	333 50 27.1	512	− 28.2	24 56 20.1	− 2.4
29	160 56	5.6	5.8	2.7	0.6	27	. .	332	. .	120	185	8.0	160 58 58.3	. .	− 19.9	70 7 42.8	+ 1.4
30	357 56	12.4	9.9	7.1	6.8	27	. .	. .	610	. .	. .	8.1	357 58 47.2	. .	− 2.0	49 5 6.6	− 1.3
31	296 6	10.2	8.8	7.1	7.1	22	528	630	. .	522	565	8.1	296 10 5.1	. .	− 1 57.1	347 14 29.2	+ 1.0
32	132 10	8.0	8.0	3.2	2.2	23	. .	. .	. .	964	981	8.1	132 13 45.8	538	− 1 3.8	98 53 39.2	+ 0.7
33	1 0	9.3	6.7	3.7	4.3	27	088	098	. .	962	933	8.1	1 2 59.9	. .	+ 1.1	60 9 22.2	− 1.1
34	168 12	2.5	3.3	0.2	27.5	22	338	344	. .	330	198	8.1	168 16 16.5	. .	− 12.0	62 50 16.8	+ 1.8
35	31 58	10.2	8.4	3.6	5.3	21	488	525	. .	394	314	8.1	32 2 24.1	541	+ 36.3	83 9 21.6	− 0.3
36	57 12	7.2	. .	. .	2.2	22	. .	. .	342	. .	295	8.1	57 16 12.1	. .	+ 1 29.8	108 24 3.1	− 0.8
37																	
38	56 58	11 20.9	20.3	14.5	14.9	24	. .	. .	. .	250	. .	8.2	57 2 57.1	530	+ 1 28.8	108 10 47.1	. .
39																	
40	13.28	7.5	6.4	6.8	6.3	31	945	. .	. .	930	855	8.2	13 32 17.9	. .	+ 13.5	64 38 52.6	− 2.0
41	55 22	10 9.1	7.5	4.2	3.0	27	945	058	. .	835	838	8.2	55 24 45.7	. .	+ 1 21.3	106 32 28.2	+ 1.1
42	15 44	10 14.5	11.0	8.7	7.7	25	569	648	. .	. .	. .	8.2	15 47 18.2	. .	+ 15.8	66 53 55.2	− 4.9
43	15 44	10 14.5	11.0	8.7	7.7	23	. .	. .	. .	197	260	8.2	15 47 52.1	375	+ 15.8	66 54 29.1	− 4.9
44	307.26	10 10.0	9.0	5.0	6.7	19	008	042	064	. .	. .	8.1	307 30 59.8	420	− 1 13.4	358 36 7.6	+ 2.7
45	38 44	12.7	12.2	8.6	8.0	22	. .	. .	. .	170	185	8.1	38 48 8.1	. .	+ 45.4	89 55 14.7	− 0.4
46	191 1	16.0	17.4	12.0	12.3	27	. .	. .	. .	. .	042	8.1	191 4 48.6	. .	+ 11.1	40 1 21.5	− 5.5
47	290 40	6.9	8.2	5.5	6.0	27	073	088	. .	010	800?	8.1	290 42 57.7	. .	− 2 28.4	341 46 50.5	+16.3
48																	
49	285 42	7.0	6.1	4.2	4.5	26	730	612	602	665	695	8.1	285 45 5.5	. .	− 3 17.6	336 48 9.1	+ 0.4
50	322 34	8.8	7.0	5.0	6.1	26	410	402	308	340	378	8.1	322 37 8.8	. .	− 43.3	13 42 46.7	− 3.2

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	' "	' "
5	− 42 6.7	+ 15 34.1
38	− 46 25.1	+ 15 9.4

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
														m. s.	s.	s.	s.	° ′ ″	s.
1868. June 5	1	α^2 Libræ	E.	.	32.2	35.0	36.5	40.7	42.8	44.9	. .	. .	. .	43 44.94	− 0.01	− 8.11	− 8.10	14 43 36.83	− 0.02
	2	α Coronæ Bor., (R.)	E.	.	3.4	5.1	6.9	13.6	16.0	18.2	25.2	27.1	29.8	29 16.14	− 0.10	. .	− 8.09	15 29 7.95	+ 0.15
	3	α Serpentis	E.	.	43.8	46.3	48.0	54.0	56.0	58.0	4.4	6.0	8.5	37 56.11	+ 0.01	− 8.15	− 8.09	15 37 48.03	+ 0.05
	4	Urania	E.	.	56.1	59.2	1.0	7.7	. .	12.0	18.7	21.0	23.0	49 9.84	− 0.02	. .	− 8.09	15 49 1.73	. .
	5	Saturn I, S.	E.	.	47.9	50.5	52.2	. .	. .	. .	9.3	11.0	13.0	59 0.75	− 0.02	. .	− 8.09	15 58 52.64	. .
	6	Saturn II, N.	E.	.	. .	. .	57.9	0.0	2.1	4.3	6.5	. .	. .	59 2.16	− 0.02	. .	− 8.09	15 58 54.05	. .
	7	Anonymous	E.	.	29.1	31.4	33.0	38.6	40.8	43.0	49.3	50.8	52.9	5 40.99	+ 0.01	. .	− 8.09	16 5 32.91	. .
	8	τ Herculis	E.	.	38.7	42.5	44.5	53.7	56.5	59.4	8.4	10.8	14.3	15 56.53	+ 0.05	. .	− 8.09	16 15 48.49	+ 0.07
	9	α Scorpii	E.	.	16.0	18.7	20.5	27.3	29.6	31.7	38.7	40.4	43.2	21 29.57	− 0.03	− 7.97	− 8.09	16 21 21.45	− 0.11
	10	Polaris	T.	.	. .	. .	2.0	26.0	49.0	13.0	37.0	. .	. .	10 47.68	− 3.00	. .	− 8.21	1 10 35.47	+ 0.14
	11	β Arietis	T.	3	16.4	19.1	20.7	27.2	29.4	31.6	38.1	39.8	42.5	47 29.42	+ 0.04	− 8.25	− 8.21	1 47 21.25	+ 0.05
	12	α Arietis	T.	3	39.2	42.1	43.7	50.3	52.5	54.7	1.4	3.0	5.8	59 52.52	+ 0.04	− 8.30	− 8.21	1 59 44.35	+ 0.10
	13	α Ceti	T.	3	18.5	21.0	22.7	28.7	30.8	32.7	38.9	40.5	43.0	55 30.76	+ 0.06	− 8.26	− 8.21	2 55 22.61	+ 0.07
6	14	Sun I, N.	T.	3	46.7	49.5	51.0	57.8	0.1	2.3	9.0	10.6	13.4	59 0.04	+ 0.04	. .	− 8.21	4 58 51.87	. .
	15	Sun II, S.	T.	.	4.0	6.8	8.5	15.1	17.5	18.5	26.3	27.9	30.6	1 17.23	+ 0.04	. .	− 8.21	5 1 9.06	. .
	16	Mercury I, (center)	T.	3	22.1	24.9	26.4	33.4	35.6	37.9	44.8	46.4	49.3	36 35.64	+ 0.03	. .	− 8.21	6 36 27.46	+ 0.24
	17	α^2 Geminorum	T.	3	3.7	6.7	8.4	15.6	18.1	20.4	27.7	29.5	32.5	26 18.07	+ 0.02	− 8.23	− 8.21	7 26 9.88	+ 0.22
	18	α Canis Minoris	T.	3	18.9	21.5	23.0	29.1	31.2	33.3	39.4	41.0	43.5	32 31.21	+ 0.06	− 8.12	− 8.21	7 32 23.06	− 0.11
	19	β Geminorum	T.	3	7.9	10.8	12.5	19.4	21.7	24.2	31.0	32.8	35.7	37 21.78	+ 0.03	− 8.13	− 8.21	7 37 13.60	− 0.08
	20	Venus I, N.	T.	3	25.1	28.0	29.5	36.3	38.5	40.6	47.1	49.0	51.7	57 38.42	+ 0.04	. .	− 8.21	7 57 30.25	+ 1.23
	21	Venus, S.	T.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
8	22	Sun I, S.	N.	2	2.0	4.6	6.4	13.1	15.2	17.3	24.1	25.7	28.6	7 15.22	+ 0.04	. .	− 7.96	5 7 7.30	. .
	23	Sun II, N.	N.	2	19.2	22.0	23.8	30.6	32.6	34.8	41.5	43.3	46.0	9 32.64	+ 0.04	. .	− 7.96	5 9 24.72	. .
	24	Polaris, S. P.	N.	4	1.0	17.0	14.0	26.0	. .	. .	. .	. .	. .	10 39.70	+ 6.25	. .	− 7.91	1 10 38.04	+ 0.70
	25	ζ Virginis	N.	4	55.2	57.7	59.3	5.4	7.5	9.4	15.6	17.1	19.6	28 7.42	+ 0.10	− 7.89	− 7.90	13 27 59.62	− 0.01
	26	η Ursæ Majoris, (R.)	N.	3	. .	. .	23.4	26.5	29.6	32.8	36.2	. .	. .	42 29.70	− 0.07	. .	− 7.90	13 42 21.73	+ 0.26
	27	α Draconis, (R.)	N.	1.3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	28	α Bootis	N.	4	34.9	37.6	39.2	45.7	47.8	50.0	56.5	58.1	0.8	9 47.84	+ 0.05	− 7.92	− 7.90	14 9 39.89	− 0.07
	29	Moon II, N.	N.	3	58.4	. .	2.8	9.3	11.7	13.7	20.5	. .	24.5	25 11.56	+ 0.15	. .	− 7.86	20 25 3.85	−64.15
9	30	Sun II	E.	.	. .	. .	35.9	38.2	40.5	42.5	44.8	. .	. .	13 40.38	+ 0.06	. .	− 7.67	5 13 32.77	−68.81
	31	Polaris, S. P.	N.	3	. .	. .	27.0	1.5	39.0	15.5	. .	. .	. .	10 38.77	+ 7.38	. .	− 7.65	1 10 38.50	+ 0.44
	32	β Bootis	E.	.	51.6	55.1	57.2	5.2	8.0	10.6	19.0	21.0	24.1	57 7.98	− 0.02	. .	− 7.65	14 57 0.31	+ 0.20
	33	48 Cephei, S. P.	E.	.	. .	23.1	3.9	56.6	45.4	36.9	. .	. .	. .	3 46.11	+ 1.01	. .	− 7.65	3 3 39.47	+ 0.37
	34	β Libræ	E.	.	51.5	54.2	55.8	1.9	4.0	6.1	12.4	13.7	16.4	10 4.00	+ 0.17	− 7.75	− 7.65	15 9 56.52	+ 0.09
	35	μ^1 Bootis	E.	.	24.1	27.1	29.2	. .	. .	. .	50.1	52.0	55.7	19 39.63	+ 0.01	− 7.55	− 7.65	15 19 31.97	− 0.10
	36	μ^2 Bootis	E.	.	. .	. .	35.9	38.5	41.1	43.9	46.3	. .	. .	19 41.10	+ 0.01	. .	− 7.65	15 19 33.44	+ 1.37
	37	α Coronæ Borealis	E.	.	1.6	4.7	6.4	13.2	15.6	17.8	24.6	26.3	29.1	29 15.48	+ 0.04	. .	− 7.65	15 29 7.87	+ 0.07
11	38	α Tauri	E.	.	15.7	18.4	20.0	26.4	28.4	30.4	36.9	38.4	41.0	28 28.40	0.00	− 7.87	− 7.88	4 28 20.52	− 0.01
12	39	Sun I, N.	E.	.	35.7	38.3	40.0	46.8	49.0	51.1	57.8	59.6	2.4	23 48.97	− 0.01	. .	− 7.88	5 23 41.08	. .
	40	Sun II, S.	E.	.	53.1	56.2	57.9	4.3	6.7	8.9	15.5	17.1	20.2	26 6.66	− 0.01	. .	− 7.88	5 25 58.77	. .
	41	α Canis Majoris	E.	.	14.2	16.9	18.5	24.8	27.0	29.1	35.4	37.0	39.5	39 26.93	+ 0.02	− 7.83	− 7.88	6 39 19.07	− 0.12
	42	δ Canis Majoris	E.	.	54.9	57.8	59.5	4.2	. .	13.2	17.7	19.4	21.5	3 8.52	+ 0.03	. .	− 7.88	7 3 0.67	− 0.17
	43	Mercury I	E.	.	23.7	26.3	28.0	34.6	36.9	39.1	45.9	47.5	50.4	11 36.93	− 0.01	. .	− 7.88	7 11 29.04	+ 0.27
	44	α^1 Geminorum	E.	.	3.1	6.0	7.7	12.6	14.9	17.2	19.7	22.1	. .	26 17.37	− 0.02	. .	− 7.88	7 26 9.47	− 0.18
	45	α^2 Geminorum	E.	.	. .	. .	. .	. .	. .	. .	27.3	29.2	32.3	26 17.75	− 0.02	− 7.88	− 7.88	7 26 9.85	+ 0.20
	46	α Canis Minoris	E.	.	18.6	21.1	22.7	28.8	31.0	33.0	39.1	40.6	42.2	32 30.90	+ 0.01	− 7.77	− 7.88	7 32 23.03	− 0.13
	47	β Geminorum	E.	.	7.4	10.5	12.2	19.2	21.5	23.9	30.8	32.5	35.4	37 21.49	− 0.01	− 7.81	− 7.88	7 37 13.60	− 0.07
	48	Venus I, N. C.	E.	.	16.4	19.2	21.0	27.3	29.6	31.8	38.4	40.0	42.8	9 29.61	0.00	. .	− 7.88	8 9 21.73	+ 1.42

3.8. Wire A used.
4.7.42. Wire B used.
7. Observed for Phocæa.
33. C_4, C_3, C_2, C_1 and B_3 in R. A.
39. Sun had shone on telescope about two minutes.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	54 18	8.5	7.8	3.5	2.5	23	635	650	. .	590	532	8.1	54 21 52.0	. .	+ 1 18.9	95 29 32.1	+ 0.6
2	168 12	11.4	12.5	8.8	7.0	21	740	710	. .	550	650	8.1	168 16 17.2	. .	− 11.8	44 50 15.8	+ 1.0
3	31 58	2.3	1.0	25.6	27.8	31	880	876	. .	858	820	8.1	32 2 26.5	. .	+ 35.5	83 9 23.2	+ 1.4
4	61 58	4.0	3.5	29.2	0.6	24	. .	. .	. .	160	380	8.1	61 59 14.5	. .	+ 1 45.4	113 7 21.1	− 4.9
5	57 12	10.8	10.7	5.4	6.6	.	. .	. .	. .	110	. .	8.1	57 15 40.7	. .	+ 1 27.9	108 23 29.8	− 0.8
6	57 12	10.8	10.7	5.4	6.6	25	. .	. .	. .	. .	640	8.1	57 15 16.9	. .	+ 1 27.9	108 23 6.0	− 0.8
7	35 0	13.8	13.0	8.8	8.5	33	. .	. .	. .	335	610	8.1	34 58 44.7	. .	+ 39.7	86 5 45.6	
8	352 12	13.5	10.5	8.4	8.4	33	. .	300	. .	308	. .	8.1	352 15 53.5	. .	− 7.7	43 22 7.0	− 1.3
9	64 56	10 8.5	6.6	3.6	3.5	23	. .	915	. .	910	. .	8.1	64 59 47.3	. .	+ 2 0.9	116 8 9.4	+ 1.8
10	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . . . .	397			
11	18 40	17.1	16.1	11.4	11.3	23	. .	630	. .	555	. .	8.2	18 43 44.2	383	+ 18.9	69 50 24.3	− 0.8
12	16 0	17.5	15.8	11.0	11.0	25	. .	442	. .	348	. .	8.2	16 3 16.8	381	+ 16.1	67 9 54.1	− 0.3
13	35 16	22.1	20.9	15.1	15.0	26	815	753	. .	664	672	8.2	35 18 51.9	357	+ 39.3	86 25 52.4	− 0.7
14	15 50	11.0	9.0	4.7	5.1	25	489	491	. .	. .	. .	8.2	15 53 22.5	. .	+ 15.7	66 59 59.4	− 2.4
15	16 22	14.0	11.3	7.1	7.0	26	. .	. .	. .	954	960	8.2	16 24 56.0	319	+ 16.2	67 31 33.4	− 2.4
16	13 38	10.6	9.3	4.5	5.2	29	038	002	. .	802	814	8.2	13 40 29.5	293	+ 13.3	64 47 4.0	− 2.0
17	6 40	19.4	16.5	11.9	11.6	25	. .	920	. .	950	. .	8.2	6 43 7.6	292	+ 6.4	57 49 35.2	+ 0.1
18	33 16	14.4	13.1	7.2	7.4	24	. .	496	. .	398	. .	8.2	33 19 34.5	. .	+ 35.9	84 46 31.6	+ 0.1
19	10 30	16.2	14.8	10.0	9.7	26	. .	590	. .	427	. .	8.2	10 33 1.0	283	+ 10.2	61 39 32.4	− 0.7
20	15 56	9.5	9.0	15.3	16.5	24	480	. .	. .	. .	402	8.2	15 59 32.8	. .	+ 15.6	67 6 9.6	− 5.1
21	15 56	9.5	9.0	15.3	16.5	22	. .	068	. .	061	. .	8.2	16 0 8.9	266	+ 15.6	67 6 45.7	− 5.1
22	16 10	18.8	17.8	12.4	12.0	23	072	060	. .	. .	. .	8.8	16 13 52.6	. .	+ 16.0	67 20 29.8	− 2.4
23	15 38	14.8	13.7	9.4	9.4	21	. .	. .	. .	228	162	8.8	15 42 22.7	317	+ 15.5	66 48 59.4	− 2.4
24																	
25	38 44	15.6	15.1	9.5	8.5	22	. .	271	. .	161	. .	8.8	38 48 7.5	391	+ 45.0	89 55 13.7	− 1.2
26	191 2	13.1	13.9	8.5	6.3	27	830	. .	734	650	608	8.8	191 4 44.5	. .	+ 11.0	40 1 25.7	− 0.8
27	206 2	4.6	7.5	3.0	29.9	20	. .	. .	975	902	830	8.8	206 6 34.5	. .	+ 27.5	14 59 19.2	− 2.5
28	18 58	12.4	11.1	6.3	5.8	26	915	850	. .	734	722	8.8	19 1 0.8	397	+ 19.3	70 7 41.3	+ 0.5
29	56 30	12.5	11.8	6.8	0.1	19	479	529	602	600	670	8.8	56 34 50.0	420	+ 1 25.2	107 42 36.4	
30																	
31																	
32	357 56	15.4	13.6	10.0	9.2	27	595	580	508	440	. .	9.0	357 58 47.0	. .	− 2.0	49 5 6.2	− 0.6
33	296 6	9.8	9.2	6.5	5.8	23	. .	735	. .	. .	. .	9.0	296 9 49.0	. .	− 1 54.9	347 14 15.3	−11.8
34	47 42	10 24.8	24.2	19.5	19.2	21	. .	. .	. .	126	. .	9.0	47 46 13.7	. .	+ 1 2.4	98 53 37.3	− 1.0
35	1 0	17.5	15.0	10.5	10.8	26	. .	. .	. .	532	. .	9.0	1 2 59.9	450	+ 1.0	52 9 22.1	0.0
36																	
37	11 40	10 26.0	24.8	20.5	19.7	23	. .	160	. .	090	. .	9.0	11 43 43.5	. .	+ 11.8	62 50 16.5	+ 2.6
38	22 36	10 12.6	12.5	7.8	7.0	27	339	395	. .	255	225	9.8	22 38 53.0	. .	+ 23.3	73 45 37.5	− 1.3
39	15 22	16.1	13.7	10.0	10.7	25	500	517	. .	. .	. .	9.8	15 25 18.9	340	+ 15.2	66 31 55.3	− 2.3
40	15 54	10 15.8	13.6	9.3	10.4	27	. .	. .	. .	182	141	9.8	15 56 52.0	. .	+ 15.8	67 3 29.0	− 2.4
41	55 22	17.6	16.3	11.2	11.0	27	775	685	. .	650	563	9.8	55 24 43.1	335	+ 1 20.0	106 32 24.3	− 1.4
42	65 2	13.7	12.3	7.7	9.0	24	878	. .	. .	. .	660	9.8	65 3 1.4	. .	+ 1 58.1	116 11 20.7	− 0.8
43	14 54	10 10.6	10.3	6.0	5.2	22	590	635	. .	445	391	9.8	14 58 8.3	. .	+ 14.8	66 4 44.3	− 2.5
44	6 40	17.0	16.3	11.1	10.3	26	135	090	. .	. .	. .	9.8	6 43 8.8	. .	+ 6.5	57 49 36.5	+ 1.0
45	6 40	17.0	16.3	11.1	10.3	26	. .	. .	. .	238	228	9.8	6 43 4.9	. .	+ 6.5	57 49 32.6	− 2.9
46	38 16	10 14.0	12.8	7.0	7.7	24	800	785	. .	645	670	9.8	33 19 32.0	. .	+ 36.3	84 26 29.5	− 1.6
47	10 30	10 18.4	17.4	13.2	12.3	24	. .	. .	. .	405	385	9.8	10 33 1.7	. .	+ 10.3	61 39 33.2	− 0.1
48	17 12	10 17.9	16.8	11.2	12.0	24	595	520	. .	. .	. .	9.8	17 15 31.9	330	+ 17.1	68 22 10.2	− 6.0

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	′ ″
29	− 45 5.5	+ 14 47.9

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
June 12	1	Venus, S. C.	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . 7 .	. .
	2	β Corvi	E.	.	23.5	26.3	28.0	34.5	36.7	49.0	45.6	47.3	50.0	27 36.77	+ 0.03	− 7.94	− 7.88	12 27 28.92	+ 0.12
	3	θ Virginis	E.	.	4.2	6.6	12.2	14.2	16.3	18.4	20.4	26.1	28.6	3 16.33	+ 0.01	− 7.90	− 7.88	13 3 8.46	− 0.01
	4	Polaris, S. P.	E.	.	. .	. .	35.0	10.5	46.0	25.0	58.0	. .	. .	10 46.80	+ 2.44	. .	− 7.88	1 10 41.36	+ 1.13
	5	ζ Virginis	E.	.	55.0	57.9	59.3	5.4	7.4	9.4	15.7	17.3	19.6	28 7.44	+ 0.01	− 7.86	− 7.88	13 27 59.57	− 0.02
	6	η Ursæ Majoris, (R.)	E.	.	10.4	14.6	16.8	26.1	29.3	31.6	42.1	44.3	48.1	42 29.26	− 0.05	. .	− 7.88	13 42 21.33	− 0.06
	7	η Bootis	E.	.	20.2	23.0	24.6	31.1	33.3	35.3	41.9	43.6	46.1	48 33.23	0.00	. .	− 7.88	13 48 25.35	− 0.06
	8	α Draconis	E.	.	. .	. .	. .	48.3	58.4	3.1	57.6	. .	. .	0 58.17	− 0.10	. .	− 7.88	14 0 50.19	− 0.17
	9	α Bootis, (R.)	E.	.	. .	. .	43.5	45.6	47.8	50.1	52.2	. .	. .	9 47.84	0.00	. .	− 7.88	14 9 39.96	+ 0.03
	10	ι Cassiopeæ, S. P.	E.	.	. .	. .	32.7	27.1	22.0	17.1	10.1	. .	. .	18 21.80	+ 0.17	. .	− 7.88	2 18 14.09	+ 0.54
	11	5 Ursæ Minoris	E.	.	8.2	19.7	26.1	51.4	0.0	8.8	34.5	41.0	51.9	28 0.18	− 0.21	. .	− 7.88	14 27 51.90	− 0.34
	12	ε Bootis	E.	.	9.1	12.0	13.7	20.5	22.8	25.2	32.2	33.9	36.7	39 22.90	− 0.01	− 7.95	− 7.88	14 39 15.01	+ 0.06
	13	α¹ Libræ	E.	.	20.4	23.1	24.8	. .	. .	. .	41.7	43.2	46.0	43 33.22	+ 0.02	. .	− 7.88	14 43 25.36	. .
	14	α² Libræ	E.	.	31.9	34.7	36.1	. .	. .	. .	53.2	54.7	57.3	43 44.65	+ 0.02	− 7.86	− 7.88	14 43 36.19	− 0.04
	15	β Bootis	E.	.	52.0	55.1	57.2	5.5	8.0	10.6	19.2	20.9	24.2	57 8.06	− 0.03	. .	− 7.88	14 57 0.15	+ 0.06
	16	Saturn I	E.	.	48.0	50.6	52.2	. .	. .	. .	9.2	11.0	13.9	57 0.82	+ 0.02	. .	− 7.88	15 56 52.96	. .
	17	Saturn II	E.	.	. .	. .	57.8	0.0	2.2	4.3	6.6	. .	. .	57 2.18	+ 0.02	. .	− 7.88	15 56 54.32	. .
	18	δ Ophiuchi	E.	.	23.3	25.9	27.4	33.3	35.5	37.5	43.8	45.3	47.9	7 35.54	+ 0.01	− 7.62	− 7.88	16 7 27.67	− 0.24
	19	Moon II, N.	E.	.	12.7	14.9	16.6	23.1	25.1	27.2	33.2	35.0	37.5	39 25.04	+ 0.01	. .	− 7.88	23 39 17.17	−62.2
	20	α Andromedæ	E.	.	29.2	32.0	33.9	40.7	43.0	45.3	52.3	54.1	56.9	1 43.00	− 0.01	− 7.97	− 7.88	0 1 35.15	+ 0.09
	21	γ Pegasi	E.	.	22.5	25.2	26.7	33.1	35.1	37.3	43.6	45.3	47.8	6 35.18	0.00	− 7.98	− 7.88	0 6 27.30	+ 0.05
	22	Polaris	T.	.	. .	. .	. .	. .	52.0	16.0	41.0	. .	. .	10 53.30	− 1.18	. .	− 8.01	1 10 44.11	+ 3.50
	23	θ Ceti	T.	3	21.2	23.8	25.4	31.5	33.7	35.7	41.9	43.5	46.0	17 33.63	+ 0.05	− 7.99	− 8.01	1 17 25.67	+ 0.01
	24	η Piscium	T.	3	21.0	23.7	25.2	31.6	33.7	35.8	42.2	43.7	46.4	24 33.70	+ 0.04	− 8.00	− 8.01	1 24 25.73	+ 0.07
	25	α Ceti	T.	3	18.4	20.8	22.4	28.6	30.5	32.6	38.7	40.3	42.7	55 30.56	+ 0.04	− 7.87	− 8.01	2 55 22.59	− 0.10
13	26	Sun I, S.	T.	.	44.5	47.5	49.4	55.4	57.7	0.4	6.8	8.6	11.3	27 57.96	+ 0.03	. .	− 8.01	5 27 49.98	. .
	27	Sun II, N.	T.	.	2.5	5.3	6.9	13.9	16.0	18.3	24.8	26.6	29.3	30 15.96	+ 0·03	. .	− 8.01	5 30 7.95	. .
	28	Mercury I, (center)	T.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	29	α Canis Minoris	T.	.	18.7	21.2	23.0	29.0	31.0	33.0	39.2	40.7	43.5	32 31.03	+ 0.04	− 7.93	− 8.01	7 32 23.06	− 0.10
	30	β Geminorum	T.	.	7.6	10.5	12.4	19.2	21.6	23.9	30.8	32.6	35.5	37 21.57	− 0.03	− 7.98	− 8.01	7 37 13.59	− 0.07
	31	Venus I, N.	T.	.	50.1	52.9	54.5	1.0	3.3	5.4	11.7	13.6	16.3	11 3.20	+ 0.04	. .	− 8.01	8 10 55.23	+ 1.44
	32	Venus, S.	T.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	33	θ Virginis	T.	.	4.1	6.7	8.3	14.4	16.5	18.5	24.6	26.2	28.7	3 16.45	+ 0.05	− 8.04	− 8.01	13 3 8.40	+ 0.03
	34	Polaris, S. P.	T.	2	. .	. .	42.0	13.0	51.0	25.0	. .	. .	. .	10 50.78	+ 1.29	. .	− 8.01	1 10 44.06	+ 3.04
	35	γ² Ursæ Minoris	T.	3	. .	. .	55.0	1.6	8.1	15.0	21.7	. .	. .	21 8.25	− 0.05	. .	− 8.01	15 21 0.22	+ 0.14
	36	α Cor. Borealis, (R.)	T.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	37	α Serpentis	T.	3	43.6	46.3	47.7	53.9	56.0	58.1	4.2	5.7	8.3	37 55.78	− 0.04	− 7.96	− 8.01	15 37 47.93	− 0.05
	38	Saturn I, S.	T.	3	31.7	34.4	36.1	. .	. .	. .	53.0	54.9	57.6	56 44.62	+ 0.05	. .	− 8.01	15 56 36.66	. .
	39	Saturn II	T.	.	. .	. .	41.5	43.5	45.7	48.0	50.2	. .	. .	56 45.78	+ 0.05	. .	− 8.01	15 56 37.82	. .
	40	Phocæa	T.	3	11.2	13.7	15.5	23.6	25.5	27.5	31.6	33.4	35.9	59 25.32	+ 0.05	. .	− 8.01	15 59 17.36	. .
	41	α Scorpii	T.	.	16.0	18.7	20.6	27.4	29.6	32.0	38.8	40.3	43.3	21 29.63	+ 0.05	− 8.05	− 8.01	16 21 21.67	+ 0.06
	42	15 Draconis	T.	3	51.5	58.5	3.5	20.4	26.4	32.3	49.2	53.2	0.5	28 26.17	− 0.03	. .	− 8.01	16 28 18.13	− 0.14
	43	α Camelopard., S. P.	T.	3	. .	. .	. .	8.6	3.5	58.4	. .	. .	. .	41 3.50	+ 0.12	. .	− 8.01	4 40 55.61	+ 0.24
	44	Thetis	T.	.	13.5	15.7	17.6	24.1	26.1	28.1	34.5	36.1	38.5	50 26.02	+ 0.05	. .	− 8.01	16 50 18.06	. .
	45	α Herculis	T.	3	35.2	37.8	39.4	45.8	47.9	50.0	56.3	57.8	0.5	8 47.86	+ 0.04	− 8.06	− 8.01	17 8 39.89	+ 0.05
	46	Eunomia	T.	3	51.6	54.7	56.6	3.8	6.4	9.0	16.3	18.0	21.2	19 6.40	+ 0.06	. .	− 8.01	17 18 58.45	. .
	47	Diana	T.	.	41.1	43.8	46.0	53.7	56.0	58.5	5.9	8.1	11.2	28 56.03	+ 0.06	. .	− 8.01	17 27 48.08	. .
	48	Polyhymnia	T.	.	33.2	35.9	38.1	44.7	46.9	49.3	56.3	57.7	0.8	42 46.99	+ 0.05	. .	− 8.01	17 42 39.03	. .
	49	γ² Sagittarii	T.	.	16.2	19.1	21.0	27.9	30.3	32.7	39.8	41.5	44.6	57 30.34	+ 0.05	− 8.05	− 8.01	17 57 22.38	+ 0.01
	50	μ Sagittarii	T.	.	49.5	52.2	54.0	0.4	2.6	4.7	11.2	13.0	15.7	6 2.59	+ 0.05	− 8.07	− 8.01	18 5 54.63	+ 0.06

1.9.18.29. Seems one rev. wrong.
5. Seems five revs. wrong.
13. Wire B used.
26.44.47.48. Wire A used.
33. Seems two revs. wrong.
35.43. Bisections at sets B and D.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Simpiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	17 12	10 17.9	16.8	11.2	12.0	22	. .	. .	. .	892	885	9.8	17 15 54.8	. .	+ 17.1	68 22 33.1	− 6.0
2	61 30	10 9.0	9.1	3.3	4.8	30	. .	335	. .	400	. .	9.8	61 32 9.3	370	+ 1 42.3	112 40 12.8	0.0
3	43 40	13.7	13.5	9.5	10.8	27	275	290	. .	225	170	9.8	43 42 51.9	. .	+ 53.4	94 50 6.5	+ 0.1
4	307 28	6.0	5.6	2.4	4.5	27	400	370	345	380	400	9.8	307 30 56.9	. .	− 1 12.7	358 36 5.4	+ 1.0
5	38 44	12.3	10.3	6.0	7.5	27	478	532	. .	360	390	9.8	38 46 51.8	. .	+ 45.0	89 53 58.0	−76.6
6	191 2	11.8	12.4	8.3	7.8	27	. .	804	. .	725	. .	9.8	191 4 45.4	. .	+ 11.0	40 1 24.8	− 1.0
7	160 8	5.0	4.5	1.2	0.0	29	. .	. .	. .	620	585	9.8	160 10 23.8	. .	− 20.2	70 56 17.6	− 1.4
8	206 4	5.5	7.0	3.5	1.8	28	. .	720	. .	730	. .	9.8	206 6 35.9	. .	+ 27.6	24 59 17.7	− 3.2
9	160 56	10 11.3	12.7	7.8	7.5	27	. .	. .	. .	. .	800	9.8	160 58 44.4	. .	− 19.4	70 7 56.2	+15.9
10	285 42	8.7	7.2	4.5	6.6	26	760	750	715	790	725	9.8	285 45 3.6	. .	− 3 16.5	336 48 8.3	+ 0.4
11	322 34	9.6	9.8	6.8	8.8	26	. .	575	. .	. .	. .	9.8	322 37 7.5	. .	− 43.0	13 42 45.7	− 2.7
12	11 12	12.2	10.5	6.5	6.5	25	510	380	. .	310	230	9.8	11 15 24.0	. .	+ 11.2	62 21 56.4	− 1.4
13	54 18	13.5	12.5	8.8	8.7	24	300	. .	. .	. .	262	9.8	54 22 38.0	. .	+ 1 18.6	105 30 17.8	
14	54 18	13.5	12.5	8.8	8.4	23	. .	430	. .	. .	. .	9.8	54 22 51.1	. .	+ 1 18.6	105 30 30.9	− 0.5
15	357 54	10 13.9	11.0	8.6	8.6	19	928	930	. .	802	805	9.8	357 58 46.4	. .	− 2.0	49 5 5.6	− 0.5
16																	
17																	
18	42 12	14.3	13.3	8.5	9.4	30	185	220	. .	125	140	9.8	42 14 7.6	. .	+ 51.6	93 21 20.4	+15.9
19	43 54	3.0	2.5	28.8	28.3	25	. .	828	040	168	. .	9.8	43 47 22.0	. .	+ 55.2	95 4 38.4	
20	10 28	3.8	4.0	0.4	29.1	24	120	130	. .	890	930	9.8	10 31 51.5	. .	+ 10.7	61 38 23.4	+ 0.7
21	24 22	15.0	14.3	9.7	9.2	21	785	758	. .	748	702	9.8	24 26 15.9	. .	+ 26.0	75 33 3.1	+ 1.0
22																	
23	47 42	14.9	12.6	9.7	7.7	29	. .	. .	. .	035	018	9.9	47 44 24.3	443	+ 1 2.2	98 51 47.7	− 3.9
24	24 10	19.5	17.5	12.6	13.6	24	. .	880	. .	812	. .	9.9	24 13 24.9	438	+ 25.4	75 20 11.5	− 0.5
25	35 16	10.4	9.0	4.4	3.9	27	. .	. .	. .	670	693	9.9	35 18 49.2	402	+ 39.8	86 25 50.2	− 1.8
26	15 50	8 28.2	25.2	22.4	20.9	35	378	. .	. .	. .	. .	9.9	15 54 10.5	. .	+ 15.8	67 0 47.5	− 2.3
27	15 20	9 0.4	2.6	24.3	24.0	34	. .	. .	. .	. .	008	9.9	15 21 51.6	352	+ 15.2	66 28 28.0	− 2.3
28	15 12	9 4.6	7.6	0.5	1.0	37	. .	. .	. .	538	518	9.9	15 14 51.7	308	+ 15.0	66 21 27.9	− 2.6
29	33 16	10 6.9	5.5	0.0	1.0	32	. .	008	. .	912	. .	9.9	33 19 48.3	. .	+ 36.2	84 26 45.7	+14.6
30	10 30	10 1.8	0.4	26.0	25.4	35	. .	. .	. .	. .	270	9.9	10 33 1.6	318	+ 10.2	61 39 33.0	− 0.4
31	17 26	10 17.2	16.0	10.8	10.4	28	. .	. .	. .	. .	822	9.9	17 28 24.7	320	+ 17.4	68 35 3.3	− 6.2
32	17 26	10 17.2	16.0	10.8	10.4	26	. .	243	. .	. .	. .	9.9	17 29 6.8	320	+ 17.4	68 35 45.4	− 6.2
33	43 40	15.5	15.1	9.0	13.7	29	. .	. .	. .	228	151	10.0	43 42 19.8	379	+ 53.3	94 49 34.3	−32.1
34	307 28	11.8	10.5	7.5	11.3	27	172	252	150	033	093	10.0	307 30 55.0	382	− 1 12.6	358 36 3.6	− 0.8
35	326 32	17.4	15.8	12.6	13.8	23	. .	356	. .	313	. .	10.0	326 35 49.1	433	− 37.3	17 41 33.0	+ 0.3
36	168 12	10 25.1	24.8	20.5	22.4	20	. .	. .	840	774	723	10.0	168 16 18.7	. .	− 11.7	62 50 14.2	+ 1.1
37																	
38	57 6	12.0	11.2	6.4	10.4	23	. .	. .	. .	312	328	10.0	57 9 52.8	. .	+ 1 27.3	108 17 41.3	− 0.8
39																	
40	33 8	13.0	11.0	5.4	9.2	19	. .	152	. .	185	. .	10.0	33 12 57.7	437	+ 37.1	84 19 56.0	− 5.0
41	64 58	8.3	7.7	2.4	7.4	31	. .	818	. .	680	. .	10.0	64 59 46.9	439	+ 2 0.7	116 8 8.8	+ 0.9
42	329 48	10.3	8.4	5.3	8.8	27	. .	720	728	706	. .	10.0	329 50 48.8	. .	− 32.9	20 56 37.1	+ 1.2
43	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . . .	443			
44	53 28	9.8	8.5	3.6	6.8	21	. .	623	. .	406	. .	10.0	53 34 58.4	. .	+ 1 16.8	104 42 36.4	− 6.2
45	24 18	7.5	5.0	0.0	4.5	29	. .	176	. .	035	. .	10.0	24 20 31.3	463	+ 25.8	75 27 18.3	+ 0.6
46	71 34	13.0	11.7	5.9	10.8	26	942	978	. .	721	731	10.0	71 36 59.4	. .	+ 2 49.4	122 46 10.0	− 4.5
47	74 22	12.8	12.8	6.7	10.1	27	. .	. .	. .	022	820	10.0	74 27 31.3	465	+ 3 21.6	125 37 14.1	− 4.3
48	65 28	9.3	7.5	2.5	7.8	28	. .	550	. .	410	. .	10.0	65 33 12.2	. .	+ 2 4.7	116 41 38.1	− 6.0
49	69 12	20.6	19.2	13.5	17.5	20	. .	998	. .	938	. .	10.0	69 16 22.0	. .	+ 2 29.5	120 25 12.7	− 0.5
50	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . . .	473			

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S	
	Paraliax.	Semi-diam.
	′ ″	′ ″
19	− 38 0.1	+ 15 1 .0

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
June 13.	1	δ Ursæ Minoris . .	T.	.	. .	. .	12.0	48.0	22.0	56.0	31.0	. .	. .	15 21.92	− 0.45	. .	− 8.01	18 15 13.46	+ 0.14
	2	γ Pegasi	T.	.	22.6	25.2	27.0	33.2	35.3	37.4	43.7	45.3	48.0	6 35.30	+ 0.04	− 8.12	− 8.01	0 6 27.33	+ 0.04
	3	Moon II . . .	T.	.	11.5	14.1	15.7	21.8	23.9	26.0	32.4	33.9	36.5	27 23.98	+ 0.04	. .	− 8.01	0 27 16.01	−62.75
	4	β Ceti	T.	3	53.1	55.8	57.4	3.9	6.0	8.1	14.6	16.3	19.1	37 6.03	+ 0.05	− 8.09	− 8.01	0 36 58.07	+ 0.11
	5	ε Piscium . . .	T.	3	1.7	4.3	5.8	12.0	14.1	16.3	22.3	24.0	26.4	56 14.10	+ 0.04	− 8.04	− 8.01	0 56 6.13	− 0.02
	6	Polaris	T.	.	. .	. .	8.0	31.0	55.0	17.0	40.0	. .	. .	10 54.48	− 1.18	. .	− 8.01	1 10 44.29	+ 2.87
14	7	Polaris	N.	3	. .	. .	6.0	30.0	54.0	15.0	. .	. .	. .	10 54.20	− 4.73	. .	− 8.07	1 10 41.40	− 0.00
	8	Moon II . . .	N.	4	25.1	27.7	29.3	35.6	37.6	39.6	46.0	47.5	50.2	16 37.62	+ 0.13	. .	− 8.07	1 16 29.68	−63.56
	9	η Piscium . . .	N.	4	21.2	23.8	35.4	31.7	33.8	35.9	42.2	43.8	46.4	24 33.80	+ 0.11	− 8.14	− 8.07	1 24 25.84	+ 0.12
	10	ο Piscium . . .	N.	4	. .	. .	31.8	33.8	35.8	37.8	42.0	43.5	46.2	38 33.77	+ 0.13	− 8.11	− 8.07	1 38 25.83	− 0.02
	11	β Arietis	N.	4	16.4	19.1	20.7	25.1	29.4	33.6	38.2	39.7	42.5	47 29 41	+ 0.10	− 8.05	− 8.07	1 47 21.44	− 0.02
			N.																
	12	η Tauri	N.	3	33.0	35.8	37.4	42.0	46.4	50.9	55.2	56.8	59.6	39 46.34	+ 0.09	− 8.11	− 8.07	3 39 38.36	+ 0.04
	13	ζ Persei	N.	3	46.9	48.7	53.4	55.9	58.3	0.5	3.0	7.8	9.6	45 58.23	+ 0.07	− 8.12	− 8.07	3 45 50.23	+ 0.06
	14	α Tauri	N.	3	15.8	18.3	20.1	26.5	28.7	30.8	37.0	38.6	41.3	28 28.57	+ 0.11	− 8.10	− 8.07	4 25 20.61	+ 0.03
15	15	Sun I, N. . . .	N.	.	3.5	6.1	8.0	14.2	16.7	19.0	25.4	27.3	30.1	36 16.70	+ 0.09	. .	− 8.07	5 36 8.72	. .
	16	Sun II, S. . . .	N.	.	. .	. .	29.9	32.3	34.6	36.8	38.9	. .	. .	38 34.50	+ 0.09	. .	− 8.07	5 38 26.52	. .
	17	γ Geminorum . .	N.	3	0.0	2.6	4.1	10.6	12.6	14.7	21.2	22.7	25.4	30 12.64	+ 0.11	− 8.03	− 8.07	6 30 4.68	− 0.03
	18	Mercury I, mean .	N.	3.1	34.2	37.0	38.5	45.3	47.4	49.7	56.3	58.0	0.8	25 47.47	+ 0.09	. .	− 8.08	7 25 39.48	+ 0.29
	19	α Canis Minoris .	N.	3	18.8	21.2	22.8	29.0	31.1	33.1	39.2	42.8	43.4	32 31.04	+ 0.14	− 8.04	− 8.08	7 32 23.10	− 0.06
	20	β Geminorum . .	N.	3	7.7	10.7	17.0	19.3	21.7	24.1	26.3	32.7	35.7	37 21.69	+ 0.07	− 8.10	− 8.08	7 37 13.68	+ 0.02
	21	Venus I, N. L. .	N.	3.2	34.1	37.0	38.1	45.2	47.3	49.6	56.0	57.7	0.4	13 47.27	+ 0.10	. .	− 8.08	8 13 39.29	+ 1.48
	22	Venus, S. . . .	N.	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	23	Polaris, S. P. .	N.	.	7.0	22.0	18.5	. .	. .	. .	10.7	. .	24.0	10 44.91	+ 6.95	. .	− 8.10	1 10 43.76	. .
	24		N.	5	. .	. .	32.5	7.0	45.0	21.3	58.5	. .	. .						
	25	ζ Virginis . . .	N.	5	55.1	57.7	59.3	5.4	7.4	9.4	15.5	17.2	19.6	28 7.40	+ 0.19	− 8.02	− 8.10	13 37 59.47	− 0.09
	26	η Bootis	N.	5	20.2	23.1	24.7	31.1	33.2	35.4	42.9	43.6	46.2	48 33.27	+ 0.13	− 8.06	− 8.10	13 48 25.30	− 0.08
	27	α Draconis, (R.). .	N.	4	29.6	35.8	39.3	53.8	58.8	3.4	18.0	21.7	27.7	0 58 68	− 0.30	. .	− 8.10	14 0 50.28	+ 0.03
	28	α Bootis	N.	5	34.9	37.6	39.2	45.7	48.0	50.1	56.5	58.1	1.0	9 47.90	+ 0.13	− 8.12	− 8.10	14 9 39.93	+ 0.03
	29	ι Cassiopeæ, S. P. .	N.	3	52.6	46.1	42.1	26.9	21.6	16.5	1.0	57.0	50.6	18 21.60	+ 0.58	. .	− 8.10	2 18 14.08	+ 0.36
	30	5 Ursæ Minoris, (R.)	N.	3	. .	. .	44.3	52.7	1.5	9.6	18.4	. .	. .	28 1.30	− 0.69	. .	− 8.10	14 27 52.51	+ 0.36
	31	β Ursæ Minoris, (R.)	N.	4	. .	. .	. .	. .	18.3	25.8	49.1	54.9	4.7	51 18.18	− 0.61	. .	− 8.10	14 51 9.47	+ 0.14
	32	β Libræ, (R,) . .	N.	3	52.0	54.6	56.1	. .	. .	. .	. .	. .	. .	10 4.37	+ 0.18	. .	− 8.10	15 9 56.45	+ 0.03
	33	γ Ursæ Minoris. .	N.	5	28.1	36.5	41.8	1.9	8.6	15.2	35.3	40.4	48.8	21 8.51	− 0.34	. .	− 8.10	15 21 0.37	+ 0.37
	34	α Coronæ Bor., (R.)	N.	3	2.1	4.9	6.7	13.6	16.0	18.1	25.0	26.7	29.6	29 15.86	+ 0.03	. .	− 8.10	15 29 7.79	+ 0.01
	35	α Serpentis . . .	N.	4	43.6	46.2	47.7	53.9	56.0	58.1	4.2	5.7	8.3	27 55.97	+ 0.17	− 8.16	− 8.10	15 37 48.04	+ 0.06
	36	ζ Ursæ Minoris. .	N.	5	. .	. .	42.7	52.6	2.5	12.6	22.7	. .	. .	49 2.62	− 0.60	. .	− 8.10	15 48 53.92	+ 0.22
	37	δ Scorpii	N.	4	29.0	31.7	33.3	40.0	42.2	44.4	51.0	52.7	55.4	52 42.19	+ 0.26	− 8.14	− 8.10	15 52 34.35	+ 0.03
	38	τ Herculis . . .	N.	3	38.8	42.6	45.0	53.7	56.6	59.7	8.5	10.7	14.5	15 56.68	+ 0.01	. .	− 8.10	16 15 48.59	+ 0.19
	39	α Scorpii	N.	4	. .	. .	24.8	27.2	29.5	31.8	34.0	. .	. .	21 29.46	+ 0.28	− 8.10	− 8.10	16 21 21.64	+ 0.02
	40	15 Draconis . . .	N.	5	. .	. .	14.8	21.0	26.7	32.2	38.0	. .	. .	28 26.54	− 0.25	. .	− 8.10	16 28 18.19	− 0.03
	41	Elpis	N.	1.2	36.4	39.3	40.7	47.3	49.4	51.0	57.0	59.0	1.3	52 49.04	+ 0.22	. .	− 8.10	16 52 41.16	. .
	42	ε Ursæ Minoris. .	N.	5	. .	. .	21.8	38.8	52.1	6.8	22.3	. .	. .	59 52.36	− 1.35	. .	− 8.10	16 59 42.91	+ 0.18
	43	α Herculis . . .	N.	5	35.1	37.8	39.3	45.8	47.9	50.0	56.2	57.7	0.4	8 47.80	+ 0.14	− 8.08	− 8.10	17 8 39.84	− 0.02
	44	Eunomia . . .	N.	2.3	28.8	31.9	33.7	41.2	43.4	45.7	53.1	54.9	57.8	16 43.39	+ 0.30	. .	− 8.10	17 16 35.59	. .
	45	Diana	N.	2	. .	. .	22.6	25.1	27.7	30.2	32.9	. .	. .	25 27.70	+ 0.31	. .	− 8.10	17 25 19.91	. .
	46	Polyhymnia . .	N.	1	. .	. .	41.9	44.1	46.6	48.8	50.8	. .	. .	40 46.44	+ 0.28	. .	− 8.11	17 40 38.61	. .
	47	η Serpentis . . .	N.	3	26.5	29.3	30.8	36.8	38.9	40.9	47.0	48.5	51.0	14 38.86	+ 0.20	− 8.10	− 8.11	18 14 30.95	0.00
	48	ι Aquilæ	N.	4	59.1	1.6	3.3	9.4	11.6	13.7	19.8	21.4	23.9	28 11.53	+ 0.21	− 8.08	− 8.11	18 28 3.63	+ 0.01
	49	α Lyræ	N.	3	. .	. .	35.8	38.5	41.2	43.7	49.1	50.9	54.2	32 38.52	+ 0.05	− 8.09	− 8.11	18 32 30.46	− 0.02
	50	51 Cephei, S. P. .	N.	3	40.0	46.0	14.3	51.0	7.3	. .	. .	. .	. .	37 25.42	+ 3.61	. .	− 8.11	6 37 20.92	+ 0.27

18. The bisections made by first bringing wire *b* on S. L, and then wire *a* on N. L.
21. Last bisection made 20^s after passing VII.
30.31.33. Bisections at sets B and D.
41.44.45.46. Wire A used.
50. C_2, C_1, and B in R. A.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	. .	. .	. .	. .	. .			. .	. .	. .	. .	. .	. . . .	474			
2	24 22	14.4	13.4	8.1	8.4	21	880	912	. .	774	768	10.0	24 26 15.7	472	+ 25.9	75 33 2.8	+ 0.9
3																	
4	57 32	17.0	16.4	11.2	11.3	27	829	822	. .	615	612	10.0	57 34 42.6	452	+ 1 29.1	108 42 32.9	— 0.2
5	31 38	7.4	7.0	1.0	1.9	21	. .	893	. .	878	. .	10.0	31 42 21.6	441	+ 35.0	82 49 17.8	+ 1.1
6	310 16	6.5	6.6	3.2	4.7	28	430	404	455	372	430	10.0	310 18 40.9	430	— 1 6.4	1 23 55.7	0.0
7	310 16	10 11.2	10.7	6.0	6.4	28	184	254	219	264	. .	9.8	310 18 40.4	. .	— 1 6.0	1 23 55.6	— 0.2
8																	
9	24 10	14.4	13.5	7.9	7.5	25	259	248	. .	142	106	9.8	24 13 24.5	401	+ 25.3	75 20 11.0	— 0.8
10	30 30	13.9	13.2	7.9	7.5	24	. .	. .	. .	460	428	9.8	30 23 35.0	400	+ 32.9	81 30 29.1	— 0.8
11	18 40	8.2	7.2	2.0	2.7	24	. .	. .	320	. .	. .	9.8	18 43 43.5	. .	+ 19.0	69 50 23.7	— 0.3
12	15 8	6.6	5.6	0.7	1.5	24	. .	040	. .	890	. .	9.8	15 11 50.4	350	+ 15.1	66 18 26.7	— 1.6
13	7 20	9.2	8.1	3.7	3.0	21	. .	936	. .	867	. .	9.8	7 24 19.6	. .	+ 7.2	58 30 48.0	— 1.6
14	22 36	9.7	8.7	3.7	3.6	27	. .	. .	409	. .	. .	9.8	22 38 54.8	. .	+ 23.0	73 45 39.0	+ 0.4
15	15 12	7 15.3	13.2	11.8	7.6	24	. .	. .	368	. .	. .	9.8	15 16 5.8	. .	+ 14.9	66 22 41.9	— 2.3
16	15 44	10 4.2	3.5	27.0	27.3	23	. .	. .	. .	140	195	9.8	15 48 4.9	274	+ 15.4	66 54 41.5	— 2.4
17	22 20	10 13.9	12.5	7.0	7.6	27	572	520	. .	316	336	9.8	22 22 50.7	278	+ 22.5	73 29 34.4	— 1.3
18	15 48	10 17.3	15.2	9.5	9.5	27	. .	. .	. .	870	550	9.8	15 50 34.9	. .	+ 15.5	66 57 11.6	— 2.8
19	33 16	9.8	8.3	2.2	2.1	24	. .	. .	925	868	878	9.8	33 19 33.5	267	+ 35.8	84 26 30.5	— 3.0
20	7 38	14.2	12.4	7.3	7.3	26	. .	. .	. .	637	665	9.8	7 41 1.8	. .	+ 7.4	58 48 30.4	— 3.0
21	17 50	13.4	11.7	5.7	6.7	22	285	160	. .	. .	008	9.8	17 54 12.8	263	+ 17.6	69 0 51.6	— 6.5
22	17 50	13.4	11.7	5.7	6.7	19	. .	. .	. .	310	398	9.8	17 54 53.8	. .	+ 17.6	69 1 32.6	— 6.5
23 24	307 28	9.8	10.1	6.0	6.4	.	315	359	311	310	305	9.7	307 30 54.6	325	— 1 11.7	358 36 4.1	0.0
25																	
26	19 46	12.1	10.9	6.0	5.7	24	. .	547	. .	410	. .	9.7	19 49 37.4	335	+ 20.0	70 56 18.6	— 0.1
27	206 2	5.8	8.5	4.3	1.0	20	. .	725	775	655	. .	9.7	206 6 38.0	. .	+ 27.2	24 59 16.0	— 4.4
28	18 58	7.5	6.5	2.2	1.6	27	236	175	. .	035	048	9.7	19 1 1.3	345	+ 19.1	70 7 41.6	+ 1.7
29	285 42	4.9	5.0	1.7	1.6	27	179	149	. .	068	934	9.7	285 45 1.6	. .	— 3 13.6	336 48 9.2	+ 1.6
30	217 20	5.6	7.2	3.1	0.0	27	. .	. .	577	588	505	9.8	217 22 54.6	348	+ 42.4	13 42 44.2	— 3.6
31	215 44	3.1	5.3	1.2	28.5	24	. .	. .	. .	696	720	9.8	215 47 40.0	. .	+ 40.0	15 18 1.2	— 3.3
32	132 10	9.9	11.0	5.1	3.1	24	200	128	. .	056	006	9.8	132 13 44.7	. .	— 1 1.3	98 53 37.8	— 0.2
33	326 32	6.9	6.4	3.1	2.3	24	134	105	. .	080	068	9.8	326 35 47.4	377	— 36.8	17 41 31.8	— 0.4
34	168 12	5.8	7.6	3.1	1.1	22	. .	. .	048	. .	901	9.8	168 16 19.1	. .	— 11.6	62 50 13.7	+ 0.9
35	32 0	11.0	11.1	4.9	4.6	29	336	279	. .	154	137	9.9	32 2 25.7	. .	+ 34.8	83 9 21.7	+ 1.2
36	320 38	5.5	4.7	2.1	0.9	22	. .	. .	390	. .	. .	9.9	320 42 14.8	. .	— 45.5	11 47 50.5	+ 1.1
37	61 2	7.7	8.1	2.5	1.8	21	. .	014	. .	900	. .	9.9	61 6 34.8	361	+ 1 40.3	112 14 36.3	+ 0.1
38	352 12	10.1	9.0	5.0	3.9	23	. .	. .	698	. .	. .	10.0	352 15 51.2	. .	— 7.5	43 22 4.9	— 0.6
39	64 56	6.8	6.7	1.3	1.6	23	. .	. .	998	870	885	10.0	64 59 50.0	363	+ 1 58.7	116 8 9.9	+ 1.9
40	329 48	7.0	5.8	2.5	1.9	28	. .	. .	125	. .	. .	10.0	329 50 46.2	. .	— 32.3	20 56 35.1	— 0.2
41	48 2	7.2	7.5	2.5	1.2	28	. .	778	. .	680	. .	10.0	48 7 10.7	. .	+ 1 2.0	99 14 33.9	— 3.5
42	316 36	8.5	8.0	4.7	4.1	25	. .	. .	698	. .	. .	10.0	316 39 21.3	368	— 52.5	7 44 50.0	0.0
43	24 18	6.4	5.3	0.2	29.9	29	288	247	. .	094	100	10.0	24 20 31.5	. .	+ 25.2	75 27 17.9	+ 0.6
44	71 24	6.4	6.5	1.0	0.2	29	. .	840	. .	760	. .	10.0	71 28 55.3	. .	+ 2 44.5	122 38 1.0	— 4.5
45	74 16	6.7	8.1	2.0	1.7	26	. .	301	. .	254	. .	10.0	74 21 48.0	370	+ 3 16.1	125 31 25.3	— 4.3
46	65 28	6.8	6.5	1.5	1.7	27	. .	735	. .	605	. .	10.1	65 33 27.4	. .	+ 2 2.1	116 41 50.7	— 6.0
47	41 46	9.0	8.2	3.6	3.3	28	. .	. .	. .	930	920	10.1	41 48 31.3	375	+ 49.8	92 55 42.3	— 0.2
48	47 10	11.0	11.3	5.8	5.5	28	945	901	. .	810	754	10.1	47 12 31.0	. .	+ 1 0.2	98 19 52.4	— 1.0
49	0 10	11.9	9.7	6.1	5.7	23	. .	. .	. .	788	778	10.1	0 13 48.1	. .	+ 0.2	51 20 9.5	+ 0.7
50	306 6	7.2	6.9	3.9	3.5	25	. .	. .	902	. .	. .	10.1	306 9 19.2	380	— 1 16.2	357 14 24.2	— 0.4

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	″

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	II.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
														m. s.	s.	s.	s.	h. m. s.	s.
1868. June 16	1	ε Bootis	E.	.	8.9	11.8	13.5	20.3	22.6	24.9	32.0	33.7	36.5	39 22.69	+ 0.13	− 7.91	− 7.91	14 39 14.91	− 0.01
	2	β Ursæ Minoris, (R.)	E.	.	31.7	41.1	47.1	10.6	18.1	25.9	48.9	54.5	4.6	51 18.06	− 0.98	. .	− 7.91	14 51 9.17	− 0.11
	3	Polaris	T.	.	. .	. .	. .	41.0	5.0	30.0	54.0	. .	. .	11 6.00	−11.42	. .	− 8.19	1 10 46.39	+ 2.22
17	4	Polaris, S. P. . .	T.	.	5.0	21.0	16.5	. .	. .	. .	. .	. .	. .	10 43.60	+11.90	. .	− 8.27	1 10 47.32	+ 2.66
	5	ζ Virginis . . .	T.	3	55.2	57.8	59.4	5.5	7.5	9.5	15.7	17.3	19.7	28 7.51	+ 0.28	− 8.24	− 8.27	13 27 59.52	− 0.03
	6	α Serpentis, (R.). .	T.	.	43.9	46.4	47.9	54.1	56.2	58.3	4.3	6.0	8.5	37 56.18	+ 0.25	. .	− 8.29	15 37 48.14	+ 0.17
	7	ε Serpentis . . .	T.	.	12.0	14.6	16.1	22.3	24.3	26.5	32.4	34.3	36.5	44 24.31	+ 0.26	− 8.33	− 8.29	15 44 16.28	+ 0.03
	8	Saturn I, N. . .	T.	.	27.8	30.6	32.2	. .	. .	. .	49.3	51.0	53.7	55 40.78	+ 0.38	. .	− 8.29	15 55 32.87	. .
	9	Saturn II, S. . .	T.	3	. .	. .	37.6	39.8	41.9	44.1	46.3	. .	. .	55 41.95	+ 0.38	. .	− 8.29	15 55 34.04	. .
	10	δ Ophiuchi, (R.) . .	T.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	11	η Draconis . . .	T.	.	. .	. .	. .	15.1	23.8	. .	. .	. .	. .	22 23.80	− 0.26	. .	− 8.29	16 22 15.25	− 0.36
	12	γ Ceti	N.	3	23.6	26.0	27.7	33.7	35.8	37.8	44.0	45.5	48.1	36 35.80	+ 0.31	− 8.34	− 8.33	2 36 27.78	+ 0.01
	13	α Ceti	N.	3	18.6	21.2	22.6	28.7	30.7	32.8	39.1	40.6	43.1	55 30.82	+ 0.33	− 8.32	− 8.33	2 55 22.82	+ 0.01
	14	η Tauri	N.	2.3	33.4	36.2	37.7	44.3	46.6	48.7	55.4	57.1	59.8	39 46.58	+ 0.22	− 8.40	− 8.34	3 39 38.46	+ 0.07
18	15	Sun I, N. . . .	N.	3	32.2	35.0	36.6	43.4	45.4	47.6	54.4	56.1	59.0	44 45.52	+ 0.22	. .	− 8.36	5 48 37.38	. .
	16	Sun II, S. . . .	N.	2	49.7	52.8	54.4	1.0	3.3	5.6	12.1	13.8	16.7	51 3.27	+ 0.22	. .	− 8.36	5 50 55.13	. .
	17	κ Draconis, . . .	N.	3	. .	. .	. .	. .	5.1	11.0	23.2	27.7	35.2	27 58.70	− 0.46	. .	− 8.43	12 27 49.90	+ 0.04
	18	α Canum Venat. .	N.	4	44.2	47.5	49.6	57.4	0.1	2.6	10.6	12.5	15.8	50 1.03	+ 0.11	− 8.38	− 8.44	12 50 51.70	− 0.05
	19	Polaris, S. P. .	N.	5	3.5	19.3	17.5	. .	. .	. .	7.7	5.0	21.3	10 42.16	+12.04	. .	− 8 44	1 10 45.76	+ 0.14
	20		N.	5	. .	. .	29.0	5.7	42.3	19.3	54.0	. .	. .						
	21	α Draconis, (R.) .	N.	3	30.1	36.4	39.4	54.5	59.1	4.1	18.6	22.2	28.4	0 59.26	− 0.65	. .	− 8.45	14 0 50.16	+ 0.01
	22	α Bootis	N.	3	35.0	37.8	39.5	45.9	48.2	50.2	56.8	58.3	1.0	9 48.08	+ 0.24	− 8.43	− 8.45	14 9 39.87	− 0.01
	23	θ Bootis	N.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. . .	. .	. .	. . . .	. .
	24	5 Ursæ Minoris, (R.)	N.	3	. .	. .	. .	53.7	45.1	58.1	2.5	6.7	11.2	28 2.06	− 1.42	. .	− 8.46	14 27 52.18	+ 0.24
	25	α^2 Libræ	N.	4	32.2	34.8	36.3	42.6	44.8	46.9	53.2	54.9	57.5	43 44.80	+ 0.42	− 8.44	− 8.46	14 43 36.76	− 0.04
	26	β Ursæ Minoris, (R.)	N.	3	32.7	42.2	48.0	11.4	18.7	26.5	50.0	55.7	5.2	51 18.93	− 1.26	. .	− 8.46	14 51 9.21	+ 0.04
	27	β Libræ, (R.) . .	N.	4	52.2	56.3	0.5	2.5	4.5	6.6	8.6	12.7	17.0	10 4.54	+ 0.27	. .	− 8.46	15 10 56.35	− 0.06
	28	μ Bootis	N.	4	24.8	28.1	30.0	37.8	40.5	42.9	50.6	52.7	55.8	19 40.36	+ 0.12	− 8.48	− 8.46	15 19 32.02	+ 0.02
	29	α Cor. Borealis, (R.)	N.	4	2.4	5.3	7.1	13.9	16.3	18.5	25.3	27.2	30.0	29 16.22	0.00	. .	− 8.47	15 29 7.75	− 0.02
	30	ζ Ursæ Minoris . .	N.	4	2.9	15.8	23.2	53.0	3.3	13.0	43.3	50.5	2.8	49 3.08	− 1.24	. .	− 8.47	15 49 53.37	− 0.16
	31	Saturn I, S. . .	N.	3	12.6	15.3	17.0	. .	. .	. .	34.2	35.6	38.5	55 25.53	+ 0.44	. .	− 8.47	15 55 17.50	. .
	32	Saturn II, N.. .	N.	3	. .	. .	22.4	24.6	26.8	29.0	31.2	. .	. .	55 26.80	+ 0.44	. .	− 8.47	15 55 18.77	. .
	33	δ Ophiuchi . . .	N.	5	23.8	26.2	27.9	34.0	36.0	38.0	44.1	45.7	48.3	7 36.00	+ 0.36	− 8.42	− 8.47	16 7 27.89	− 0.03
	34	τ Herculis . . .	N.	3	39.1	42.9	45.2	54.1	57.1	0.0	9.0	11.0	14.8	15 57.02	+ 0.04	. .	− 8.47	16 15 48.59	+ 0.20
	35	α Scorpii	N.	3	. .	. .	25.1	27.3	29.6	31.9	34.2	. .	. .	21 29.62	+ 0.49	− 8.46	− 8.47	16 21 21.64	+ 0.01
	36	ζ Ophiuchi, (R.) .	N.	4	51.6	54.2	55.8	2.0	4.0	6.0	12.3	13.9	16.4	30 4.02	+ 0.28	. .	− 8.48	16 30 55.82	− 0.02
	37	α Camelopard., S. P.	N.	3	33.3	27.1	23.2	8.1	3.1	58.2	42.9	39.2	32.8	41 58.10	+ 1.00	. .	− 8.48	4 40 55.62	+ 0.08
	38	b Ophiuchi . . .	N.	3	15.8	18.6	20.2	27.0	29.2	31.4	38.2	39.8	42.6	18 29.20	+ 0.47	− 8.48	− 8.48	17 18 21.19	0.00
	39	α Ophiuchi . . .	N.	.	46.3	48.9	50.5	56.8	58.9	0.9	7.3	8.8	11.4	28 58.87	+ 0.28	− 8.54	− 8.49	17 28 50.66	+ 0.06
	40	Polyhymnia . .	N.	2	29.7	32.6	34.4	38.6	41.1	43.1	45.6	. .	. .	37 43.35	+ 0.49	. .	− 8.49	17 37 35.35	. .
	41	δ Ursæ Minoris . .	N.	2	43.0	7.0	16.3	50.7	26.0	59.0	34.0	. .	. .	15 25.36	− 4.46	. .	− 8.49	18 15 12.41	− 0.88
	42	α Tauri . . .	E.	.	16.1	18.8	20 5	27.0	29.0	31.0	37.2	38.9	41.6	28 28.90	+ 0.28	− 8.53	− 8.50	4 28 20.68	+ 0.03
	43	α Aurigæ . . .	E.	.	. .	. .	. .	. .	39.7	44.2	45.7	47.0	48.3	7 4.62	+ 0.08	. .	− 8.51	5 6 56.19	+ 0.22
19	44	Sun I, N. . . .	E.	.	41.8	44.7	46.4	53.0	55.3	57.6	4.1	5.7	8.7	52 55.26	+ 0.24	. .	− 8.51	5 52 46.99	. .
	45	Sun II, S. . . .	E.	.	. .	. .	8.6	10.8	13.0	15.3	17.5	. .	. .	55 13.04	+ 0.24	. .	− 8.51	5 55 4.77	. .
	46	α Canis Majoris .	E.	.	14.4	17.1	18.7	25.1	27.2	29.3	35.8	37.5	40.1	39 27.24	+ 0.45	− 8.55	− 8.53	6 39 19.16	− 0.05
	47	α Canis Minoris .	E.	.	19.0	21.5	23.0	29.2	31.3	33.3	39.5	41.1	43.6	32 31.28	+ 0.34	− 8.48	− 8.53	7 32 23.09	− 0.07
	48	Mercury I, (center)	E.	.	45.6	48.5	50.0	56.9	59.1	1.5	7.8	9.7	12.2	40 59.03	+ 0.25	. .	− 8.54	7 40 50.74	+ 0.31
	49	Venus I, N.C. .	E.	.	23.1	25.8	28.0	34.3	36.4	38.5	45.3	46.7	49.5	17 36.40	+ 0.26	. .	− 8.55	8 17 28.11	+ 1.57

11. C_1 and C_3 in R. A.
24. D_3 and E in R. A.; bisections at V, V½, and VI.
26.30. Bisections at sets B and D.
35. Wire B used.
40. Wire A used.
43. Seems one rev. wrong. R. A. observed over set E.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	11 12	15.5	15.8	10.3	8.5	25	. .	245	. .	035	. .	10.1	11 15 23.9	. .	+ 11.1	62 21 56.2	− 1.0
2	215 44	7.0	10.6	5.3	3.2	24	428	465	. .	325	148	10.1	215 47 39.9	. .	+ 40.1	15 18 1.2	− 3.1
3																	
4																	
5	38 44	15.3	14.5	8.5	8.4	22	. .	180	. .	060	. .	9.4	38 48 10.0	301	+ 44.1	89 55 15.3	+ 1.1
6	147 54	17.5	19.0	12.3	11.7	24	. .	304	. .	141	. .	9.4	147 57 34.4	. .	− 34.6	83 9 21.4	+ 1.2
7	33 58	2.2	2.7	25.5	27.3	30	. .	. .	221	. .	. .	9.4	34 0 18.4	340	+ 37.3	85 7 16.9	− 1.3
8	57 4	12.5	12.7	5.8	7.6	26	459	. .	. .	. .	700	9.4	57 7 3.8	347	+ 1 25 5	108 14 50.5	− 0.8
9	57 4	12.5	12.7	5.8	7.6	25	. .	563	. .	576	. .	9.4	57 7 19.2	. .	+ 1 25.5	108 15 5.9	− 0.8
10	137 42	10.2	12.2	5.8	5.4	22	. .	653	. .	625	. .	9.4	137 46 5.4	. .	− 50.3	93 21 6.1	+ 1.9
11	337 2	13.7	13.2	9.1	8.8	26	. .	576	. .	670	. .	9.4	337 5 2.3	. .	− 23.5	28 11 0.0	+ 1.3
12	36 8	10.5	10.7	4.4	3.5	21	910	857	. .	791	732	9.0	36 12 18.6	282	+ 40.0	87 19 19.8	− 3.2
13	35 16	9.7	9.1	3.0	2.4	27	915	820	. .	752	708	8.9	35 18 48.4	290	+ 38.7	86 25 48.3	− 2.9
14	15 8	9.5	8.8	3.0	2.8	23	. .	. .	. .	682	680	8.8	15 11 50.5	284	+ 14.8	66 18 26.5	− 1.7
15	15 8	17.2	17.3	11.3	10.0	23	911	846	. .	. .	. .	8.8	15 11 41.4	190	+ 14.5	66 18 17.1	− 2.3
16	15 40	12.2	11.7	4.5	4.8	26	. .	. .	. .	204	155	8.8	15 43 10.0	. .	+ 15.1	66 49 46.3	− 2.3
17	328 20	11.3	10.9	6.4	5.1	27	. .	. .	. .	027	024	9.7	328 22 58.4	280	− 33.6	19 28 46.0	− 2.7
18	359 48	4.5	4.7	28.8	26.8	25	. .	. .	130	. .	. .	9.7	359 51 34.8	. .	− 0.1	40 57 55.9	− 0.9
19 20	307 28	5.7	6.8	1.2	1.3	27	. .	696	730	710	. .	9.7	307 30 52.7	292	− 1 11.2	358 36 2.7	− 1.3
21	206 4	7.0	9.7	4.0	0.3	28	. .	. .	632	480	430	9.8	206 6 37.6	302	+ 27.0	24 59 16.6	− 3.4
22	18 58	9.3	8.9	3.2	1.6	27	. .	104	. .	050	. .	9.8	19 1 0.7	. .	+ 19.1	70 7 41.0	+ 1.5
23	193 30	10.0	12.1	5.5	2.1	22	735	778	. .	660	630	9.8	193 34 5.1	. .	+ 13.3	37 32 2.8	− 2.2
24	217 20	8.0	10.1	4.3	0.9	27	. .	. .	430	359	270	9.8	217 22 54.8	309	+ 41.9	13 42 44.5	− 2.8
25	54 20	10.7	10.1	3.3	2.7	31	. .	410	. .	282	. .	9.8	54 21 54.2	. .	+ 1 16.6	105 29 32.0	+ 0.7
26	215 44	5.1	7.2	1.6	28.3	24	652	630	. .	585	611	9.8	215 47 40.6	. .	+ 39.7	15 18 0.9	− 3.0
27	132 10	10.3	12.0	5.0	1.9	24	209	199	. .	100	063	9.9	132 13 44.1	319	− 1 0.6	98 53 37.7	− 0.1
28	1 0	11.2	10.7	5.0	4.0	27	280	250	. .	125	106	9.9	1 2 57.4	. .	+ 1.0	52 9 19.6	− 0.5
29	168 12	8.0	10.1	4.0	0.3	22	035	960	. .	865	810	9.9	168 16 19.4	322	− 11.4	62 50 13.2	+ 1.1
30	320 38	3.7	3.3	29.3	27.9	22	710	678	. .	660	680	9.9	320 42 12.9	. .	− 45.1	11 47 49.0	+ 0.3
31	57 4	13.4	13.3	6.2	5.6	27	910	. .	. .	. .	680	9.9	57 6 45.6	. .	+ 1 24.9	108 14 31.7	− 0.8
32	57 4	13.4	13.3	6.2	5.6	29	. .	058	. .	920	. .	9.9	57 6 27.4	324	+ 1 24.9	108 14 13.5	− 0.8
33	42 10	13.4	13.1	5.4	4.6	23	540	488	. .	390	360	10.0	42 13 52.9	. .	+ 50.1	93 21 4.2	+ 0.1
34	352 12	9.4	7.9	2.7	1.1	23	995	925	. .	829	835	10.0	352 15 50.5	. .	− 7.5	43 22 4.2	− 0.5
35	64 58	5.8	6.6	29.7	28.3	22	. .	. .	. .	001	933	10.0	64 59 50.8	330	+ 1 57.8	116 8 9.8	+ 1.7
36	130 46	8.9	10.3	3.5	0.4	24	680	592	. .	486	519	10.0	130 49 39.2	. .	− 1 3.8	100 17 45.8	+ 0.1
37	285 0	9.0	10.0	5.5	4.5	24	459	433	. .	392	305	10.0	285 3 38.6	. .	− 3 22.0	336 6 37.8	− 0.2
38	62 52	8.1	9.0	2.3	0.8	28	012	996	. .	877	820	10.1	62 54 48.4	342	+ 1 47.7	114 2 57.3	− 0.1
39	26 10	16.1	14.9	7.8	8.0	24	625	616	. .	482	488	10.1	26 13 33.6	. .	+ 27.3	77 20 22.1	+ 1.1
40	65 28	6.0	5.7	28.8	28.6	28	. .	510	. .	438	. .	10.1	65 33 16.9	. .	+ 2 1.2	116 41 39.3	− 6.1
41	312 14	9.5	9.3	4.5	3.1	22	270	355	340	241	324	10.2	312 18 13.1	350	− 1 0.9	3 23 33.4	− 2.0
42	22 36	19.6	19.4	13.5	12.5	26	. .	748	. .	690	. .	8.6	22 38 54.5	280	+ 22.8	73 45 38.5	+ 0.2
43	352 58	16.1	13.7	9.3	8.5	20	. .	. .	. .	. .	405	8.6	353 2 34.7	. .	− 6.6	24 8 49.3	+16.0
44	15 8	20.3	18.4	11.9	12.4	27	095	022	. .	. .	. .	8.6	15 10 50.8	. .	+ 14.7	66 17 26.7	− 2.3
45	15 40	14.6	12.5	6.9	8.3	29	. .	. .	. .	102	125	8.6	15 42 22.6	245	+ 15.2	66 48 59.0	− 2.3
46	55 22	14.6	14.9	8.0	7.4	27	675	700	. .	490	440	8.6	55 24 46.1	. .	+ 1 18.2	106 32 25.5	+ 1.2
47	33 16	17.9	17.5	11.5	9.6	24	150	315	. .	130	305	8.6	33 19 34.7	. .	+ 35.4	84 26 31.3	+ 0.8
48	17 4	17.7	16.4	9.8	9.0	22	560	480	. .	455	380	8.6	17 8 2.6	. .	+ 16.6	68 14 40.4	− 3.3
49	18 42	17.4	14.4	10.0	10.2	25	. .	. .	. .	320	335	8.6	18 45 17.8	. .	+ 18.2	69 51 57.2	− 7.3

No.	Barom.	External Therm.	Attached Therm.		No.	MOON'S—	
						Parallax.	Semi-diam.
	in.	°	°			′ ″	′ ″

For summary of the elements of reduction see page 3.

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan'us Corrections.
1868.														m. s	s.	s	s.	h. m. s.	s.
June 19	1	Polaris	T.	.	. .	. .	. .	. .	. .	. .	44.0	47.0	31.0	11 9.87	−10.53	. .	− 8.92	1 11 50.42	+ 3.41
	2	o Piscium . . .	T.	3	22.0	24.7	26.4	32.4	34.5	36.6	42.8	44.3	47.0	38 34.52	+ 0.32	− 8.89	− 8.92	1 38 25.92	− 0.07
	3	β Arietis	T.	.	17.2	20.0	21.6	28.2	30.3	32.4	39.1	40.7	43.4	47 30.32	+ 0.26	− 8.96	− 8.93	1 47 21.65	+ 0.04
	4	η Tauri	T.	3	33.7	36.6	38.2	44.9	47.2	49.4	56.0	57.7	0.6	39 47.15	+ 0.24	− 8.94	− 8.96	3 39 38.43	0.00
	5	ζ Persei	T.	.	44.7	47.8	49.6	59.0	1.5	3.8	8.6	10.5	13.6	46 59.11	+ 0.19	− 9.00	− 8.96	3 46 50.34	+ 0.04
20	6	Sun I, S. . . .	T.	3	52.2	54.8	56.4	3.3	5.5	7.6	14.3	16.1	18.7	57 5.45	+ 0.24	. .	− 9.00	5 56 56.67	. .
	7	Sun II, N. . . .	T.	3	9.8	12.7	14.4	21.1	23.3	25.4	32.0	33.7	36.7	59 23.23	+ 0.24	. .	− 9.00	5 59 14.47	. .
	8	β Geminorum . .	T.	3	8.6	11.4	13.2	20.1	22.5	24.9	31.7	33.5	36.5	37 22.49	+ 0.21	− 9.04	− 9.03	7 37 13.67	+ 0.01
	9	Mercury I, (centre)	T.	3	52.6	55.4	57.0	3.8	5.7	8.0	14.5	16.2	19.0	44 5.77	+ 0.25	. .	− 9.03	7 43 56.99	+ 0.32
	10	Venus I, N. . .	T.	3.2	59.3	2.0	3.8	10.2	12.6	14.9	21.2	22.9	25.5	18 12.49	+ 0.26	. .	− 9.04	8 18 3.71	+ 1.60
21	11	η Tauri	N.	3	. .	. .	44.1	46.3	48.5	50.8	53.0	. .	. .	39 48.54	+ 0.27	−10.31	−10.30	8 39 38.51	+ 0.03
	12	γ Tauri	N.	3	. .	. .	22.7	24.8	26.9	29.0	31.1	. .	. .	12 26.90	+ 0.31	−10.34	−10.31	4 12 16.90	+ 0.05
	13	ε Tauri	N.	2	51.5	54.2	56.0	2.4	4.5	6.6	13.1	14.6	17.1	21 4.45	+ 0.30	−10.26	−10.32	4 20 54.43	− 0.06
22	14	Sun I, N. . . .	N.	3	12.8	15.5	17.2	24.0	26.2	28.4	35.0	36.7	39.5	5 26.14	+ 0.27	. .	−10.36	6 5 16.05	. .
	15	Sun II, S. . . .	N.	3	. .	. .	39.4	41.7	44.1	46.1	48.2	. .	. .	7 43.90	+ 0.27	. .	−10.36	6 7 33.81	. .
	16	Moon I . . .	N.	2	11.8	25.1	26.6	29.3	42.5	46.0	47.0	48.0	49.1	14 16.20	+ 0.30	. .	−10.43	8 14 6.07	+72.61
	17	Venus I, S. . .	N.	3	44.2	46.9	48.6	55.0	57.1	59.2	5.8	7.5	10.2	18 57.17	+ 0.29	. .	−10.43	8 18 47.03	+ 1.64
	18	Venus N. . . .	N.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	19	α Canum Venat. .	N.	4	46.3	49.5	51.4	59.3	2.1	4.7	12.6	14.5	17.9	50 2.03	+ 0.18	−10.52	−10.55	12 49 51.66	− 0.02
	20	Polaris, S. P. . .	N.	4	. .	. .	13.0	49.0	29.5	2.5	15.5	13.0	28.0	10 49.80	+10.79	. .	−10.56	1 10 50.03	+ 0.04
	21	α Virginis, (R.) . .	N.	3	13.8	16.5	18.0	24.2	26.4	28.4	34.6	36.2	38.7	18 26.31	+ 0.25	. .	−10.56	13 18 16.00	+ 0.01
	22	η Ursæ Majoris . .	N.	4	12.8	16.6	19.0	28.4	31.6	34.8	44.3	46.7	50.7	42 31.66	+ 0.08	. .	−10.58	13 42 21.16	− 0.04
	23	η Bootis, (R.) . .	N.	4	23.0	25.6	27.2	33.7	35.8	38.0	44.5	46.1	48.8	48 35.86	+ 0.02	−10.60	−10.58	13 48 25.30	− 0.01
	24	α Draconis . . .	N.	4	31.8	38.0	41.7	56.0	0.7	5.5	20.2	23.7	29.6	1 0.80	− 0.16	. .	−10.59	14 0 50.05	+ 0.05
	25	α Bootis, (R.) . .	N.	4	37.4	40.3	41.9	48.3	50.5	52.7	59.1	0.8	3.5	9 50.50	+ 0.01	. .	−10.59	14 9 39.92	+ 0.08
	26	θ Bootis, (R.) . .	N.	3	34.4	38.7	41.1	51.4	54.5	57.8	7.9	10.3	14.6	20 54.52	− 0.38	. .	−10.59	14 20 43.55	+ 0.17
	27	5 Ursæ Minoris, (R.)	N.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	28	μ Bootis	N.	3	26.1	30.1	32.0	39.8	42.3	45.0	52.8	4.7	7.8	19 42.29	+ 0.19	−10.52	−10.62	15 19 31.86	− 0.10
	29	γ Ursæ Minoris .	N.	4	. .	. .	. .	. .	. .	24.4	37.9	42.8	51.3	21 11.01	− 0.43	. .	−10.62	15 21 59.96	+ 0.26
	30	ε Serpentis . . .	N.	3	14.3	16.9	18.4	24.5	26.6	28.5	34.8	36.3	38.7	44 26.56	+ 0.36	−10.69	−10.64	15 44 16.28	+ 0.04
	31	ζ Ursæ Minoris . .	N.	3	5.0	17.3	24.7	54.4	5.1	15.1	44.8	52.2	5.0	49 4.84	− 0.88	. .	−10.64	15 48 53.32	+ 0.04
	32	Saturn I, S. . .	N.	3	15.6	18.3	20.0	. .	. .	. .	37.0	38.7	41.4	54 28.50	+ 0.47	. .	−10.64	15 54 18.33	. .
	33	Saturn, II, N. . .	N.	3	. .	. .	25.4	27.6	29.9	31.9	34.0	. .	. .	54 29.76	+ 0.47	. .	−10.64	15 54 19.59	. .
	34	Elpis	N.	1	58.7	1.3	2.8	8.8	11.0	13.4	19.1	20.8	23.7	47 11.07	+ 0.42	. .	−10.66	16 47 0.83	. .
	35	κ Ophiuchi . . .	N.	3	25.3	27.9	29.4	35.7	37.8	39.8	46.0	47.6	50.2	51 37.74	+ 0.34	−10.69	−10.66	16 51 27.42	+ 0.06
	36	Eunomia . . .	N.	2	12.7	15.6	17.7	22.3	24.6	27.1	29.5	. .	. .	9 27.11	+ 0.55	. .	−10.67	17 9 16.99	. .
	37	Diana	N.	2	46.8	50.0	51.7	59.4	1.9	4.3	12.1	14.0	16.8	18 1.89	+ 0.56	. .	−10.68	17 17 51.77	. .
	38	α Tauri	E.	.	18.5	21.2	22.9	29.2	31.3	33.4	39.8	41.4	44.2	28 31.32	+ 0.25	−10.84	−10.88	4 28 20.69	− 0.04
23	39	Sun I, N. . . .	E.	.	23.0	25.7	27.4	33.9	36.1	38.2	45.0	46.7	49.5	9 36.17	+ 0.22	. .	−10.92	6 9 25.47	. .
	40	Sun II, S. . . .	E.	.	40.7	43.4	45.2	51.8	53.9	56.0	3.0	4.7	7.3	11 54.00	+ 0.22	. .	−10.92	6 11 43.30	. .
	41	α Canis Minoris .	E.	.	21.5	24.0	25.5	31.8	33.8	35.7	41.9	43.5	45.9	32 33.73	+ 0.30	−10.88	−10.95	7 32 23.08	− 0.09
	42	Venus I, N. . .	E.	.	. .	. .	0.7	2.9	5.1	7.3	9.5	. .	. .	19 5.10	+ 0.24	. .	−10.97	8 18 54.37	+ 1.67
	43	α Draconis . . .	E.	.	30.8	36.9	40.3	55.3	59.6	5.0	18.8	22.5	28.5	0 59.74	− 0.15	. .	−11.11	14 0 48.48	− 0.48
	44	α Bootis, (R.) . .	E.	.	36.7	39.6	41.1	47.5	49.7	51.8	58.4	0.1	2.7	9 49.73	+ 0.02	. .	−11.11	14 9 38.64	− 0.20
	45	ι Cassiopeæ, S. P. .	E.	.	55.7	49.0	45.2	34.3	29.9	24.4	. .	. .	. .	18 24.44	+ 0.83	. .	−11.11	2 18 14.16	− 0.03
	46	θ Bootis	E.	.	. .	. .	. .	49.8	52.9	56.3	6.7	9.3	13.1	20 53.13	+ 0.03	. .	−11.11	14 20 42.05	− 1.31
	47	5 Ursæ Minoris, (R.)	E.	.	. .	. .	. .	53.0	1.5	9.8	19.1	. .	. .	28 1.59	− 1.31	. .	−11.12	14 27 49.16	− 2.38
	48	ε Bootis	E.	.	10.8	13.5	15.3	22.3	24.5	26.7	33.7	35.5	38.3	39 24.51	+ 0.20	− 9.87	−11.12	14 39 13.59	− 1.20
	49	α¹ Libræ	E.	.	22.2	24.9	26.5	. .	. .	. .	43.2	45.0	47.5	43 34.88	+ 0.38	. .	−11.12	14 43 24.14	. .
	50	α² Libræ	E.	.	33.7	36.3	38.0	. .	. .	. .	54.8	56.5	59.1	43 46.40	+ 0.38	−10.03	−11.12	14 43 35.66	− 1.12

16. R. A. over sets C and D and E.
27.31. Bisections at sets B and D.
34.36.37. Wire A used.
43 to 50. R. A. too discordant to use.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Simpiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1																	
2	30 20	14.5	14.2	7.6	7.2	24	566	535	. .	363	350	9.8	30 23 35.6	301	+ 32.2	81 30 29.0	0.0
3	18 40	13.6	13.3	7.5	7.1	23	980	018	. .	938	878	9.8	18 43 43.9	296	+ 18.6	69 50 23.7	+ 0.3
4	15 8	20.5	19.9	13.2	13.6	23	089	091	. .	979	996	9.8	15 11 51.5	263	+ 14.8	66 18 27.5	− 0.5
5	7 20	12.5	10.7	5.1	5.1	21	701	. .	. .	. .	649	9.8	7 24 21.0	260	+ 7.1	58 30 49.3	− 0.2
6	15 38	10 20.9	20.0	13.4	12.8	22	478	431	. .	. .	. .	9.8	15 42 1.4	. .	+ 15.2	66 48 37.8	− 2.3
7	15 6	17.3	16.5	9.5	10.2	20	. .	. .	. .	751	782	9.8	15 10 28.6	225	+ 14.6	66 17 4.4	− 2.3
8	10 30	15.9	14.3	9.5	9.1	26	. .	552	. .	568	. .	9.8	10 33 2.2	. .	+ 10.0	61 39 33.4	− 0.2
9	17 24	16.6	14.5	8.5	8.8	22	549	522	. .	368	332	9.8	17 28 5.3	178	+ 16.8	68 34 43.3	− 3.4
10	18 54	17.9	17.1	9.4	9.8	23	403	401	. .	083	076	9.8	18 57 51.6	. .	+ 18.3	70 4 31.2	− 7.5
11	15 8	10 12.7	12.2	5.6	5.7	23	. .	. .	. .	572	535	9.9	15 11 50.5	362	+ 15.1	66 18 26.8	− 1.1
12	23 32	10.9	10.0	2.9	3.0	27	. .	. .	. .	160	140	9.9	23 34 57.7	. .	+ 24.3	74 41 43.2	− 1.3
13	19 56	10.8	10.6	3.9	4.1	21	800	800	. .	. .	712	9.9	20 0 20.8	355	+ 20.2	71 7 2.2	0.0
14	15 8	10 21.0	20.0	13.8	13.4	26	790	798	. .	. .	. .	9.9	15 10 55.0	317	+ 14.9	66 17 31.1	− 2.2
15	15 40	10 18.0	17.4	13.0	10.7	28	. .	. .	. .	919	885	9.9	15 42 22.9	. .	+ 15.5	66 48 59.6	− 2.3
16																	
17	19 20	14.5	14.1	7.5	7.0	25	575	570	. .	. .	. .	9.9	19 23 20.2	294	+ 19.2	70 30 0.6	− 7.9
18	19 20	14.5	14.1	7.5	7.0	28	. .	. .	. .	470	415	9.9	19 22 33.6	. .	+ 19.3	70 29 14.1	− 7.9
19	359 48	7.7	8.1	1.6	0.9	25	020	958	. .	860	844	9.7	359 51 35.0	. .	− 0.1	50 57 56.1	− 0.3
20	307 28	8.8	10.3	4.7	5.0	27	426	455	438	415	435	9.7	307 30 53.4	352	− 1 12.2	358 36 2.4	− 1.6
21	130 36	9.3	11.5	4.0	2.7	27	090	001	. .	. .	. .	9.7	130 39 1.0	. .	− 1 4.6	100 28 24.8	+ 1.9
22	348 52	8.7	7.8	3.1	1.8	26	. .	362	. .	245	. .	9.7	348 55 13.1	. .	− 10.9	40 1 23.4	− 1.0
23	160 6	8.2	9.8	3.9	1.1	21	722	686	. .	610	511	9.7	160 10 23.5	374	− 20.0	70 56 17.7	− 0.2
24	333 50	12.0	11.8	7.2	5.5	25	480	418	. .	290	359	9.7	333 53 24.1	. .	− 27.3	24 59 18.0	− 1.4
25	160 56	8.4	9.6	4.2	1.5	27	140	120	. .	001	949	9.7	160 59 0.5	. .	− 19.2	70 7 39.9	+ 0.8
26	193 38	10.2	12.7	6.5	3.4	22	680	692	. .	548	520	9.7	193 34 5.6	. .	+ 13.5	37 32 2.1	− 2.2
27	217 20	8.2	11.4	6.0	2.2	27	. .	. .	365	298	242	9.7	217 22 52.6	390	+ 42.8	13 42 45.8	− 0.9
28	1 0	13.2	12.0	6.4	5.9	27	. .	. .	048	. .	. .	9.7	1 2 57.3	. .	+ 1.0	52 9 19.5	+ 0.2
29	326 32	7.3	7.0	3.0	1.7	24	. .	. .	. .	230	259	9.7	326 36 45.4	403	− 37.0	17 41 29.6	− 1.0
30	33 58	7.1	6.7	29.9	29.6	30	. .	. .	007	. .	. .	9.7	34 0 18.1	. .	+ 37.9	85 7 17.2	− 0.5
31	320 38	9.3	9.1	4.5	4.0	22	355	287	. .	280	293	9.7	320 42 12.7	. .	− 46.0	11 47 47.9	+ 0.2
32	57 0	11.0	10.8	4.2	4.0	21	520	. .	. .	. .	350	9.7	57 4 24.7	. .	+ 1 26.6	108 12 12.5	− 0.8
33	57 0	11.0	10.8	4.2	4.0	22	. .	610	. .	485	. .	9.7	57 4 7.9	412	+ 1 26.6	108 11 55.7	− 0.8
34	48 0	12.4	13.6	6.5	5.9	26	. .	265	. .	173	. .	9.7	48 5 44.1	. .	+ 1 2.8	99 13 8.1	− 3.5
35	29 14	8.5	8.0	1.4	1.1	23	180	147	. .	994	965	9.7	29 18 2.8	421	+ 31.6	80 24 55.6	+ 0.1
36	70 50	9.0	10.1	3.0	2.4	21	. .	925	. .	995	. .	9.7	70 56 52.3	. .	+ 2 41.7	122 5 55.2	− 4.5
37	73 58	6.7	7.7	0.7	0.3	22	. .	322	. .	288	. .	9.7	74 4 49.2	426	+ 3 14.8	125 14 25.2	− 4.2
38	22 36	13.5	11.5	7.4	5.9	27	375	320	. .	210	240	9.8	22 38 53.7	. .	+ 23.4	73 45 38.3	+ 0.3
39	15 8	15.3	14.9	9.0	8.6	23	809	859	. .	. .	. .	9.8	15 11 45.2	354	+ 15.1	66 18 21.5	− 2.3
40	15 40	14.8	13.4	7.8	7.5	25	. .	. .	. .	510	508	9.8	15 43 18.7	. .	+ 15.6	66 49 55.5	− 2.3
41	33 16	14.4	14.6	8.2	6.4	24	732	718	. .	688	. .	9.8	33 19 32.1	. .	+ 36.6	84 26 29.9	− 0.3
42	19 32	9.7	7.7	2.6	2.4	28	. .	. .	. .	282	232	9.8	19 34 41.5	. .	+ 19.9	70 41 22.6	− 8.1
43	333 50	9.5	9.5	5.8	5.0	25	. .	. .	. .	550	. .	9.8	333 53 22.1	. .	− 27.4	24 59 15.9	− 3.3
44	160 56	9.7	11.6	6.4	4.4	26	. .	680	. .	585	. .	9.8	160 59 5.0	. .	− 19.3	70 7 35.5	− 3.4
45	285 42	9.5	10.0	6.5	6.3	26	. .	810	. .	. .	. .	9.8	285 35 2.6	. .	− 3 17.7	336 38 6.1	− 1.1
46	193 30	11.8	11.8	6.8	6.5	23	. .	. .	. .	090	. .	9.8	346 25 57.6	. .	− 13.5	37 32 5.3	+ 1.1
47	217 20	6.2	6.8	3.0	0.8	27	. .	. .	510	. .	. .	9.8	217 22 55.5	. .	+ 42.8	13 42 42.9	− 3.6
48	11 12	13.2	12.4	8.4	7.7	25	280	210	. .	270	215	9.8	11 15 24.2	. .	+ 11.2	62 21 56.6	+ 0.5
49	54 20	13.2	13.0	7.5	7.6	31	. .	. .	. .	880	. .	9.8	54 19 11.8	. .	+ 1 18.2	105 26 51.2	
50	54 20	13.2	13.0	7.5	7.6	31	130	. .	. .	. .	. .	9.8	54 21 55.0	. .	+ 1 18.2	105 29 34.4	+ 5.6

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	′ ″

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
June 23	1	ζ Ursæ Minoris . .	E.	.	. .	. .	44.9	54.1	4.4	15.0	24.3	. .	. .	49 4.54	− 0.74	. .	−11.15	15 48 52.65	− 0.56
	2	β¹ Scorpii	E.	.	46.1	48.9	50.7	57.0	59.1	1.3	7.6	9.4	12.2	57 59.14	+ 0.39	−11.29	−11.15	15 57 48.38	+ 0.11
	3	δ Ophiuchi . . .	E.	.	26.7	29.2	30.8	36.9	38.9	40.9	47.0	48.7	51.2	7 38.92	+ 0.33	−11.31	−11.15	16 7 28.10	+ 0.18
	4	τ Herculis . . .	E.	.	41.8	45.6	47.8	56.6	59.6	2.6	11.4	14.0	18.4	15 59.76	+ 0.08	. .	−11.16	16 15 48.68	+ 0.33
	5	α Scorpii	E.	.	18.8	21.7	23.5	30.2	32.5	34.9	41.6	43.5	46.0	21 32.52	+ 0.42	−11.28	−11.16	16 21 21.78	+ 0.14
	6	15 Draconis . . .	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	7	κ Ophiuchi . . .	E.	.	26.6	29.5	31.0	37.1	39.2	41.3	47.5	49.4	52.0	51 39.29	+ 0.28	−12.24	−11.17	16 51 28.40	+ 1.04
	8	d Herculis . . .	E.	.	43.5	46.5	48.5	55.7	58.0	0.6	8.0	9.8	12.8	56 58.16	+ 0.17	−12.35	−11.17	16 56 47.16	+ 0.18
	9	Eunomia . . .	E.	.	14.8	17.1	19.2	23.7	26.1	28.9	31.6	34.7	. .	8 28.95	+ 0.45	. .	−11.18	17 8 18.22	. .
24	10	Sun I, S. . . .	T.	2	33.1	35.3	37.6	43.9	46.0	48.7	55.3	57.0	58.7	13 46.18	+ 0.21	. .	−11.58	6 13 34.81	. .
	11	Sun II, N. . . .	T.	2	. .	. .	59.0	2.1	4.3	6.5	8.8	. .	. .	16 4.14	+ 0.21	. .	−11.58	6 15 52.77	.
	12	α Canis Minoris .	T.	.	22.1	24.8	26.2	32.3	34.4	36.5	42.6	44.3	46.8	32 34.45	+ 0.26	−11.56	−11.60	7 32 23.11	− 0.06
	13	Venus I, N. . .	T.	.	50.6	53.4	55.2	1.4	3.5	5.5	12.3	13.9	16.7	19 3.61	+ 0.23	. .	−11.62	8 18 52.22	+ 1.64
	14	γ Leonis	T.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	15	Moon I, N. . .	T.	3	49.9	52.5	54.1	0.4	2.6	4.7	11.2	12.7	15.3	2.59	+ 0.25	. .	−11.65	10 17 51.19	+ 66.35
	16	β Libræ	T.	.	55.3	58.0	59.6	5.6	7.7	9.9	16.1	17.6	20.2	10 7.78	+ 0.30	−11.70	−11.74	15 9 56.34	− 0.05
	17	γ² Ursæ Minoris, (R.)	T.	3	32.1	40.4	45.6	5.3	12.2	19.2	. .	. .	. .	20 12.27	− 0.87	. .	−11.74	15 20 59.66	+ 0.13
	18	α Coronæ Borealis .	T.	3	5.4	8.3	10.2	17.0	19.2	21.6	28.6	30.1	33.1	29 19.28	+ 0.20	−11.75	−11.74	15 29 7.74	+ 0.01
	19	α Serpentis, (R.). .	T.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	20	ε Serpentis . . .	T.	.	15.5	18.0	19.7	25.7	27.9	30.0	36.0	37.5	40.0	44 27.80	+ 0.26	−11.84	−11.75	15 44 16.32	− 0.06
	21	Saturn I, N. . .	T.	.	48.7	51.2	52.9	. .	. .	. .	10.3	11.9	14.5	54 1.58	+ 0.33	. .	−11.75	15 53 50.16	. .
	22	Saturn II . . .	T.	.	. .	. .	58.6	0.8	3.0	4.9	7.3	. .	. .	54 2.92	+ 0.33	. .	−11.75	15 53 51.50	. .
	23	δ Ophiuchi, (R.). .	T.	3	27.3	29.8	31.5	37.5	39.7	41.6	47.7	49.2	52.0	7 39.59	+ 0.02	. .	−11.76	16 7 27.80	− 0.07
	24	η Draconis . . .	T.	3	0.6	6.5	9.3	22.2	26.8	31.0	43.7	47.1	52.7	22 26.66	− 0.02	. .	−11.76	16 22 14.88	− 0.61
	25	ζ Ophiuchi, (R.). .	T,	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	26	ε Ursæ Minoris . .	T.	.	24.0	42.8	54.0	. .	. .	9.0	54.5	. .	24.8	59 54.32	− 0.88	. .	−11.77	16 50 41.67	− 0.40
25	27	Polaris, S. P. . .	N.	4	. .	. .	48.0	22.5	59.0	37.0	11.5	. .	. .	10 59.32	+ 4.73	. .	−12.16	1 10 51.89	+ 0.49
	28	θ Bootis, (R.) . .	N.	3	35.8	39.9	42.4	52.4	55.8	59.1	9.3	11.7	15.9	20 55.81	− 0.27	. .	−12.18	14 20 43.36	+ 0.05
	29	5 Ursæ Minoris, (R.)	N.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	30	ε Bootis, (R.) . .	N.	3	13.2	16.1	17.9	24.8	27.0	29.4	36.3	37.9	40.9	39 27.06	− 0.07	. .	−12.19	14 39 14.80	− 0.13
	31	β Ursæ Minoris . .	N.	3	35.0	44.2	50.0	13.7	21.5	28.9	52.4	57.8	7.6	51 21.23	− 0.17	. .	−12.19	14 51 8.87	+ 0.12
	32	48 Cephei, S. P. . .	N.	3	. .	. .	11.0	1.7	52.4	43.4	34.3	. .	. .	3 52.56	+ 0.71	. .	−12.19	3 2 41.08	+ 0.62
	33	β Libræ	N.	4	55.9	58.4	0.0	4.3	8.4	12.5	16.6	18.0	20.7	10 8.31	+ 0.25	−12.19	−12.20	15 9 56.36	− 0.12
	34	μ Bootis	N.	4	28.5	31.7	33.6	41.3	44.0	46.7	54.4	56.2	59.3	19 43.97	+ 0.14	−12.18	−12.20	15 29 31.91	− 0.02
	35	γ Ursæ Minoris . .	N.	3.2	. .	. .	5.2	12.1	18.6	25.4	38.8	43.6	52.1	21 11.93	− 0.10	. .	−12.20	15 20 59.63	+ 0.07
	36	α Coronæ Borealis .	N.	3	6.1	8.9	10.7	17.4	19.8	22.0	28.9	30.6	33.5	29 19.77	+ 0.17	−12.22	−12.20	15 29 7.74	+ 0.02
	37	α Serpentis, (R.). .	N.	2.3	. .	50.5	52.0	56.1	. .	. .	. .	. .	. .	38 0.22	+ 0.02	. .	−12.20	15 37 48.04	+ 0.00
	38	ζ Ursæ Minoris . .	N.	.	5.7	18.0	25.7	55.4	5.7	15.5	45.5	52.8	5.7	49 5.56	− 0.29	. .	−12.21	15 48 53.06	0.02
	39	Saturn I, S. . .	N.	1	35.9	38.4	39.9	. .	. .	. .	57.1	58.8	1.4	53 48.58	+ 0.27	. .	−12.21	15 33 36.64	. .
	40	Saturn II, N. . .	N.	.	. .	. .	45.5	47.7	49.9	51.9	54.1	. .	. .	53 49.83	+ 0.27	. .	−12.21	15 53 37.89	. .
	41	α Tauri	E.	.	. .	. .	28.8	30.9	33.0	35.1	37.3	. .	. .	28 33.00	+ 0.15	−12.37	−12.37	4 28 20.78	− 0.02
26	42	Sun, N. . . .	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	43	Sun, S.	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	44	Moon I, N. . .	E.	.	. .	41.0	42.5	45.1	57.8	0.8	2.0	3.1	4.3	10 32.71	+ 0.17	. .	−12.43	12 10 20.45	+ 66.37
	45	β Corvi	E.	.	27.7	30.5	32.2	38.8	41.0	43.2	49.8	51.5	54.2	27 40.99	+ 0.21	−12.51	−12.43	12 27 28.77	+ 0.14
	46	12 Canum Venat. .	E.	.	48.3	51.6	53.6	1.4	4.1	6.7	14.6	16.8	19.8	50 4.10	+ 0.12	−12.60	−12.44	12 49 51.78	+ 0.17
	47	θ Virginis . . .	E.	.	. .	28.8	30.3	32.9	45.3	48.3	49.4	50.4	51.3	3 20.66	+ 0.18	−12.51	−12.44	13 3 8.40	+ 0.06
	48	Polaris, S. P. . .	E.	.	. .	. .	50.0	26.5	1.5	39.5	15.5	. .	. .	11 2.30	+ 3.28	. .	−12.44	1 11 53.14	+ 0.02
	49	α Serpentis . . .	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .

1 to 9. R. A. too discordant to use.
6. Seems 2 revs. wrong.
15. Bisections at sets B and D.
35. Wire B used.
37. $B_{2,3}$ and C_1 in R. A.
44.47. Sets D and E in R. A.
44. Bisections at C_1 and C_5.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	320 38	12.8	11.6	7.8	7.2	22	. .	040	128	062	. .	9.8	320 42 12.9	. .	− 45.8	11 57 48.3	+ 0.8
2	58 14	6.2	5.8	29.5	29.3	20	792	875	. .	845	812	9.8	58 18 38.9	. .	+ 1 30.8	109 26 30.9	+ 2.0
3	42 10	19.3	18.3	11.4	11.8	23	198	100	. .	068	007	9.8	42 13 54.0	. .	+ 51.0	93 21 6.2	+ 2.5
4	352 12	16.6	15.1	10.1	9.2	23	. .	320	. .	305	. .	9.8	352 15 51.5	. .	− 7.6	43 22 5.1	+ 1.7
5	64 56	13.0	12.8	6.1	7.2	23	620	618	. .	568	480	9.8	64 59 49.9	. .	+ 2 0.0	116 8 11.1	+ 2.8
6	329 48	12.7	12.4	8.6	8.2	28	695	715	800	840	900	9.8	327 50 29.8	415	− 35.4	18 56 15.6	−27.4
7	29 14	9.2	8.8	3.4	3.5	22	. .	. .	. .	768	825	9.8	29 18 4.6	. .	+ 31.6	80 24 57.4	+ 2.0
8	5 4	13.2	10.8	6.1	5.8	24	075	0.00	. .	975	920	9.8	5 7 44.9	. .	+ 5.1	56 14 11.2	+ 2.1
9																	
10	15 42	8 19.1	16.0	11.0	9.5	30	540	540	. .	. .	. .	10.1	15 45 1.0	. .	+ 15.5	66 51 37.7	− 2.3
11	15 10	9 18.5	16.4	. .	9.6	26?	. .	. .	. .	313	192	10.1	15 13 33.5	303	+ 14.9	66 20 9.6	− 2.3
12	33 16	17.8	16.6	9.3	9.4	24	535	655	. .	483	448	10.1	33 19 32.4	. .	+ 36.0	84 26 29.6	− 0.5
13	19 44	13.1	11.2	5.5	6.1	28	526	438	. .	310	280	10.1	19 46 37.8	266	+ 19.7	70 53 18.7	− 8.3
14	18 20	13.5	10.5	5.0	6.2	27	. .	338	. .	240	. .	10.1	18 22 54.7	282	+ 18.2	69 29 34.1	+ 0.1
15	28 1	11 29.5	27.2	20.0	20.8	23	. .	400	079	955	. .	10.1	28 5 12.4	284	+ 29.1	79 12 2.7	
16	47 42	14.5	14.7	7.8	7.8	22	. .	100	. .	974	. .	9.9	47 46 12.2	460	+ 1 2.6	98 53 36.0	− 1.6
17	23 20	6.4	2.3	1.8	29.5	22	455	450	. .	330	310	9.9	213 24 15.4	. .	+ 37.5	17 41 28.3	− 1.7
18	11 40	6.3	7.0	1.8	0.5	24	. .	666	. .	566	. .	9.9	11 43 40.3	. .	+ 11.8	62 50 13.3	+ 2.3
19	147 54	1.5	3.2	27.4	24.0	25	122	140	. .	060	020	9.9	147 57 7.8	458	− 35.6	83 9 49.0	− 0.4
20	33 58	8.1	8.3	2.2	2.0	30	. .	. .	010	. .	. .	9.9	34 0 16.4	. .	+ 38.3	85 7 15.9	− 1.3
21	57 0	8.9	9.5	3.7	4.0	25	658	704	. .	696	632	9.9	57 3 21.3	459	+ 1 27.4	108 11 9.9	− 0.8
22																	
23																	
24	337 2	5.6	5.4	1.0	1.0	27	560	398	. .	170	236	9.9	337 5 0.1	. .	− 24.0	28 10 57.3	+ 0.6
25	130 46	3.0	5.0	28.9	27.0	24	. .	800	. .	. .	. .	9.9	130 49 41.2	. .	− 1 5.7	100 17 45.7	+ 0.4
26	316 36																
27	307 28	6.6	7.3	2.5	2.4	27	526	537	542	548	545	9.9	307 30 54.5	397	− 1 12.8	358 36 2.9	− 1.1
28	193 30	6.6	7.8	2.9	0.5	22	. .	. .	955	834	808	9.9	193 34 5.3	418	+ 13.6	37 32 2.3	− 1.5
29	217 20	6.1	7.9	3.3	0.5	27	. .	. .	. .	402	264	9.9	217 22 54.9	. .	+ 43.0	13 42 43.3	− 2.9
30	168 40	7.6	8.0	3.3	0.3	20	775	808	. .	771	681	9.9	168 44 37.9	. .	− 11.2	62 21 54.5	− 1.3
31	324 8	8.2	6.9	3.5	3.8	22	005	085	. .	928	962	10.4	324 12 20.0	. .	− 40.7	15 18 0.5	− 2.2
32	296 6	7.9	7.1	3.6	3.8	23	320	365	. .	245	335	10.4	296 9 58.6	427	− 1 54.2	347 14 25.6	+ 1.0
33	47 42	8.2	8.2	1.8	2.2	22	472	430	. .	352	324	10.4	47 46 13.3	. .	+ 1 2.1	98 53 36.6	− 0.9
34	1 0	11.2	9.0	4.5	4.9	27	. .	. .	252	. .	. .	10.4	1 2 56.9	. .	+ 1.0	52 9 19.1	+ 0.5
35	326 34	6.7	5.3	2.0	2.0	22	320	. .	. .	335	370	10.4	326 35 45.6	. .	− 37.2	17 41 29.6	0.0
36	11 40	9.6	8.8	3.6	3.6	24	675	600	. .	510	482	10.4	11 43 39.2	. .	+ 11.7	62 50 12.1	+ 1.3
37	147 54	5.0	5.1	29.2	27.6	24	980	005	. .	. .	. .	10.4	147 57 38.1	432	− 35.4	83 8 18.5	− 0.8
38	320 38	6.3	5.2	2.3	1.4	22	582	570	. .	505	480	10.4	320 42 12.9	. .	− 46.3	11 47 47.8	+ 0.8
39	57 0	8.2	7.7	2.2	2.5	27	. .	. .	832	. .	. .	10.4	57 2 50.2	. .	+ 1 27.0	108 10 38.4	− 0.8
40	57 0	8.2	7.7	2.2	2.5	28	. .	. .	. .	. .	770	10.4	57 2 34.4	. .	+ 1 26.9	108 10 22.5	− 0.8
41	22 36	13.6	12.8	6.9	5.5	27	375	280	. .	. .	110	10.5	22 38 55.2	. .	+ 23.5	73 45 39.9	+ 2.1
42	15 14	10 15.6	13.1	8.5	8.2	27	750	810	. .	. .	. .	10.5	15 16 46.2	. .	+ 15.2	66 23 22.6	− 2.3
43	15 46	10 14.7	13.7	9.0	8.4	29	. .	. .	. .	395	460	10.5	15 48 18.8	350	+ 15.7	66 54 55.7	− 2.3
44	37 13	11 13.7	12.4	8.3	6.7	29	. .	095	. .	910	. .	10.5	37 15 57.3	. .	+ 42.3	88 23 0.8	
45	61 28	10 7.5	6.8	2.5	1.5	22	710	. .	. .	680	670	10.5	61 32 8.6	. .	+ 1 42.3	112 40 12.1	− 0.1
46	359 48	10 18.2	17.5	12.5	12.2	24	330	295	. .	130	045	10.5	359 51 36.4	. .	− 0.1	50 57 57.4	+ 1.2
47	43 40	10 12.6	10.6	5.9	6.0	27	. .	. .	. .	. .	338	10.5	43 42 53.0	. .	+ 53.3	94 50 7.5	+ 1.9
48	307 28	12.8	12.0	8.8	7.6	27	130	160	180	140	110	10.5	307 30 55.5	. .	− 1 12.6	358 36 4.1	+ 0.2
49	32 0	14.0	13.8	6.2	8.5	29	200	140	. .	980	140	10.5	32 2 25.7	. .	+ 35.3	83 9 22.2	+ 3.1

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
15	− 28 0.0	+ 16 21.1
44	− 35 15.7	+ 15 58.9

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Jnne 26	1	Saturn I, S.	E.	.	22.4	25.3	27.1	. .	. .	. .	44.1	45.7	48.2	53 35.47	+ 0.20	. .	−12.49	15 53 23.18	. .
	2	Saturn II, N.	E.	.	. .	. .	. .	34.6	36.8	39.2	. .	. .	. .	53 36.87	+ 0.20	. .	−12.49	15 53 24.58	. .
	3	β^1 Scorpii	E.	.	47.4	50.1	51.8	58.3	0.5	2.7	9.1	10.8	13.4	58 0.46	+ 0.20	−12.43	−12.49	15 57 48.17	− 0.01
	4	δ Ophiuchi	E.	.	27.9	30.5	32.0	38.0	40.0	42.1	48.3	49.8	52.2	7 40.09	+ 0.18	−12.33	−12.49	16 7 27.78	− 0.14
	5	τ Herculis	E.	.	43.1	46.7	48.8	57.7	0.8	3.6	12.7	15.0	18.5	16 0.77	+ 0.10	. .	−12.50	16 15 48.37	+ 0.05
	6	α Scorpii	E.	.	20.1	23.1	24.8	31.5	33.7	36.1	42.8	44.6	47.2	21 33.77	+ 0.21	−12.32	−12.50	16 21 21.48	− 0.16
	7	15 Draconis	E.	.	55.7	2.9	7.4	24.2	30.2	35.8	52.7	57.1	4.4	28 30.04	− 0.02	. .	−12.50	16 28 17.52	− 0.45
	8	η Herculis	E.	.	20.9	24.4	26.2	34.2	36.7	39.1	47.0	49.1	52.5	38 36.68	+ 0.11	. .	−12.50	16 38 24.29	− 0.06
	9	κ Ophiuchi	E.	.	27.2	29.8	31.5	37.5	39.6	41.6	48.0	49.6	52.1	51 39.66	+ 0.16	−12.43	−12.51	16 51 27.31	− 0.05
	10	d Herculis	E.	.	43.5	46.7	48.5	55.8	58.4	0.8	8.3	10.0	13.1	56 58.34	+ 0.12	−12.49	−12.51	16 56 45.95	− 0.03
	11	Anonymous	E.	.	. .	. .	. .	. .	55.2	59.0	0.4	2.3	3.7	5 27.06	+ 0.22	. .	−12.51	17 5 14.77	. .
	12	Diana	E.	.	37.8	40.7	42.9	50.5	53.0	55.5	2.9	4.0	7.9	14 52.90	+ 0.23	. .	−12.51	17 14 30.61	. .
	13	966 Groombridge, S. P.	E.	.	2.9	52.6	47.4	23.3	15.3	8.0	44.5	38.7	28.6	22 15.70	+ 0.45	. .	−12.51	5 22 3.64	+ 0.16
	14	Polyhymnia	E.	.	. .	. .	37.6	39.4	41.3	43.3	45.4	. .	. .	29 41.40	+ 0.21	. .	−12.52	17 29 29.09	. .
	15	Astræa	E.	.	3.5	5.7	7.6	12.6	14.8	17.1	24.2	25.8	28.1	34 15.49	+ 0.20	. .	−12.52	17 34 3.17	. .
	16	μ Herculis	E.	.	. .	. .	27.9	29.9	32.2	34.5	36.9	. .	. .	41 32.28	+ 0.14	−12.61	−12.52	17 41 19.90	+ 0.09
27	17	α Canum Venat.	T.	4	48.8	52.1	54.0	2.0	4.5	7.2	15.1	17.1	20.3	50 4.57	+ 0.10	−13.07	−13.02	12 49 51.65	+ 0.06
	18	Moon I, N.	T.	4	38.1	40.7	42.2	48.5	50.6	52.7	58.9	0.5	3.1	3 50.59	+ 0.11	. .	−13.03	13 3 37.67	+65.53
	19	Polaris, S. P.	T.	.	. .	. .	55.0	. .	6.0	44.0	. .	. .	. .	11 7.40	+ 0.61	. .	−13.03	1 10 54.98	+ 1.91
	20	α Virginis	T.	3	16.3	18.9	20.5	26.6	28.7	30.8	37.1	38.7	41.3	18 28.76	+ 0.11	−12.92	−13.03	13 18 15.84	− 0.10
	21	ζ Virginis	T.	3	0.0	2.6	4.2	10.3	12.3	14.3	20.5	22.1	24.5	28 12.31	+ 0.11	−12.97	−13.03	13 27 59.39	− 0.06
	22	ζ Ophiuchi	T.	3	56.4	58.8	0.5	6.7	8.8	10.8	17.1	18.6	21.2	30 8.77	+ 0.11	−13.08	−13.08	16 29 55.80	− 0.05
	23	κ Ophiuchi	T.	.	28.0	30.6	32.2	38.3	40.4	42.4	48.6	50.4	52.7	51 40.40	+ 0.11	−13.12	−13.09	16 51 27.32	− 0.04
	24	Eunomia	T.	3	23.0	26.1	28.1	35.4	37.9	40.1	47.3	49.3	51.9	4 37.68	+ 0.12	. .	−13.09	17 4 24.71	. .
	25	Polyhymnia	T.	3	29.2	32.2	34.3	40.8	43.2	45.6	52.4	54.1	56.8	28 43.18	+ 0.12	. .	−13.10	17 28 30.20	. .
	26	Astræa	T.	3	27.0	29.6	31.4	37.5	39.8	41.8	48.2	50.1	52.6	33 39.78	+ 0.12	. .	−13.10	17 33 26.80	. .
	27	μ Herculis	T.	.	19.1	21.8	23.6	30.5	32.9	35.2	42.0	43.8	46.6	41 32.83	+ 0.11	−13.13	−13.10	17 41 19.84	+ 0.03
	28	22 Camelopard., S. P.	T.	3	4.3	57.1	52.4	35.0	29.1	23.8	5.8	1.9	54.8	4 29.86	+ 0.15	. .	−13.11	6 4 16.40	+ 0.60
	29	δ Ursæ Minoris	T.	.	. .	. .	17.0	52.0	27.0	1.0	35.0	. .	. .	15 26.54	− 0.09	. .	−13.11	18 15 13.34	+ 0.57
	30	51 Cephei, S. P.	T.	3	. .	. .	1.0	18.0	36.0	54.0	11.0	. .	. .	37 35.82	+ 0.36	. .	−13.12	6 37 23.06	+ 1.95
	31	Terpsichore	T.	3	10.8	13.7	15.8	23.2	25.6	28.2	35.7	37.6	40.6	51 25.69	+ 0.12	. .	−13.12	15 51 12.69	. .
	32	ζ Aquilæ	T.	.	23.3	26.0	27.6	33.8	36.0	38.1	44.4	46.0	48.5	59 35.97	+ 0.11	−13.21	−13.13	18 59 22.95	+ 0.12
28	33	Polaris, S. P.	T.	3	. .	. .	55.0	32.0	6.0	44.0	20.0	. .	. .	11 7.10	+ 1.91	. .	−13.43	1 10 55.65	+ 1.71
	34	α Virginis	T.	3	16.8	19.4	21.0	27.1	29.1	31.1	37.5	39.1	41.7	18 29.20	+ 0.11	−13.37	−13.43	13 18 15.88	− 0.05
	35	ζ Virginis	T.	.	0.3	3.1	4.6	10.9	12.7	14.8	21.0	22.5	25.2	28 12.79	+ 0.10	−13.45	−13.44	13 27 59.45	+ 0.01
	36	Moon I, N.	T.	4	0.4	3.2	4.7	11.0	13.1	15.3	21.5	23.0	25.9	56 13.13	+ 0.11	. .	−13.44	13 55 59.80	+65.14
	37	α Bootis	T.	3	40.1	43.1	44.5	51.1	53.2	55.3	1.8	3.5	6.2	9 53.20	+ 0.09	−13.50	−13.45	14 9 39.84	+ 0.06
29	38	Sun I, S.	N.	2	20.2	23.1	24.7	31.4	33.5	35.9	42.5	44.0	46.9	34 33.58	+ 0.10	. .	−13.80	6 34 19.88	. .
	39	Sun II, N.	N.	2	37.7	40.5	42.1	48.8	51.1	53.4	0.0	1.8	4.5	36 51.10	+ 0.10	. .	−13.80	6 36 37.40	. .
	40	Venus I, N.	N.	3	14.2	16.9	18.5	25.0	27.1	29.3	35.7	37.1	40.0	16 27.09	+ 0.11	. .	−13.83	8 16 13.37	+ 1.81
	41	Polaris, S. P.	N.	4	. .	. .	48.0	. .	. .	39.0	16.0	29.0	. .	11 2.20	+ 7.20	. .	−13.91	1 10 55.49	+ 0.56
	42	ζ Virginis	N.	3	0.9	3.5	5.0	11.1	13.1	15.1	21.2	22.8	25.4	28 13.12	+ 0.16	−13.85	−13.92	13 27 59.36	− 0.07
	43	η Bootis, (R.)	N.	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	44	5 Ursæ Minoris	N.	4	14.3	25.0	32.2	57.1	6.0	14.4	40.0	46.6	57.2	28 5.87	− 0.51	. .	−13.94	14 27 51.42	+ 0.27
	45	ε Bootis, (R.)	N.	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	46	β Ursæ Minoris	N.	4	. .	. .	7.4	15.4	23.1	30.5	38.5	. .	. .	51 22.98	− 0.44	. .	−13.95	14 51 8.59	+ 0.09
	47	β Bootis	N.	3	57.6	1.0	2.9	11.1	13.7	16.5	24.7	26.8	30.0	57 13.81	+ 0.02	. .	−13.95	14 56 59.88	+ 0.01
	48	48 Cephei, S. P.	N.	3	39.6	37.7	31.1	3.3	54.1	44.6	17.3	10.0	58.6	3 54.04	+ 0.93	. .	−13.95	3 3 41.02	+ 0.13
	49	β Libræ	N.	3	0.3	1.9	6.1	8.1	10.2	12.2	14.4	18.4	20.0	10 10.18	+ 0.18	−14.01	−13.95	15 9 56.41	+ 0.05
	50	γ Ursæ Minoris	N.	4	33.3	40.8	46.9	7.0	13.8	20.3	40.4	45.5	54.9	21 13.56	− 0.35	. .	−13.95	15 21 59.26	− 0.11

3.12.24.25.26.31. Wire A used.
11. Set E. in R. A.
36.44.46.48. Bisections at sets B and D.
41. R. A. over wires C_6 and D.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Corrections.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ″	r ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	57 0	5.5	6.0	0.8	1.2	29	620	. .	. .	. .	. .	10.5	57 2 25.7	. .	+ 1 26.9	108 10 13.8	— 0.8
2	57 0	5.5	6.0	0.8	1.2	30	. .	. .	. .	. .	822	10.5	57 2 4.8	. .	+ 1 26.9	108 9 52.9	— 0.8
3	58 14	8.3	7.2	2.1	4.0	30	. .	. .	. .	830	788	10.5	58 18 37.7	. .	+ 1 31.2	109 26 30.1	+ 1.2
4	42 10	11.2	10.5	4.3	7.5	23	580	660	. .	525	455	10.5	42 13 52.5	. .	+ 51.3	93 21 5.0	+ 1.6
5	352 12	16.8	15.0	10.7	10.0	23	545	420	. .	400	385	10.5	352 15 50.1	. .	— 7.6	43 22 3.7	+ 1.0
6	64 56	11.4	11.4	6.0	6.5	23	800	755	. .	690	600	10.5	64 59 49.4	. .	+ 2 0.6	116 8 11.2	+ 2.8
7	329 48	13.2	11.8	7.2	9.3	27	. .	988	. .	860	. .	10.5	329 50 44.6	. .	— 32.9	20 56 32.9	+ 0.7
8	359 38	12.8	11.4	7.0	6.1	19	075	118	. .	240	100	10.5	359 42 59.5	. .	— 0.3	50 49 20.4	+ 2.3
9	29 14	12.0	12.2	5.5	6.8	22	. .	628	. .	775	. .	10.5	29 18 4.9	. .	+ 31.8	80 24 57.9	+ 3.0
	5 4	11.0	9.0	6.0	5.0	24	340	310	. .	160	200	10.5	5 7 42.8	. .	+ 5.1	56 14 9.1	+ 0.8
10																	
11	70 30	10 7.3	7.0	1.0	1.2	15	. .	. .	. .	. .	390	10.5	70 53 59.6	. .	+ 2 42.0	122 3 2.8	
12	73 46	10.8	10.7	5.0	5.2	15	. .	. .	. .	. .	100	10.5	73 50 34.5	. .	+ 3 12.9	125 0 8.6	— 4.4
13	293 48	12.0	9.6	7.5	8.3	20	680	612	608	610	660	10.5	293 52 36.0	. .	— 2 7.5	344 56 49.7	+ 3.0
14	65 24	8.0	8.0	3.5	4.5	16	100	. .	. .	. .	. .	10.5	65 29 49.5	. .	+ 2 3.8	116 38 14.5	— 6.1
15	55 30	9.8	7.8	4.3	4.8	17	. .	. .	. .	260	. .	10.5	55 35 29.3	. .	+ 1 22.8	106 43 13.3	— 3.9
16	11 2	10 14.8	13.0	8.2	9.4	25	. .	. .	. .	355	370	10.5	11 5 21.2	460	+ 11.1	62 11 53.5	+ 2.0
17	359 48	3.1	2.2	29.5	26.6	25	452	358	. .	250	230	9.3	359 51 33.2	329	— 0.1	50 57 54.3	— 1.8
18	41 56	14.4	13.9	7.5	7.3	28	. .	792	585	388	. .	9.3	41 58 31.9	. .	+ 49.6	93 5 42.7	
19	307 28	12.8	12.5	8.1	8.5	27	180	. .	196	190	. .	9.3	307 30 53.5	332	— 1 11.9	358 36 2.8	— 1.1
20	49 18																
21	38 44	11.5	10.3	4.5	4.6	22	. .	535	. .	460	. .	9.3	38 48 8.1	335	+ 44.4	89 55 13.7	+ 0.2
22	49 6	7.4	7.3	1.8	0.5	22	. .	102	. .	940	. .	9.3	49 10 18.8	389	+ 1 4.7	100 17 44.7	— 0.4
23	29 14	7.4	6.4	1.4	0.5	23	. .	058	. .	174	. .	9.3	29 18 2.6	. .	+ 31.4	80 24 55.2	+ 0.5
24	70 26	5.4	4.8	29.0	27.5	28	770	771	. .	625	710	9.3	70 31 12.8	390	+ 2 36.8	121 40 10.8	— 4.5
25	65 24	5.2	5.6	29.5	29.0	28	. .	866	. .	872	. .	9.3	65 29 10.0	. .	+ 2 2.9	116 37 34.1	— 6.1
26	55 32	7.5	7.0	1.4	0.1	28	. .	992	. .	810	. .	9.3	55 37 8.0	388	+ 1 21.3	106 44 50.5	— 3.9
27	11 2	9.5	9.3	5.3	3.0	25	. .	879	. .	748	. .	9.3	11 5 18.5	. .	+ 11.0	62 11 50.7	— 0.6
28	288 16	12.4	11.8	8.5	7.6	31	061	090	. .	860	840	9.3	288 17 54.8	393	— 2 47.5	339 21 28.5	— 0.7
29	312 14	6.0	5.2	1.8	1.4	22	610	552	558	560	555	9.3	312 18 11.3	. .	— 1 1.5	3 23 31.0	— 1.7
30	306 6	11.3	10.8	7.3	6.6	25	890	892	831	860	878	9.3	306 9 15.2	392	— 1 16.5	357 14 19.9	— 1.3
31	73 20	5.6	6.0	29.8	29.4	29	300	440	. .	225	370	9.3	73 25 2.4	. .	+ 3 5.6	124 34 29.2	— 3.9
32	25 10	12.7	12.0	6.8	5.5	27	. .	383	. .	310	. .	9.3	25 10 52.6	. .	+ 26.3	76 17 40.1	+ 0.6
33	307 28	4.2	4.0	0.0	2.4	27	755	790	754	795	798	9.8	307 30 52.8	292	— 1 11.2	358 36 2.8	— 1.2
34	49 18	13.7.	13.3	7.6	7.8	26	. .	972	. .	933	. .	9.8	49 20 57.6	298	+ 1 3.8	100 28 22.6	0.0
35	38 44	13.1	12.0	6.5	7.3	22	. .	480	. .	386	. .	9.8	38 48 7.6	308	+ 44.2	89 55 13.0	— 0.5
36	46 22	5.6	5.4	29.2	29.0	25	. .	822	570	349	. .	9.8	46 25 26.9	324	+ 57.9	97 32 46.0	
37	18 58	14.6	13.5	8.5	8.4	26	. .	752	. .	768	. .	9.8	19 1 0.1	328	+ 19.0	70 7 40.3	+ 2.0
38	15 54	14.2	13.5	8.8	7.5	27	194	211	. .	. .	. .	10.0	15 56 55.0	. .	+ 15.6	67 3 31.8	— 2.3
39	15 22	13.7	11.1	6.8	6.4	25	. .	. .	191	240	. .	10.0	15 25 24.6	. .	+ 15.1	66 32 0.9	— 2.4
40	20 40	12.6	10.3	5.0	5.1	27	428	425	. .	233	278	10.0	20 42 54.4	276	+ 20.6	71 49 36.2	— 9.4
41	307 28	5.2	6.0	1.5	1.5	27	632	. .	. .	631	640	10.2	307 30 54.4	. .	— 1 12.3	358 36 3.3	— 0.7
42	38 44	8.7	8.2	2.0	1.9	22	. .	861	820	722	. .	10.2	38 48 6.9	364	+ 44.7	89 55 12.8	— 0.6
43	160 6	7.7	9.4	3.5	1.5	21	. .	662	615	535	. .	10.2	160 10 24.7	372	— 20.1	70 56 16.6	— 0.5
44	322 34	8.3	7.7	3.6	3.1	26	925	850	. .	860	849	10.2	322 37 4.4	385	— 42.7	13 42 42.9	— 2.8
45	168 42	6.5	7.7	2.7	0.2	28	. .	. .	670	610	575	10.2	168 44 37.8	. .	— 11.1	62 21 54.5	— 0.7
46	324 8	10.0	9.6	6.0	5.4	21	920	890	. .	865	868	10.3	324 12 18.7	. .	— 40.4	15 17 59.5	— 2.5
47	357 56	10.3	9.0	4.0	3.4	28	. .	308	262	191	. .	10.3	357 58 42.3	. .	— 2.0	49 5 1.5	— 1.3
48	296 6	7.7	7.4	4.0	3.0	23	392	462	. .	380	360	10.3	296 9 57.3	395	— 1 53.5	347 14 25.0	+ 0.8
49	47 42	8.5	8.8	2.8	2.2	22	444	411	. .	309	294	10.3	47 46 13.2	. .	+ 1 1.7	98 53 36.1	— 1.2
50	326 32	7.7	6.8	3.5	2.7	24	490	372	. .	310	395	10.3	326 35 44.4	. .	— 37.0	17 41 28.6	— 0.6

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
18	— 38 29.4	+ 15 47.1
36	— 41 12.9	+ 15 35.8

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
														m. s.	s.	s.	s.	h. m. s.	s.
1868. June 29	1	α Coronæ Borealis .	N.	.	7.7	10.5	12.4	19.2	21.5	23.6	30.7	32.4	35.6	29 21.51	+ 0.08	−13.90	−13.95	15 29 7.64	− 0.05
	2	α Serpentis, (R.) .	N.	4	49.6	52.1	53.7	59.9	2.0	4.0	10.2	11.7	14.2	38 1.93	+ 0.05	. .	−13.96	15 37 48.02	+ 0.05
	3	ζ Ursæ Minoris, (R.)	N.	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	4	τ Herculis, (R.) . .	N.	3	44.6	48.3	50.6	59.6	2.5	5.6	14.5	16.4	20.4	16 2.50	− 0.18	. .	−13.97	16 15 48.35	+ 0.06
	5	α Scorpii	N.	3	. .	. .	33.1	35.4	37.6	40.0	44.5	46.3	49.0	21 35.42	+ 0.23	−13.99	−13.97	16 21 21.68	+ 0.04
	6	ζ Ophiuchi . . .	N.	4	57.2	59.7	1.4	7.6	9.7	11.6	17.9	19.5	22.0	30 9.62	+ 0.18	−14.00	−13.97	16 29 55.83	− 0.02
	7	d Herculis . . .	N.	3	45.2	48.2	50.1	57.7	0.2	2.4	9.8	11.7	14.6	56 59.99	+ 0.06	. .	−13.98	16 56 46.07	+ 0.10
	8	b Ophiuchi . . .	N.	3	21.6	24.5	26.1	32.6	35.1	37.2	43.9	45.5	48.3	18 34.98	+ 0.22	−13.94	−13.98	17 18 21.22	− 0.04
	9	Astræa	N.	1	42.6	45.2	46.7	53.3	55.5	57.5	3.6	5.5	8.0	31 55.32	+ 0.20	. .	−13.99	17 31 41.53	. .
	10	ω Draconis . . .	N.	4	. .	. .	. .	. .	. .	. .	23.9	28.0	35.0	38 1.25	− 0.26	. .	−13.99	17 38 47.00	− 0.02
	11	ψ^1 Draconis . . .	N.	4	55.8	4.0	9.0	. .	. .	. .	2.6	7.4	16.0	44 35.77	− 0.36	. .	−13.99	17 44 21.42	+ 0.07
	12	ψ^2 Draconis . . .	N.	4	. .	. .	24.2	30.9	37.7	44.2	51.1	. .	. .	44 37.62	− 0.36	. .	−13.99	17 44 23.27	. .
	13	γ Draconis . . .	N.	4	. .	. .	. .	. .	. .	. .	2.3	4.5	8.8	53 49.09	− 0.04	. .	−13.99	17 53 35.06	− 0.14
	14	δ Ursæ Minoris .	N.	4	. .	. .	19.7	54.3	28.7	3.0	38.0	. .	. .	15 28.86	− 2.70	. .	−14.00	18 15 12.16	− 0.47
	15	ι Aquilæ . . .	N.	3	5.2	7.9	9.6	15.7	17.8	19.7	25.9	27.4	30.0	28 17.69	+ 0.18	−14.04	−14.00	18 28 3.87	+ 0.08
	16	α Lyræ	N.	3	28.9	32.1	34.1	42.0	44.6	47.2	55.1	57.2	0.3	32 44.61	+ 0.04	−14.04	−14.00	18 32 30.65	+ 0.04
30	17	α Tauri	T.	2	22.5	25.2	26.7	33.2	35.3	37.2	43.8	45.4	48.1	28 35.27	+ 0.15	−14.51	−14.48	4 28 20.94	+ 0.03
July 1	18	Sun I, S. . . .	T.	2	37.1	40.2	41.8	48.6	50.7	53.0	59.6	1.1	4.0	42 50.68	+ 0.12	. .	−14.52	6 42 36.28	. .
	19	Sun II, N. . . .	T.	.	54.7	57.6	59.1	6.0	8.2	10.4	17.0	18.6	21.5	45 8.12	+ 0.12	. .	−14.52	6 44 53.72	. .
	20	Venus I, N. . .	T.	3	1.7	4.4	6.0	12.4	14.5	16.6	23.0	24.7	27.4	14 14.52	+ 0.14	. .	−14.54	8 14 0.12	+ 1.35
	21	α Hydræ	T.	.	8.1	10.6	12.1	18.3	20.4	22.5	28.6	30.2	32.7	21 20.39	+ 0.23	−14.58	−14.56	9 21 6.06	+ 0.02
	22	Polaris, S. P. . .	T.	3	. .	. .	51.0	28.0	4.0	42.0	17.0	. .	. .	11 4.12	+ 9.31	. .	−14.63	1 10 58.80	+ 1.90
	23	α Virginis . . .	T.	3	17.8	20.4	21.9	28.1	30.2	32.3	38.4	40.0	42.6	18 30.19	+ 0.24	−14.52	−14.63	13 18 15.80	− 0.10
	24	α Caronæ Borealis .	T.	.	8.5	11.4	13.1	20.0	22.3	24.5	31.4	33.2	36.0	29 22.27	+ 0.10	−14.70	−14.66	15 29 7.71	+ 0.04
	25	α Serpentis, (R.) . .	T.	3	50.1	52.7	54.3	. .	2.5	. .	10.7	12.2	14.8	38 2.47	+ 0.10	. .	−14.67	15 37 47.92	− 0.01
	26	ε Serpentis . . .	T.	.	18.4	20.9	22.5	28.5	30.6	32.6	38.8	40.4	43.0	44 30.63	+ 0.19	−14.62	−14.67	15 44 16.15	− 0.06
	27	Saturn I, N. . .	T.	3	22.3	24.8	26.5	. .	. .	. .	43.7	45.4	48.1	52 35.13	+ 0.27	. .	−14.67	15 52 20.73	. .
	28	Saturn II . . .	T.	.	. .	. .	32.0	34.2	36.5	38.5	40.7	. .	. .	52 36.38	+ 0.27	. .	−14.67	15 52 21.98	. .
	29	β^1 Scorpii	T.	3	49.6	52.4	54.0	. .	. .	. .	11.3	12.9	15.6	58 2.63	+ 0.28	−14.69	−14.67	15 57 48.24	+ 0.07
	30	β^2 Scorpii	T.	3	. .	. .	58.7	0.8	3.2	5.2	7.5	. .	. .	58 3.08	+ 0.28	. .	−14.67	15 58 48.69	. .
	31	τ Herculis, (R,) . .	T.	3	45.6	49.2	51.5	0.3	3.4	6.1	15.3	17.4	21.2	16 3.34	− 0.16	. .	−14.68	16 15 48.50	+ 0.23
	32	η Draconis . . .	T.	.	3.5	9.0	12.3	25.1	29.5	33.9	47.0	50.3	55.5	22 29.57	− 0.19	. .	−14.68	16 22 14.70	− 0.65
	33	Moon I, N. . .	T.	4	26.2	28.9	30.5	37.2	39.4	41.6	48.2	49.8	52.6	33 39.38	+ 0.27	. .	−14.68	16 33 24.97	+65.60
	34	d Herculis . . .	T.	3	46.2	49.2	51.0	58.3	0.8	3.3	10.7	12.4	15.5	57 0.82	+ 0.07	. .	−14.69	16 56 46.20	+ 0.24
	35	b Ophiuchi . . .	T.	3	22.4	25.1	26.8	33.6	35.7	38.0	44.7	46.4	49.2	18 35.77	+ 0.29	−14.69	−14.69	17 18 21.37	+ 0.10
	36	Astræa	T.	2	0.7	3.7	5.3	12.2	13.9	16.1	22.6	24.2	26.7	30 13.93	+ 0.27	. .	−14.70	17 29 59.50	. .
	37	ψ^1 Draconis . . .	T.	3	. .	4.7	9.8	. .	. .	. .	3.5	8.4	. .	44 36.60	− 0.48	. .	−14.70	17 44 21.42	+ 0.12
	38	ψ^2 Draconis . . .	T.	.	. .	. .	25.2	32.0	38.6	45.4	52.3	. .	. .	44 38.70	− 0.48	. .	−14.70	17 44 23.52	. .
	39	γ Draconis . . .	T.	3	30.2	34.2	36.8	46.8	50.1	53.4	3.1	5.5	9.6	53 49.97	− 0.06	. .	−14.70	17 53 35.21	+ 0.02
	40	μ Sagittarii . . .	T.	3	56.2	58.8	0.5	7.1	9.3	11.5	18.0	19.5	22.4	6 9.26	+ 0.28	−14.81	−14.71	18 5 54.83	+ 0.06
	41	δ Ursæ Minoris . .	T.	3	. .	. .	22.0	57.0	32.0	5.0	41.0	. .	. .	15 31.52	− 2.83	. .	−14.71	18 15 13.98	+ 0.50
	42	ι Aquilæ, (R.) . .	T.	3	6.1	8.7	10.2	16.4	18.5	20.5	26.7	28.2	30.8	28 18.46	+ 0.17	. .	−14.71	18 28 3.92	+ 0.11
	43	50 Draconis . . .	T.	.	9.7	19.5	25.8	50.2	57.6	5.7	30.1	36.1	46.4	50 57.90	− 0.64	. .	−14.72	18 50 42.54	+ 0.44
	44	ζ Aquilæ . . .	T.	.	25.0	27.6	29.2	35.3	37.5	39.7	45.9	47.5	50.0	59 37.52	+ 0.16	−14.79	−14.72	18 59 22.96	+ 0.11
	45	δ Aquilæ . . .	T.	3	55.1	57.7	59.2	. .	7.6	. .	15.6	17.2	19.6	19 7.43	+ 0.20	−14.77	−14.73	19 18 52.90	+ 0.05
	46	Polaris	T.	2	. .	. .	37.0	57.0	. .	48.0	11.0	. .	. .	11 23.58	− 8.86	. .	−14.83	1 10 59.89	+ 2.50
	47	η Piscium . . .	T.	.	28.2	30.8	32.8	38.7	41.0	43.1	49.3	50.9	53.6	24 40.89	+ 0.15	−14.76	−14.83	1 24 26.21	− 0.02
	48	γ Tauri	N.	2	. .	. .	27.5	29.6	31.7	33.8	36.0	. .	. .	12 31.72	+ 0.22	−14.84	−14.84	4 12 17.10	+ 0.02
	49	ε Tauri	N.	2	56.5	59.1	0.7	. .	. .	. .	18.0	19.6	22.3	21 9.37	+ 0.20	−14.86	−14.84	4 20 54.73	+ 0.02
	50	ι Aurigæ . . .	N.	4	24.1	27.1	29.0	36.3	38.7	41.2	48.3	50.2	52.3	48 38.69	+ 0.12	−14.86	−14.85	4 48 23.96	− 0.02

9.36. Wire A used.
11.33.37.38. Bisections at sets B and D.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	11 40	10.6	10.3	5.0	4.1	24	658	554	. .	500	475	10.3	11 43 38.3	402	+ 11.6	62 50 11.1	+ 1.0
2	147 54	5.5	6.1	0.2	27.9	25	050	. .	. .	900	. .	10.3	147 57 37.0	. .	− 35.1	83 9 19.3	+ 0.5
3	219 14	2.6	5.1	0.6	27.1	24	. .	. .	120	. .	. .	10.3	219 17 50.7	. .	+ 45.7	11 47 44.6	− 1.5
4	187 40	9.5	10.7	5.9	2.6	22	252	276	. .	130	080	10.3	187 44 13.9	. .	+ 7.7	43 21 59.6	− 2.3
5																	
6	49 6	12.6	11.7	6.0	4.8	21	850	857	. .	731	710	10.3	49 10 18.8	416	+ 1 5.1	100 17 45.1	+ 0.1
7	5 4	8.4	6.9	2.1	1.6	24	598	518	. .	430	455	10.3	5 7 41.9	. .	+ 5.0	56 14 8.1	+ 0.5
8	62 52	7.2	7.8	2.2	1.5	28	190	160	. .	060	984	10.3	62 54 46.3	423	+ 1 49.7	114 2 57.2	− 0.4
9	55 34	7.3	7.3	1.4	0.5	27	. .	590	. .	512	. .	10.3	55 39 29.5	. .	+ 1 22.4	106 47 13.1	− 3.9
10	330 2	7.3	6.6	2.6	1.9	27	. .	. .	845	. .	. .	10.3	330 4 50.5	. .	− 32.5	21 10 39.2	− 2.5
11	326 38	5.3	4.7	0.7	0.6	26	278	. .	. .	. .	240	10.3	326 41 16.8	428	− 37.3	17 47 .0.7	− 0.8
12	326 38	5.3	4.7	0.7	0.6	28	. .	328	. .	211	. .	10.3	326 40 46.8	. .	− 37.3	17 46 30.7	
13	347 20	9.6	8.8	3.9	3.7	25	. .	. .	771	816	810	10.3	347 23 21.0	. .	− 12.9	38 29 29.3	+ 0.5
14	312 14	6.0	5.8	2.1	1.3	22	. .	629	593	625	. .	10.3	312 18 11.3	431	− 1 2.0	13 23 30.5	− 1.5
15	47 10	11.0	11.4	5.6	4.6	29	214	169	. .	030	038	10.3	47 12 27.5	. .	+ 1 0.9	98 19 49.6	− 2.5
16	0 10	13.3	11.9	7.6	6.9	24	. .	. .	053	. .	. .	10.3	0 13 43.2	. .	+ 0.2	51 20 4.6	0.0
17	22 36	17.3	16.5	10.6	9.4	27	. .	. .	110	. .	. .	9.0	22 38 51.6	361	+ 23.2	73 45 36.0	− 1.3
18	16 2	11.9	10.5	5.0	4.4	27	980	930	. .	. .	. .	9.0	16 4 45.5	. .	+ 15.9	67 11 22.6	− 2.4
19	15 30	17.1	15.1	9.3	9.0	25	. .	. .	. .	474	552	9.0	15 33 15.9	319	+ 15.4	66 39 52.5	− 2.3
20	21 0	17.6	15.5	9.4	9.4	24	558	512	. .	354	290	9.0	21 3 33.2	265	+ 21.0	72 10 15.4	− 9.8
21	46 54	17.5	17.4	8.8	9.8	22	. .	310	. .	162	. .	9.0	46 58 6.6	252	+ 58.0	98 5 25.8	− 1.0
22	307 28	18.1	18.5	13.0	13.3	26	863	828	873	828	805	8.9	307 30 53.2	. .	− 1 11.4	358 35 3.0	− 1.0
23	49 18	19.4	19.7	13.2	11.8	26	. .	682	. .	600	. .	8.9	49 20 56.0	303	+ 1 3.9	100 28 21.1	− 1.3
24	11 40	6.3	6.3	0.6	28.7	24	. .	. .	808	. .	. .	8.9	11 43 37.2	349	+ 11.5	62 50 9.9	+ 0.1
25	147 54	15.1	15.0	8.8	5.8	24	. .	304	303	190	. .	8.9	147 57 37.2	349	− 34.7	83 9 18.7	+ 0.1
26	33 58	21.9	21.0	15.0	12.8	29	. .	112	. .	010	. .	8.9	34 0 17.4	. .	+ 37.4	85 7 16.0	− 0.7
27	56 56	23.8	23.7	17.5	14.0	22	530	640	. .	556	492	8.9	56 59 54.6	. .	+ 1 25.2	108 7 41.0	− 0.8
28																	
29	58 14	14.4	14.3	7.4	6.5	21	083	. .	. .	. .	048	8.9	58 18 26.4	351	+ 1 29.6	109 26 17.2	−11.7
30	58 14	14.4	14.3	7.4	6.5	22	. .	220	. .	182	. .	8.9	58 18 9.2	. .	+ 1 29.6	109 26 0.0	−28.9
31	187 40	8.3	10.0	4.8	0.8	22	236	275	. .	246	108	8.8	187 44 13.2	. .	+ 7.5	43 22 0.5	− 0.9
32	337 2	12.7	11.7	7.4	5.8	27	. .	039	900	920	. .	8.8	337 4 58.5	. .	− 23.5	28 10 56.2	+ 1.3
33	56 16	14.8	14.3	7.8	6.5	25	. .	790	770	700	. .	8.8	56 19 14.7	361	+ 1 23.3	107 26 59.2	
34	5 4	14.4	13.5	8.0	5.8	24	. .	108	. .	030	. .	8.8	5 7 41.1	. .	+ 5.0	56 14 7.3	+ 0.2
35	62 52	13.4	13.8	7.8	6.2	27	. .	504	. .	480	. .	8.8	62 54 48.5	363	+ 1 48.3	114 2 58.0	+ 0.4
36	55 36	15.4	15.4	8.6	7.3	25	. .	030	. .	850	. .	8.8	55 42 0.3	363	+ 1 21.3	106 49 42.8	− 3.9
37	326 38	11.7	11.4	7.0	6.2	27	. .	770	. .	828	. .	8.8	326 41 15.6	. .	− 36.6	17 47 0.2	− 0.7
38	326 38	11.7	11.4	7.0	6.2	25	. .	790	. .	870	. .	8.8	326 40 45.3	. .	− 36.6	17 46 29.9	−31.0
39	347 20	13.0	12.0	7.2	6.3	25	. .	522	. .	553	. .	8.8	347 23 19.7	. .	− 12.5	38 29 28.4	+ 0.2
40	59 54	9.5	9.7	3.2	1.8	25	. .	823	. .	752	. .	8.8	59 57 18.9	371	+ 1 36.0	111 5 16.1	− 0.9
41	312 14	13.6	12.8	8.8	7.0	22	213	178	150	128	114	8.8	312 18 10.1	. .	− 1 1.3	3 23 30.0	− 1.4
42	132 44	9.2	10.2	3.0	1.0	25	170	164	. .	080	030	8.8	132 47 29.6	373	− 1 0.2	98 19 51.8	− 0.1
43	323 34	12.6	12.0	8.5	6.4	24	. .	712	640	580	. .	8.8	323 37 33.5	. .	− 41.1	14 43 13.6	− 2.0
44	25 10	14.2	13.8	7.8	6.4	27	. .	423	. .	253	. .	8.8	25 12 50.9	. .	+ 26.3	76 19 38.4	− 0.3
45	36 0	13.0	11.5	5.8	5.0	32	. .	. .	. .	. .	480	8.8	36 1 33.8	378	+ 40.6	87 8 35.6	+ 1.3
46	310 16	15.7	14.8	9.4	9.6	28	086	958	. .	988	070	8.8	310 18 38.6	373	− 1 5.6	1 23 54.2	− 1.7
47	24 10	15.2	14.1	7.3	7.7	25	. .	383	. .	292	. .	9.3	24 13 21.4	373	+ 25.1	75 20 7.7	− 1.2
48	23 32	12.4	10.9	3.8	4.7	27	. .	. .	. .	102	104	9.3	23 34 56.6	320	+ 24.0	74 41 41.8	− 1.7
49	19.56	10.3	9.2	2.9	3.5	21	. .	. .	. .	. .	852	9.3	20 0 18.2	. .	+ 20.1	71 6 59.5	− 2.0
50	5 52	9.9	8.1	2.5	2.3	21	480	460	. .	361	319	9.3	5 56 27.2	303	+ 5.7	57 2 54.1	− 1.3

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	′ ″
33	− 45 58.1	+ 15 · 7.8

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
July 2	1	Sun I, S. . . .	N.	3	45.6	48.3	50.0	56.7	58.9	1.2	7.7	9.5	12.2	46 58.90	+ 0.18	. .	−14.89	6 46 44.19	. .
	2	Sun II, N. . . .	N.	3	2.8	5.7	7.4	13.9	16.2	18.3	24.9	26.6	29.5	49 16.14	+ 0.18	. .	−14.89	6 49 1.43	. .
	3	Venus I, N. . .	N.	3	40.8	43.4	45.1	51.5	53.7	55.8	2.2	3.9	6.7	12 53.68	+ 0.21	. .	−14.92	8 12 38.97	+ 1.55
	4	Polaris, S. P. . .	N.	.	. .	. .	. .	. .	2.5	38.0	27.5	25.0	40.5	11 1.72	+10.66	. .	−15.03	1 10 57.35	− 0.53
	5	α Virginis, (R). . .	N.	2.4	18.1	20.9	22.3	28.6	30.7	32.7	39.0	40.4	43.0	18 30.63	+ 0.25	. .	−15.03	13 18 15.85	− 0.04
	6	η Bootis, (R.) . .	N.	5	27.0	29.8	31.4	37.9	40.1	42.2	48.7	50.3	53.0	48 40.04	+ 0.06	. .	−15.04	13 48 25.06	− 0.14
	7	α Bootis, (R.) . .	N.	4	41.6	44.4	46.0	52.5	54.6	56.8	3.5	5.1	7.8	9 54.70	+ 0.06	. .	−15.05	14 9 39.71	− 0.03
	8	α² Libræ.	N.	4	38.6	41.3	42.9	49.1	51.5	53.5	59.8	1.4	4.1	43 51.36	+ 0.37	−15.05	−15.06	14 43 36.67	− 0.03
	9	β Ursæ Minoris . .	N.	5	37.9	47.7	53.2	16.6	24.4	32.0	55.3	1.1	10.6	51 24.31	− 0.70	. .	−15.07	14 51 8.54	+ 0.25
	10	β Bootis	N.	4	. .	. .	9.5	12.1	14.9	17.6	20.3	. .	. .	57 14.88	+ 0.06	. .	−15.07	14 56 59.87	+ 0.05
	11	48 (H) Cephei, S. P. .	N.	4	50.2	38.7	31.7	3.9	55.0	45.9	18.0	11.0	59.3	3 54.86	+ 1.51	. .	−15.07	3 3 41.30	+ 0.17
	12	β Libræ, (R.) . .	N.	4	58.8	1.4	3.0	9.1	11.2	13.3	19.4	20.9	23.5	10 11.18	+ 0.24	. .	−15.07	15 9 56.35	+ 0.01
	13	μ Bootis	N.	4	31.3	34.5	36.4	44.1	46.8	49.4	57.1	59.0	2.2	19 46.75	+ 0.08	−14.98	−15.08	15 19 31.75	− 0.10
	14	α Serpentis . . .	N.	4	50.4	53.0	54.5	0.7	2.8	4.8	11.0	12.5	15.1	38 2.76	+ 0.26	−15.10	−15.08	15 37 47.94	+ 0.02
	15	Saturn I, S. . .	N.	4	. .	. .	19.5	21.6	24.0	26.1	28.3	. .	. .	52 23.90	+ 0.38	. .	−15.09	15 52 9.19	. .
	16	Saturn II, N. . .	N.	.	12.3	14.9	16.6	. .	. .	. .	33.7	35.4	38.0	52 25.15	+ 0.38	. .	−15.09	15 52 10.44	. .
	17	β Scorpii	N.	4	50.0	52.6	54.3	0.8	3.0	5.1	11.6	13.2	15.9	58 2.95	+ 0.39	−15.12	−15.09	15 58 48.25	+ 0.05
	18	ε Ursæ Minoris, (R.)	N.	3	. .	. .	. .	. .	14.8	30.1	0.3	11.5	30.2	59 59.74	− 3.00	. .	−15.11	16 59 41.63	+ 0.10
	19	α Herculis . . .	N.	3	. .	. .	. .	20.1	23.3	24.3	25.3	26.3	32.7	8 54.80	+ 0.22	−15.12	−15.12	17 8 39.90	0.00
	20	b Ophiuchi . . .	N.	3	22.6	25.4	27.0	33.7	36.0	38.2	44.9	46.6	49.4	18 35.98	+ 0.41	−15.12	−15.12	17 18 21.27	0.00
	21	Moon, N. . . .	N.	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	22	ψ¹ Draconis, (R.) .	N.	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	23	δ Ursæ Minoris. .	N.	2	. .	. .	22.5	57.8	32.7	6.3	40.3	. .	. .	15 31.88	− 4.29	. .	−15.14	18 15 12.45	+ 0.15
	24	α Tauri	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	25	α Aurigæ . . .	E.	.	. .	. .	6.0	8.8	11.7	14.6	17.5	. .	. .	7 11.72	+ 0.06	−15.51	−15.26	5 6 56.52	+ 0.21
3	26	Sun, S.	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	27	Sun II, N. . . .	E.	.	. .	. .	. .	. .	50.8	54.1	55.1	56.2	57.3	53 24.10	+ 0.21	. .	−15.31	6 53 9.00	−68.65
	28	Venus I, N. . .	E.	.	10.7	13.5	15.1	21.5	23.5	25.6	31.9	33.7	36.4	11 23.54	+ 0.24	. .	−15.34	8 11 8.44	+ 1.90
	29	α Hydræ	E.	.	8.8	11.3	12.8	19.1	21.2	23.1	29.3	30.8	33.5	21 21.10	+ 0.35	−15.41	−15.37	9 21 6.08	+ 0.04
	30	α² Libræ	E.	.	39.1	41.8	43.4	49.7	51.8	54.0	0.2	1.9	4.5	43 51.82	+ 0.39	−15.54	−15.52	14 43 36.69	0.00
	31	β Ursæ Minoris. .	E.	.	38.5	48.1	53.6	17.1	24.2	32.1	55.7	1.2	11.0	51 24.62	− 0.61	. .	−15.52	14 51 8.49	+ 0.26
	32	48 Cephei, S. P. .	E.	.	. .	. .	14.5	4.8	55.0	46.2	37.4	. .	. .	3 55.58	+ 1.46	. .	−15.52	3 3 41.52	+ 0.27
	33	β Libræ	E.	.	59.1	1.7	3.4	9.3	11.4	13.5	19.7	21.2	23.8	10 11.46	+ 0.35	−15.49	−15.53	15 9 56.28	− 0.05
	34	α Coronæ Bor., (R.)	E.	.	9.5	12.4	14.2	21.0	23.4	25.5	32.4	34.3	37.0	29 23.30	− 0.03	. .	−15.54	15 29 7.73	+ 0.08
	35	α Serpentis, (R.). .	E.	.	50.9	53.5	55.2	1.2	3.3	5.4	11.4	13.0	15.6	38 3.28	+ 0.12	. .	−15.54	15 37 47.86	− 0.06
	36	ε Serpentis . . .	E.	.	19.0	21.6	23.3	29.3	31.4	33.3	39.7	41.2	43.7	44 31.39	+ 0.30	−15.50	−15.54	15 44 16.15	− 0.05
	37	Saturn I . . .	E.	.	. .	. .	. .	. .	13.0	15.1	17.2	. .	. .	52 12.97	+ 0.40	. .	−15.55	15 51 57.82	. .
	38	Saturn II . . .	E.	.	. .	. .	. .	. .	. .	. .	22.9	24.6	27.2	52 14.35	+ 0.40	. .	−15.55	15 51 59.20	. .
	39	τ Herculis . . .	E.	.	46.0	49.7	52.0	0.7	3.7	6.7	15.7	18.1	21.7	16 3.81	+ 0.05	. .	−15.56	16 15 48.30	+ 0.06
	40	α Scorpii	E.	.	23.0	26.0	27.6	34.4	36.5	38.8	45.9	47.7	50.4	21 36.70	+ 0.44	−15.49	−15.56	16 21 21.58	− 0.05
	41	15 Draconis . . .	E.	.	59.3	6.6	10.9	27.8	33.7	39.2	56.4	0.5	7.6	28 33.56	− 0.33	. .	−15.56	16 28 17.67	− 0.08
	42	η Herculis . . .	E.	.	24.0	27.5	29.5	37.2	40.0	42.5	50.2	52.3	55.5	38 39.86	+ 0.11	. .	−15.57	16 38 24.40	+ 0.10
	43	κ Ophiuchi . . .	E.	.	. .	. .	38.5	40.7	42.8	44.8	46.9	. .	. .	51 42.74	+ 0.28	−15.64	−15.58	16 51 27.44	+ 0.09
	44	d Herculis . . .	E.	.	46.9	50.0	51.8	59.1	1.5	3.9	11.4	13.1	16.3	57 1.56	+ 0.16	. .	−15.58	16 56 46.14	+ 0.19
	45	ε Ursæ Minoris. .	E.	.	. .	. .	29.1	43.4	58.5	13.6	29.0	. .	. .	59 58.79	− 1.61	. .	−15.58	16 59 41.60	+ 0.17
	46	α Herculis . . .	E.	.	42.5	45.4	46.9	53.3	55.4	57.5	3.6	5.1	7.8	8 55.28	+ 0.25	−15.63	−15.58	17 8 39.95	+ 0.05
	47	γ² Sagittarii . . .	E.	.	23.3	26.4	28.2	35.2	37.6	40.0	47.2	48.8	51.8	57 37.61	+ 0.46	−15.52	−15.60	17 57 22.47	− 0.11
	48	μ Sagittarii . . .	E.	.	56.8	59.6	1.4	8.0	10.1	12.2	18.7	20.2	23.2	6 10.02	+ 0.41	−15.56	−15.60	18 5 54.83	+ 0.04
	49	δ Ursæ Minoris. .	E.	.	. .	. .	23.0	57.5	31.5	6.0	42.0	. .	. .	15 31.92	− 4.02	. .	−15.61	18 15 12.29	+ 0.16
	50	Moon I, N. . .	E.	.	1.8	4.0	5.7	12.6	14.7	17.0	23.4	25.3	28.1	20 14.73	+ 0.41	. .	−15.61	18 19 59.53	+65.50

9.11.18.22. Bisections at sets B and D.
19. Set E and VII in R. A.
27, Set E in R. A.
31.50. Bisections at sets B and D.
32. Bisections at C_1, C_3, and C_6.
43. A change of one revolution made in reduction.
50. Microscope revolutions not recorded.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent. Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″								° ′ ″		′ ″	° ′ ″	″
1	16 6	19.3	18.8	11.8	11.2	25	505	458	. .	. .	. .	9.3	16 9 16.2	. .	+ 15.9	67 15 53.3	− 2.4
2	15 34	18.8	17.0	10.2	10.3	24	. .	. .	. .	319	286	9.3	15 37 48.6	249	+ 15.3	66 44 25.1	− 2.3
3	21 10	18.0	16.2	9.1	9.6	25	042	942	. .	854	766	9.3	21 13 26.1	225	+ 21.1	72 20 8.4	− 9.9
4	307 28	10.0	10.2	3.7	4.7	27	. .	. .	502	497	. .	9.4	307 30 52.3	273	− 1 10.9	358 36 2.6	− 1.5
5	130 36	8.8	11.2	3.3	2.4	26	. .	. .	. .	875	888	9.4	130 39 1.6	. .	− 1 3.5	100 28 23.1	+ 0.8
6	160 6	9.4	12.1	4.2	2.9	21	520	520	. .	452	406	9.4	160 10 24.2	288	− 19.7	70 56 16.7	− 0.1
7	160 56	7.2	7.7	1.8	28.7	27	194	197	. .	055	019	9.4	160 59 1.3	. .	− 18.9	70 7 38.8	+ 0.9
8	54 18	11.2	11.5	4.6	3.5	23	. .	. .	425	. .	. .	9.4	54 21 54.1	310	+ 1 16.5	105 29 31.8	+ 0.8
9	324 8	11.1	10.2	5.7	4.8	21	820	890	. .	814	849	9.4	324 12 18.2	313	− 39.7	15 18 59.7	− 1.9
10	357 56	12.5	10.7	5.7	4.1	28	. . .	. .	145	. .	. .	9.4	357 58 41.3	. .	− 1.9	49 5 0.6	− 1.7
11	296 6	9.2	8.8	4.5	3.9	23	481	531	. .	486	434	9.4	296 9 54.0	. .	− 1 51.5	347 14 23.7	− 0.2
12	132 10	13.5	14.0	6.9	5.0	24	070	960	. .	900	842	9.5	132 13 44.2	. .	− 1 0.6	98 53 37.6	+ 0.4
13	1 0	15.7	14.2	8.5	7.7	27	230	141	. .	040	015	9.5	1 2 54.4	318	+ 0.1	52 9 16.6	− 0.8
15	32 0	15.7	15.2	7.3	7.1	29	236	235	. .	082	095	9.5	32 2 22.9	. .	+ 34.5	83 9 18.6	+ 0.1
16	56 56	8.0	7.9	1.4	0.0	24	150	. .	. .	. .	950	9.5	56 59 47.8	. .	+ 1 24.7	108 7 33.7	− 0.8
16	56 56	8.0	7.9	1.4	0.0	25	. .	198	. .	054	. .	9.5	56 59 31.5	. .	+ 1 24.7	108 7 17.4	− 0.8
17	58 14	9.0	8.9	1.6	0.9	20	800	756	. .	646	606	9.5	58 18 38.2	325	+ 1 29.1	109 26 28.5	− 0.4
18	223 16	8.7	11.2	3.8	1.2	20	. .	. .	210	104	195	9.5	223 30 44.7	341	+ 52.2	7 44 44.3	− 0.7
19	24 16	13.7	12.5	5.9	5.3	21	. .	. .	. .	. .	030	9.5	24 20 28.2	. .	+ 25.1	75 27 14.5	+ 0.3
20	62 52	8.0	8.7	2.6	1.0	27	960	942	. .	840	824	9.5	62 54 48.2	. .	+ 1 47.8	114 2 57.2	− 0.5
21	57 57	12 2.1	2.1	23.1	24.4	28	609	595	512	401	369	9.5	57 59 46.3	351	+ 1 28.5	109 7 36.0	
22	213 16	7.7	9.2	4.3	1.6	28	. .	115	064	000	. .	9.5	213 18 45.2	. .	+ 36.4	17 46 59.6	− 1.0
23	312 14	7.8	6.8	2.2	1.3	22	742	735	648	711	671	9.5	312 18 8.5	358	− 1 1.0	3 23 28.7	− 2.3
24	22 36	20.2	19.7	13.7	10.2	26	963	860	. .	762	735	9.7	22 38 54.2	. .	+ 23.0	73 35 38.4	+ 1.3
25	352 58	10 23.8	21.8	17.0	14.5	21	005	940	. .	928	015	9.7	353 2 20.8	. .	− 5.7	44 8 36.3	+ 1.7
26	16 12	18.5	17.3	10.3	11.0	21	. .	. .	852	. .	. .	9.7	16 14 11.9	. .	+ 15.9	67 20 49.0	− 2.4
27	15 40	15.4	15.3	8.5	8.2	19	. .	. .	. .	. .	850	9.7	15 42 43.7	277	+ 15.4	66 49 20.3	− 2.3
28	21 20	20.5	19.4	12.8	12.1	26	506	526	. .	362	300	9.7	21 23 0.2	. .	+ 21.4	72 29 42.8	−10.2
29	46 54	19.4	19.2	12.9	11.0	22	020	095	. .	950	840	9.7	46 58 8.5	250	+ 58.0	98 5 27.7	+ 1.2
30	54 18	20.0	21.8	14.0	13.3	22	885	845	. .	790	680	10.0	54 21 54.5	. .	+ 1 17.1	105 29 32.8	+ 1.8
31	324 8	10 21.0	20.0	14.5	14.0	21	. .	285	235	195	. .	10.0	324 12 18.5	. .	− 39.9	15 17 59.8	− 1.7
32	296 6	22.0	21.5	16.7	16.1	22	550	. .	580	. .	620	10.0	296 9 56.1	. .	− 1 52.3	347 14 25.0	+ 1.2
33	47 42	12.8	14.2	6.0	5.8	22	060	990	. .	950	835	10.0	47 46 15.0	. .	+ 1 1.0	98 53 37.2	+ 0.1
34	168 12	16.5	15.0	8.0	5.8	21	460	405	. .	340	. .	10.0	168 16 22.1	. .	− 11.5	62 50 10.6	+ 1.1
35	147 54	10 9.2	9.4	3.5	2.0	24	. .	. .	. .	693	690	10.0	147 57 35.9	. .	− 34.7	83 9 20.0	+ 1.6
36	33 58	16.5	15.0	7.5	8.8	29	565	520	. .	435	310	10.0	34 0 18.2	. .	+ 37.4	85 7 16.8	+ 0.3
37																	
38																	
39	352 12	16.2	15.0	9.3	8.2	23	. .	. .	. .	445	560	10.0	352 15 48.5	. .	− 7.5	43 22 2.2	+ 1.2
40	64 56	16.8	17.5	10.0	10.3	23	335.	282	. .	252	225	10.0	64 59 50.8	. .	+ 1 58.4	116 8 10.4	+ 1.8
41	329 48	17.3	16.2	11.3	10.2	27	. .	880	. .	805	. .	10.0	329 50 41.9	. .	− 32.2	20 56 30.9	+ 0.5
42	359 38	14.7	14.6	8.8	7.5	19	090	110	. .	010	900	10.0	359 42 58.5	. .	− 0.3	50 49 19.4	+ 2.9
43	29 14	10 14.5	13.8	7.2	6.0	21	850	762	. .	. .	. .	10.0	29 18 2.6	. .	+ 31.2	80 24 55.0	+ 1.2
44	5 4	14.0	12.5	5.5	6.5	24	235	250	. .	. .	. .	10.0	5 7 41.6	. .	+ 5.0	56 14 7.8	+ 1.1
45	316 36	14.0	13.2	7.8	7.5	25	850	790	755	770	755	10.0	316 39 15.8	. .	− 52.5	7 44 44.5	− 0.3
46	24 18	10 20.0	19.7	12.5	11.8	28	575	555	. .	538	440	10.0	24 20 28.4	. .	+ 25.1	75 27 14.7	+ 0.7
47	69 12	11.2	12.8	3.8	5.2	21	. .	. .	. .	195	125	10.0	69 16 27.4	. .	+ 2 25.8	120 25 14.4	+ 0.3
48	59 54	13.8	15.0	8.0	8.5	25	538	540	. .	400	350	10.0	59 57 19.8	. .	+ 1 36.9	111 5 17.9	+ 0.9
49	312 14	15.0	13.3	8.8	9.5	22	230	181	240	200	160	10.0	312 18 9.5	. .	− 1 1.1	3 23 29.6	− 1.1
50	58 40	13.8	14.3	8.0	7.8	28	762	. .	745	. .	700	10.0	58 43 0.0	. .	+ 1 31.3	109 50 52.5	

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
21	− 46 29.2	+ 15 0.8
50	− 46 32.5	+ 14 55.0

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
July 3	1	1 Aquilæ . . .	E.	.	. .	. .	14.9	17.2	19.1	21.3	23.2	. .	. .	28 19.14	+ 0.35	−15.63	−15.62	18 28 3.87	+ 0.05
	2	Polaris . . .	T.	.	56.0	57.0	46.0	8.0	34.0	. .	. .	. .	. .	11 32.50	−14.75	. .	−16.03	1 11 1.72	+ 2.45
	3	θ Ceti . . .	T.	3	29.5	32.0	33.5	39.8	41.8	43.8	50.0	51.5	54.0	17 41.77	+ 0.50	−15.99	−16.03	1 17 26.24	− 0.04
	4	η Piscium . . .	T.	3	29.2	32.0	33.5	39.9	42.0	44.2	50.5	52.0	54.7	24 42.00	+ 0.36	−16.01	−16.04	1 24 26.32	+ 0.02
	5	α Tauri . . .	T.	.	24.0	26.7	28.3	34.6	36.8	38.8	45.2	46.8	49.5	28 36.74	+ 0.34	−16.11	−16.12	4 28 20.96	− 0.01
4	6	Sun I . . .	T.	.	. .	. .	10.3	12.4	14.7	16.8	19.2	. .	. .	55 14.68	+ 0.30	. .	−16.19	6 54 58.79	. .
	7	Sun II . . .	T.	.	18.6	21.2	23.0	29.7	31.8	34.2	40.8	42.4	45.2	57 31.88	+ 0.30	. .	−16.19	6 57 15.99	. .
	8	Venus I, N. . .	T,	3.2	31.8	34.6	36.1	42.5	44.6	46.8	53.2	54.8	57.5	9 44.66	+ 0.33	. .	−16.22	8 9 28.77	+ 1.92
	9	η Virginis . . .	T.	.	13.7	16.2	17.8	24.0	25.9	27.8	34.0	35.5	38.1	13 25.89	+ 0.45	−16.33	−16.34	12 13 10.00	− 0.02
	10	Polaris, S. P. . .	T.	.	. .	. .	50.0	23.0	. .	39.0	16.0	. .	. .	11 2.30	+15.67	. .	−16.36	1 11 1.61	+ 1.90
	11	α Lyræ . . .	T.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	12	51 Cephei, S. P. . .	T.	.	. .	. .	58.0	14.0	31.0	50.0	. .	. .	. .	37 32.28	+ 8.28	. .	−16.52	6 37 24.04	+ 2.12
	13	β Lyræ . . .	T.	.	16.5	19.6	21.4	28.6	31.3	33.7	41.0	42.7	45.7	45 31.17	+ 0.21	−16.54	−16.52	18 45 14.86	+ 0.04
	14	ζ Aquilæ . . .	T.	.	26.5	29.2	30.6	37.0	39.2	41.3	47.5	49.1	51.8	59 39.13	+ 0.36	−16.58	−16.53	18 59 22.96	+ 0.05
	15	Moon II, N. . .	T.	4	6.2	7.7	12.3	14.3	16.6	18.8	21.1	25.5	27.2	15 16.63	+ 0.57	. .	−16.53	19 15 0.67	−65.11
	16	δ Aquilæ . . .	T.	3	56.8	59.4	0.9	7.0	9.1	11.1	17.3	18.7	21.3	19 9.07	+ 0.42	−16.59	−16.54	19 18 52.95	+ 0.06
6	17	Sun I, S. . .	N.	3	16.1	18.9	20.5	27.2	29.2	31.4	38.1	39.7	41.6	3 29.19	+ 0.31	. .	−17.55	7 3 11.95	. .
	18	Sun II, N. . .	N.	3	32.8	35.6	37.3	44.0	46.2	48.4	55.0	56.7	59.5	5 46.17	+ 0.31	. .	−17.55	7 5 28.93	. .
	19	Venus I, N. . .	N.	2	. .	. .	. .	1.0	3.0	5.3	9.7	11.2	13.9	6 1.04	+ 0.36	. .	−17.57	8 5 43.83	+ 1.94
	20	α Tauri . . .	E.	.	25.8	28.5	30.0	36.4	38.5	40.6	47.0	48.6	51.3	28 38.52	+ 0.40	−17.80	−17.97	4 28 20.95	− 0.09
	21	α Aurigæ . . .	E.	.	56.6	0.3	2.5	11.3	14.3	17.2	26.0	27.8	31.7	7 14.19	+ 0.07	−17.89	−17.98	5 6 56.28	− 0.13
	22	β Tauri . . .	E.	.	0.6	3.6	5.3	12.3	14.6	17.0	23.9	25.9	28.6	18 14.62	+ 0.28	−18.01	−17.98	5 17 56.92	+ 0.02
7	23	Sun I, N. . .	E.	.	. .	. .	32.1	33.6	36.0	38.2	39.9	. .	. .	7 35.97	+ 0.34	. .	−18.02	7 7 18.29	. .
	24	Sun II, S. . .	E.	.	39.9	42.4	44.2	50.8	53.0	55.2	1.7	3.5	6.3	9 53.00	+ 0.34	. .	−18.02	7 9 35.32	. .
	25	Venus I, N. . .	E.	.	44.4	47.2	48.7	55.3	57.4	59.3	5.9	7.5	10.2	3 57.32	+ 0.39	. .	−18.04	8 3 39.67	+ 1.97
	26	α Hydræ . . .	E.	.	. .	. .	19.4	. .	. .	25.6	27.8	. .	. .	21 23.59	+ 0.59	−18.16	−18.08	9 21 6.10	+ 0.05
	27	α Leonis . . .	E.	.	25.5	28.2	29.7	35.9	38.1	40.2	46.3	48.0	50.6	1 38.06	+ 0.43	−18.05	−18.09	10 1 20.40	− 0.05
	28	γ¹ Leonis . . .	E.	.	. .	. .	54.9	57.1	59.2	1.3	3.6	. .	. .	12 59.22	+ 0.36	−18.06	−18.10	10 12 41.48	− 0.02
	29	1 Aquilæ . . .	E.	.	9.2	11.8	13.4	19.6	21.6	23.5	29.8	31.5	34.0	28 21.60	+ 0.59	−18.30	−18.30	18 28 3.89	+ 0.04
	30	α Lyræ . . .	E.	.	33.0	36.4	38.4	46.3	48.7	51.3	59.2	1.2	4.6	32 48.79	+ 0.17	−18.32	−18.31	18 32 30.65	+ 0.01
	31	β Lyræ . . .	E.	.	18.2	21.2	23.2	30.6	33.0	35.5	42.6	44.5	47.6	45 32.94	+ 0.23	−18.32	−18.31	18 45 14.86	+ 0.03
	32	σ Sagittarii . . .	E.	.	11.8	14.2	16.0	22.7	25.0	27.3	34.2	36.0	38.7	47 25.10	+ 0.75	−18.36	−18.31	18 47 7.54	+ 0.02
	33	β Orionis . . .	T.	.	17.1	19.6	21.4	27.4	29.6	31.7	37.8	39.5	41.9	8 29.56	+ 0.64	−18.72	−18.73	5 8 11.47	0.00
	34	β Tauri . . .	T.	.	. .	. .	. .	13.0	15.3	17.7	24.6	26.4	29.3	18 15.35	+ 0.31	−18.75	−18.74	5 18 56.92	0.00
8	35	α Canis Venat. . .	T.	.	54.5	57.8	59.6	7.6	10.3	12.9	20.6	22.7	26.0	50 10.22	+ 0.18	−18.98	−18.96	12 50 51.44	+ 0.03
	36	Polaris, S. P. . .	T.	.	. .	52.0	30.0	6.0	41.0	14.0	29.0	28.0	41.0	11 3.99	+20.54	. .	−18.97	1 11 5.56	+ 2.64
10	37	κ Ophiuchi . . .	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	38	ε Ursæ Minoris . .	E.	.	. .	. .	33.1	48.7	3.8	18.5	34.3	. .	. .	0 3.75	− 2.91	. .	−20.55	16 59 40.29	− 0.40
	39	γ Draconis . . .	E.	.	36.1	40.3	42.6	52.6	55.7	59.0	9.0	11.2	15.4	53 55.77	+ 0.03	. .	−20.58	17 53 35.22	+ 0.05
	40	γ² Sagittarii . . .	E.	.	. .	. .	37.8	40.2	42.5	44.8	47.3	. .	. .	37 42.50	+ 0.67	−20.59	−20.58	17 57 22.59	− 0.02
	41	δ Ursæ Minoris . .	E.	.	. .	. .	. .	. .	37.0	. .	. .	. .	. .	15 37.10	− 5.64	. .	−20.59	18 15 10.87	− 0.20
	42	ω Piscium . . .	T.	.	41.9	44.4	46.0	52.2	54.2	56.2	2.4	4.0	6.5	52 54.20	+ 0.43	−20.99	−20.98	23 52 33.65	− 0.01
	43	Moon II, N. . .	T.	3	19.6	21.1	25.3	27.4	29.5	31.5	33.8	37.9	39.4	9 29.50	+ 0.49	. .	−20.99	0 9 9.00	−61.90
	44	Polaris . . .	T.	.	. .	. .	56.0	19.0	43.0	8.0	31.0	. .	. .	11 43.70	−16.00	. .	−21.02	1 11 6.68	+ 1.74
	45	θ¹ Ceti. . . .	T.	.	34.6	37.2	38.7	44.8	47.0	49.1	55.2	56.6	59.5	17 46.97	+ 0.53	−21.00	−21.03	1 17 26.47	− 0.03
	46	η Piscium . . .	T.	.	34.5	37.1	38.8	45.0	47.1	49.3	55.5	57.1	59.9	24 47.14	+ 0.37	−20.94	−21.03	1 24 26.48	− 0.04
	47	β Orionis . . .	T.	3	19.7	22.2	23.9	30.1	32.1	34.2	40.2	41.8	44.5	8 32.08	+ 0.53	+21.07	−21.18	5 8 11.43	− 0.10
	48	β Tauri . . .	T.	.	3.8	6.9	8.6	15.6	17.9	20.3	27.2	28.8	31.7	18 17.86	+ 0.26	−21.14	−21.18	5 17 56.94	− 0.05
11	49	Sun I, N. . .	T.	2	. .	. .	. .	. .	. .	. .	8.9	10.6	13.2	24 0.06	+ 0.32	. .	−21.25	7 23 39.13	. .
	50	Sun II, S. . .	T.	3	3.3	6.0	7.7	14.4	16.5	18.7	25.3	27.1	29.8	26 16.53	+ 0.32	. .	−21.25	7 25 55.60	. .

32. Wire B used.
49. Seems 1 rev. wrong.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	47 10	19.7	19.5	12.4	11.8	28	. .	. .	. .	410	260	10.0	47 12 30.3	. .	+ 1 0.1	98 19 51.6	− 0.2
2	310 16.	16.6	17.7	10.9	11.3	27	910	890	862	868	880	9.0	310 18 39.3	. .	− 1 5.2	1 23 55.3	− 0.6
3	47 42	15.6	17.0	9.3	8.5	28	. .	. .	. .	978	940	9.0	47 44 23.0	344	+ 1 1.4	98 51 45.6	− 1.6
4	24 10	15.5	15.4	8.0	8.0	25	. .	360	. .	250	. .	9.0	24 13 21.0	347	+ 24.9	75 20 7.1	− 1.4
5	22 36	17.1	16.0	8.5	8.2	27	. .	196	. .	036	. .	9.0	22 38 52.6	303	+ 22.9	73 45 36.7	− 0.3
6																	
7																	
8	21 30	19.8	18.3	10.3	11.3	29	860	642	. .	538	521	8.8	21 32 11.4	249	+ 21.2	73 38 53.8	−10.3
9	38 46	19.3	17.3	8.9	8.7	26	. .	769	. .	660	. .	8.9	38 48 57.4	215	+ 43.3	89 56 1.9	− 1.4
10	307 28	14.6	14.5	7.8	8.0	27	173	071	. .	084	130	8.9	307 30 53.4	258	− 1 10.5	358 36 4.1	0.0
11	0 10	18.6	18.3	12.3	10.5	23	. .	720	. .	638	. .	9.2	0 13 43.0	. .	+ 0.5	51 20 4.7	+ 1.6
12	306 6	18.5	19.5	14.5	13.5	25	. .	544	554	538	. .	9.2	306 9 12.6	343	− 1 15.6	357 14 18.2	− 1.0
13	5 36	18.5	19.0	12.3	11.6	19	. .	685	. .	730	. .	9.2	5 40 43.2	. .	+ 5.5	56 47 9.9	+ 0.4
14	25 8	21.6	21.7	14.2	13.2	19	. .	035	. .	960	. .	9.2	25 12 51.5	343	+ 26.0	76 19 38.7	+ 0.6
15	58 24	19.0	18.3	9.6	10.6	20	813	860	853	892	864	9.2	58 28 26.4	. .	+ 1 29.9	109 36 17.5	
16	36 0	17.1	17.3	9.3	9.8	32	. .	386	. .	286	. .	9.2	36 1 31.8	345	+ 40.3	87 6 33.3	− 0.5
17	16 28	10 24.0	23.5	17.2	15.8	24	955	952	. .	. .	. .	9.5	16 31 19.7	251	+ 16.1	67 37 57.0	− 2.4
18	15 56	10 22.4	22.2	15.5	13.9	22	. .	. .	. .	805	804	9.5	15 59 51.9	251	+ 15.5	67 6 28.6	− 2.4
19	21 46	10.8	10.6	2.2	2.4	24	870	800	. .	655	662	9.5	21 49 35.3	222	+ 21.6	72 56 18.1	−10.7
20	22 36	10 13.4	13.6	6.8	4.8	27	. .	470	. .	272	. .	10.0	22 38 52.5	. .	+ 23.0	73 45 36.7	− 0.1
21	352 58	10 12.5	9.5	5.5	3.5	21	812	685	. .	. .	. .	10.0	353 2 21.8	. .	− 6.6	44 8 36.4	+ 1.4
22	10 20	10.5	9.9	3.5	2.4	23	022	965	. .	873	853	10.0	10 24 3.7	. .	+ 10.0	61 30 34.9	− 0.4
23	16 2	15.3	14.6	6.8	6.1	21	. .	440	. .	. .	. .	10.0	16 6 23.1	227	+ 15.5	67 12 59.8	− 2.4
24	16 34	9.6	8.7	1.8	2.3	23	. .	. .	. .	712	665	10.0	16 37 51.9	. .	+ 16.1	67 44 29.2	− 2.5
25	21 54	6.0	7.7	29.0	27.7	24	405	310	. .	220	190	10.0	21 57 46.9	. .	+ 21.8	73 4 29.9	−10.8
26	46 54	9.0	9.7	1.5	0.0	22	805	780	. .	. .	. .	10.0	46 58 8.0	. .	+ 57.8	96 5 26.9	+ 0.9
27	26 14	10 7.8	6.8	0.0	29.7	28	915	825	. .	. .	. .	10.0	26 16 36.7	. .	+ 26.6	77 23 24.5	+ 0.3
28	18 20	10 9.6	8.7	1.7	1.4	27	630	520	. .	460	508	10.0	18 22 54.5	. .	+ 17.9	69 29 33.6	− 0.3
29	47 10	10 10.5	12.5	4.0	3.0	29	. .	100	. .	020	. .	10.0	47 12 28.6	. .	+ 59.1	98 19 48.9	− 2.5
30	0 10	13.5	13.8	8.0	5.7	24	050	. .	. .	. .	140	10.0	0 13 42.5	. .	+ 0.2	51 20 3.9	+ 1.6
31	5 38	8.2	9.0	2.3	1.8	28	. .	385	. .	328	. .	10.0	5 40 41.8	. .	+ 5.5	56 47 8.5	0.0
32	65 18	5.7	8.8	1.3	1.0	25	. .	565	. .	650	. .	10.0	65 18 55.5	. .	+ 1 58.5	116 27 15.2	− 0.8
33	47 10	7.6	8.5	0.4	29.7	22	. .	996	. .	990	. .	10.0	47 14 4.9	. .	+ 58.7	98 21 24.8	− 1.6
34	10 20	18.7	19.0	12.4	10.5	22	. .	. .	. .	186	325	10.0	10 24 4.3	262	+ 10.0	61 30 35.5	+ 0.2
35	359 48	9.4	9.9	2.3	1.3	24	. .	879	. .	763	. .	10.0	359 51 35.6	. .	− 0.1	50 57 56.7	+ 0.9
36	307 28	6.2	8.5	1.6	1.6	27	638	622	578	551	550	10.0	307 30 54.0	258	− 1 10.6	358 36 4.6	+ 0.1
37	29 14	11.3	11.5	5.5	3.5	22	. .	. .	. .	938	. .	8.5	29 18 0.4	. .	+ 31.3	80 24 52.9	0.0
38	316 36	6.5	7.8	1.0	0.0	26	380	305	305	330	265	8.5	316 39 12.9	. .	− 52.6	7 44 41.5	− 1.7
39	347 20	7.9	7.6	2.3	1.8	26	338	278	. .	260	075	8.5	347 23 13.7	385	− 12.4	38 29 22.5	− 3.0
40	69 12	7.5	10.0	2.0	1.2	21	. .	. .	. .	540	400	8.5	69 16 24.2	. .	+ 2 26.6	120 25 12.0	− 2.5
41	312 14	4.0	3.5	29.8	27.7	22	. .	. .	935	. .	. .	8.5	312 18 7.1	. .	− 1 1.6	3 23 26.7	− 2.1
42	32 44	4.8	5.6	28.3	25.8	35	. .	386	. .	388	. .	9.5	32 44 57.6	383	+ 35.9	83 51 54.7	− 0.6
43	41 30	6.8	8.0	1.4	29.3	20	943	018	386	620	781	9.5	41 34 29.6	387	+ 49.6	92 41 40.4	
44	310 16	7.0	7.0	1.1	1.1	28	596	513	574	545	573	9.5	310 18 39.5	395	− 1 6.0	1 23 54.7	− 0.8
45	47 42	6.2	7.3	0.3	0.8	29	. .	850	. .	728	. .	9.5	47 44 20.8	393	+ 1 1.6	98 51 43.6	− 2.2
46	24 10	10 1.5	1.0	24.0	23.3	26	385	420	. .	283	301	9.5	24 13 19.9	390	+ 25.2	75 20 6.3	− 0.9
47	47 10	10.5	11.4	3.8	4.6	22	. .	886	. .	802	. .	10.0	47 14 3.6	294	+ 59.2	98 21 24.0	− 1.8
48	10 20	7.3	7.7	1.5	0.3	23	250	186	. .	081	081	10.0	10 24 2.7	294	+ 10.0	61 30 33.9	− 1.4
49	16 32	10 10.7	10.9	3.8	3.7	23	. .	130	150	. .	. .	10.0	16 36 0.4	. .	+ 16.2	67 42 37.8	− 2.5
50	17 4	10 9.1	9.8	3.3	2.4	23	. .	. .	. .	980	020	10.0	17 7 46.5	244	+ 16.7	68 14 24.4	− 2.5

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
15	− 46 11.1	+ 14 50.3
43	− 36 15.7	+ 14 59.5

DATE.	Number.		OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
						I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.															m. s.	s.	s.	s.	h. m. s.	s.
July 11	1		Polaris, S. P. . .	T.	.	. .	. .	0.0	36.0	12.0	50.0	23.0	. .	. .	11 11.88	+ 16.95	. .	−21.42	1 11 7.41	+ 2.03
	2	ζ	Virginis . . .	T.	.	10.5	12.1	16.1	18.2	20.3	22.2	24.2	28.3	29.8	28 20.19	+ 0.47	−21.36	−21.43	13 27 59.23	− 0.07
	3	α	Herculis . . .	T.	3	48.5	51.1	52.7	59.0	1.1	3.1	9.5	11.0	13.7	9 1.08	+ 0.37	−21.57	−21.55	17 8 39.90	+ 0.02
	4	b	Ophiuchi . . .	T.	3	28.8	31.6	33.4	40.0	42.2	44.5	51.0	52.7	55.6	18 42.20	+ 0.65	−21.57	−21.55	17 18 21.30	+ 0.02
	5	α	Ophiuchi, (R.) .	T.	3	59.6	2.2	3.7	10.0	12.1	14.3	20.3	22.0	24.6	29 12.09	+ 0.15	. .	−21.56	17 29 50.68	+ 0.01
	6	ω	Draconis . . .	T.	3	34.9	41.7	46.4	3.6	9.0	14.6	31.4	35.7	42.9	38 8.91	− 0.56	. .	−21.57	17 37 46.78	+ 0.02
	7	ζ	Draconis, (R.) .	T.	3	37.6	41.7	44.1	54.0	57.1	0.4	10.3	12.7	16.8	53 57.19	− 0.45	. .	−21.58	17 53 35.16	+ 0.03
	8	η	Serpentis . . .	T.	.	40.0	42.6	44.2	50.3	52.4	54.4	0.4	1.9	4.5	14 52.30	+ 0.49	−21.64	−21.59	18 14 31.20	+ 0.04
	9	ι	Aquilæ . . .	T.	.	12.6	15.2	16.7	22.8	25.1	27.1	33.2	34.8	37.2	28 24.97	+ 0.53	−21.59	−21.59	18 28 4.00	+ 0.13
	10	ζ	Pegasi	T.	.	36.9	39.5	41.1	47.4	49.7	51.8	57.9	59.5	2.2	6 49.56	+ 0.37	−21.84	−21.78	0 6 28.15	+ 0.04
	11	β	Ceti	T.	3	7.2	9.9	11.5	18.0	20.2	22.4	28.7	30.4	33.1	37 20.16	+ 0.61	−21.90	−21.79	0 36 58.98	+ 0.14
	12		Moon II . . .	T.	3	1.0	3.7	5.3	11.4	13.6	15.6	21.8	23.3	26.1	57 13.53	+ 0.47	. .	−21.81	0 56 52.19	−62.65
	13		Polaris	T.	.	. .	. .	58.0	21.0	47.0	9.0	31.0	. .	. .	11 45.52	−16.00	. .	−21.81	1 11 5.83	+ 1.88
	14	η	Piscium . . .	T.	.	35.4	38.0	39.6	46.0	48.2	50.2	56.5	58.2	0.8	24 48.10	+ 0.37	−21.87	−21.82	1 24 26.65	+ 0.10
12	15		Polaris	T.	.	. .	. .	1.0	26.0	50.0	11.0	37.0	. .	. .	11 49.32	−17.00	. .	−22.61	1 11 9.71	+ 2.94
	16	θ	Ceti	T.	.	. .	. .	44.5	46.5	48.7	50.7	52.7	. .	. .	17 48.62	+ 0.59	−22.65	−22.62	1 17 26.59	+ 0.03
	17	η	Piscium . . .	T.	.	36.1	38.8	40.2	46.8	48.8	50.9	57.2	58.8	1.5	. . .	+ 0.41	−22.59	−22.62	1 24 26.60	+ 0.02
	18		Moon II, N. . .	N.	3.2	11.3	14.0	15.5	21.7	23.8	25.9	32.2	33.8	36.3	56 23.83	+ 0.47	. .	−22.56	1 46 1.74	−63.94
	19	γ	Tauri	N.	4	29.5	31.1	35.5	37.4	39.5	41.7	43.8	48.1	49.7	12 39.59	+ 0.39	−22.59	−22.63	4 12 17.35	− 0.02
	20	ε	Tauri	N.	3	4.3	7.0	8.6	15.0	17.2	19.4	26.0	27.5	30.2	21 17.24	+ 0.37	−22.61	−22.64	4 20 54.97	− 0.03
13	21		Sun I, N. . . .	N.	2	52.2	59.0	0.7	7.4	9.6	11.8	18.5	20.3	22.7	32 9.58	+ 0.34	. .	−22.73	7 31 47.19	. .
	22		Sun II, S. . . .	N.	2	12.4	15.1	16.9	23.3	25.5	27.6	34.4	36.0	38.7	34 25.54	− 0.34	. .	−22.73	7 34 3.15	. .
	23		Polaris, S. P. . .	N.	3	. .	. .	1.0	38.0	13.0	50.0	27.0	. .	. .	11 13.50	+18.02	. .	−22.90	1 11 8.62	+ 1.37
	24		Saturn I, S. . .	N.	3	33.1	35.6	37.3	. .	. .	. .	54.5	56.5	58.8	50 45.88	+ 0.66	. .	−22.96	15 50 23.58	. .
	25		Saturn II, N. . .	N.	3	. .	. .	42.9	45.0	47.2	49.3	51.5	. .	. .	50 47.18	+ 0.66	. .	−22.96	15 50 24.88	. .
	26	ζ	Ophiuchi . . .	N.	4	5.8	8.4	9.9	16.1	18.1	20.3	36.5	28.0	30.6	30 18.19	+ 0.60	−23.03	−23.00	16 29 55.79	− 0.02
	27	α	Camelopard., S. P.	N.	4	48.8	42.2	38.4	23.4	18.3	13.3	58.1	54.5	48.1	41 18.34	+ 1.25	. .	−23.00	16 41 56.59	− 0.06
	28	α	Ophiuchi . . .	N.	2.3	0.8	3.4	4.9	11.1	13.3	15.4	21.7	23.2	25.8	29 13.29	+ 0.41	−23.04	−23.03	17 28 50.67	+ 0.01
	29		Moon II, N. . .	E.	.	41.4	44.0	45.7	52.0	54.1	56.2	2.6	4.1	6.8	37 54.10	+ 0.36	. .	−23.18	2 37 31.28	−65.64
	30	β	Ursæ Min., S. P. .	E.	.	. .	. .	44.6	36.8	28.8	21.8	13.7	. .	. .	51 29.14	+ 1.63	. .	−23.18	14 51 7.60	+ 0.11
	31	α	Ceti	E.	.	34.1	36.7	38.2	44.4	46.5	48.4	54.6	56.1	58.6	55 46.40	+ 0.39	−23.25	−23.19	2 55 23.60	+ 0.05
14	32		Sun I, N. . . .	E.	.	0.1	3.0	4.7	11.3	13.5	15.7	22.2	23.9	26.9	35 13.48	+ 0.28	. .	−23.35	7 34 50.41	. .
	33		Sun II, S. . . .	E.	.	16.3	19.2	20.8	27.2	29.6	31.7	38.3	39.9	42.2	37 29.48	+ 0.28	. .	−23.35	7 37 6.41	. .
	34	α	Hydræ	E.	.	. .	. .	. .	. .	53.7	56.9	58.0	59.1	0.1	21 29.15	+ 0.46	−23.60	−23.42	9 21 6.19	+ 0.15
	35	γ¹	Leonis	E.	.	51.7	54.5	56.0	2.7	4.8	7.1	13.5	15.2	18.0	13 4.83	+ 0.28	−23.63	−23.44	10 12 41.67	+ 0.21
	36	β¹	Scorpii	E.	.	58.1	1.0	2.6	9.1	11.2	13.3	19.7	21.4	24.1	58 11.17	+ 0.54	−23.56	−23.64	15 57 48.07	− 0.02
	37	δ	Ophiuchi . . .	E.	.	38.8	41.4	42.8	48.9	51.0	53.0	59.1	0.7	3.2	7 50.99	+ 0.43	−23.57	−23.65	16 7 27.77	− 0.06
	38	τ	Herculis . . .	E.	.	54.1	57.7	59.8	8.7	11.5	14.5	23.7	25.8	29.6	16 11.71	+ 0.05	. .	−23.66	16 15 48.10	+ 0.04
	39	α	Scorpii	E.	.	30.9	33.8	35.4	42.3	44.4	46.6	53.6	55.4	58.1	21 44.50	+ 0.58	−23.49	−23.66	16 21 21.42	− 0.15
	40	15	Draconis . . .	E.	.	7.1	14.2	18.7	35.5	41.0	46.8	3.6	8.2	15.1	28 41.15	− 0.47	. .	−23.66	16 28 17.00	− 0.33
	41	κ	Ophiuchi . . .	E.	.	38.3	40.9	42.4	48.6	50.7	52.8	58.8	0.4	3.1	51 50.67	+ 0.36	−23.69	−23.67	16 51 27.36	+ 0.05
	42	d	Herculis . . .	E.	.	54.6	57.9	59.6	6.8	9.4	11.9	19.4	21.1	24.3	57 9.45	+ 0.19	. .	−23.68	16 56 45.96	+ 0.10
	43	ε	Ursæ Minoris .	E.	.	. .	. .	36.4	49.9	6.5	21.6	36.1	. .	. .	0 6.17	− 2.79	. .	−23.68	16 59 39.70	− 0.06
	44	γ	Draconis . . .	E.	.	38.1	43.1	45.6	55.1	58.7	1.8	11.7	14.1	18.2	53 58.50	− 0.01	. .	−23.71	17 53 34.78	− 0.32
	45	γ²	Sagittarii . . .	E.	.	31.5	34.5	36.2	43.3	45.6	48.1	55.1	57.0	59.9	57 45.69	+ 0.61	−23.71	−23.71	17 59 22.69	+ 0.07
	46	μ	Sagittarii . . .	E.	.	4.8	7.6	9.2	15.5	17.9	20.2	26.6	28.3	31.0	6 17.90	+ 0.54	−23.63	−23.72	18 5 54.72	− 0.11
	47	δ	Ursæ Minoris . .	E.	.	. .	. .	30.0	4.0	38.0	10.0	45.5	. .	. .	15 37.62	− 5.18	. .	−23.72	18 15 8.72	− 1.78
	48		Polaris	T.	.	. .	. .	. .	. .	. .	. .	39.0	27.0	14.0	11 52.57	−15.62	. .	−24.18	1 11 12.77	+ 4.05
	49		Moon II, N. . .	T.	3.2	20.8	23.4	25.1	31.5	33.7	35.8	42.3	43.9	46.7	32 33.69	+ 0.42	. .	−24.28	3 32 9.83	−67.86
	50	η	Tauri	T.	3	49.8	52.5	54.2	0.9	3.1	5.2	12.0	13.7	16.4	40 3.09	+ 0.33	−24.29	−24.28	3 39 39.14	+ 0.02

29. Bisections at C₁, C₃, and C₅.
30. Bisections at set C.
34. Set E in R. A.
37. Wire A used.
40. Bisections at sets B and D.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	307 28	4.6	6.3	0.0	0.9	27	686	701	705	742	586	10.3	307 30 54.4	233	− 1 10.3	358 36 5.3	+ 0.7
2	38 44	8.4	8.5	0.6	1.7	22	. .	784	. .	721	. .	10.3	38 48 8.2	245	+ 43.5	89 55 12.9	+ 0.3
3	24 18	9.3	9.3	2.6	3.5	29	. .	329	. .	231	. .	10.4	24 20 27.1	338	+ 25.1	75 26 13.4	+ 0.8
4	62 52	4.8	7.4	0.5	1.3	28	. .	073	. .	930	. .	10.4	62 52 49.1	342	+ 1 47.6	113 58 57.9	+ 0.1
5	153 44	4.3	5.4	0.0	28.8	29	450	319	. .	290	220	10.4	153 46 30.4	. .	− 27.3	87 21 18.1	+ 1.1
6	330 2	5.1	5.1	1.4	1.6	28	. .	280	160	068	. .	10.4	330 4 47.5	. .	− 31.9	21 10 36.8	− 1.2
7	192 34	9 29.6	3.1	27.4	23.5	28	603	722	. .	490	380	10.4	192 36 45.4	. .	+ 12.4	38 29 23.4	− 1.8
8	41 44	7.5	8.5	2.3	2.5	21	. .	384	. .	292	. .	10.4	41 48 29.4	349	+ 49.3	92 55 39.9	+ 0.3
9	47 10	7.4	8.8	1.8	2.6	29	. .	270	. .	186	. .	10.4	47 12 28.8	350	+ 59.8	96 19 49.8	− 1.4
10	24 22	9 28.0	28.4	21.5	20.4	23	344	. .	. .	. .	202	10.2	24 26 10.5	386	+ 25.4	75 32 57.1	+ 0.7
11	57 32	1.4	2.7	25.5	25.6	29	. .	154	. .	058	. .	10.2	57 36 36.8	382	+ 1 27.8	108 44 25.8	− 1.9
12	37 34	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	10.2	. . . .	373			
13	310 16	5.4	6.6	0.6	1.7	28	658	632	636	636	590	. .	310 18 39.6	. .	− 1 5.7	1 23 55.1	− 0.3
14	24 10	5.9	3.8	29.0	28.8	26	. .	172	. .	073	. .	10.2	24 13 19.5	372	+ 25.1	75 20 5.8	− 1.3
15	310 16	6.1	6.5	2.0	1.5	28	. .	568	594	633	. .	9.8	310 18 39.0	. .	− 1 5.7	1 23 54.5	− 0.9
16	47 42	10 0.6	1.8	24.3	24.3	30	. .	050	. .	050	. .	9.8	47 44 23.0	372	+ 1 1.3	98 51 45.5	+ 0.2
17	24 10	2.7	2.6	26.1	25.5	26	. .	312	. .	138	. .	9.8	24 13 20.2	372	+ 25.1	75 20 6.8	− 0.4
18	33 4	10 8.6	8.5	0.9	0.7	26	540	679	878	105	215	9.5	33 7 4.4	361	+ 36.3	84 14 1.9	
19	23 32	8.3	7.6	0.9	0.6	27	622	576	. .	482	445	9.5	23 34 54.9	303	+ 23.9	74 41 40.1	− 2.3
20	19 56	7.2	7.3	0.6	0.5	22	. .	. .	. .	086	. .	9.5	20 0 17.7	. .	+ 20.0	71 6 58.9	− 1.6
21	16 50	8.0	8.5	1.8	29.7	25	585	502	. .	. .	. .	9.3	16 53 26.2	. .	+ 16.5	68 0 3.9	− 2.5
22	17 22	9.2	10.6	3.4	1.2	27	. .	. .	. .	340	316	9.3	17 24 54.9	250	+ 17.0	68 31 33.1	− 2.6
23	307 28	5.6	6.1	0.1	1.1	27	739	708	715	729	660	9.3	307 30 52.8	215	− 1 10.0	358 36 4.0	− 0.7
24	56 54	6.9	7.1	29.5	28.5	28	222	. .	. .	. .	081	9.3	56 56 46.2	. .	+ 1 23.7	108 4 31.1	− 0.8
25	56 54	6.9	7.1	29.5	28.5	29	. .	355	. .	194	. .	9.3	56 56 29.1	282	+ 1 23.7	108 4 14.0	− 0.8
26	49 6	8.2	8.3	1.3	29.6	22	052	080	. .	965	932	9.3	49 10 18.8	291	+ 1 3.3	100 17 43.3	− 1.1
27	285 0	6.5	7.7	3.3	1.6	24	975	062	. .	902	885	9.3	285 3 32.3	. .	− 3 20.2	336 6 33.3	− 0.8
28	26 10	13.2	12.9	5.4	5.0	25	125	066	. .	958	991	9.3	26 13 28.1	311	+ 27.1	77 20 16.4	− 0.3
29	28 58	5.5	5.5	27.8	26.6	22	. .	450	530	580	. .	9.5	29 2 14.4	. .	+ 30.8	80 9 6.4	
30	293 34	4.4	4.5	28.0	29.1	24	530	470	535	565	580	9.5	293 37 43.4	. .	− 2 5.9	344 46 58.7	− 1.0
31	35 16	6.7	7.4	1.3	28.5	28	375	305	. .	180	160	9.5	35 18 44.5	350	+ 39.3	86 25 45.0	− 1.6
32	17 0	11.6	9.8	1.4	3.7	28	672	700	. .	. .	. .	9.5	17 2 36.2	. .	+ 16.5	68 9 13.9	− 2.5
33	17 32	11.7	10.5	2.4	4.1	30	. .	. .	. .	312	400	9.5	17 34 7.7	207	+ 17.0	68 40 45.9	− 2.6
34	46 54	7.0	6.4	28.2	28.7	22	. .	. .	. .	. .	860	9.5	46 58 6.6	. .	+ 57.0	98 5 24.8	− 0.3
35	18 20	9.7	9.2	1.2	1.2	27	650	603	. .	480	420	9.5	18 22 53.9	. .	+ 17.7	69 29 32.8	− 1.2
36	58 14	5.0	7.0	28.8	29.0	20	732	832	. .	775	685	9.9	58 18 40.4	. .	+ 1 27.8	109 26 29.4	+ 0.7
37	42 12	7.7	8.8	2.3	2.0	41	. .	. .	. .	710	735	9.9	42 13 49.9	. .	+ 49.0	93 21 0.1	− 2.0
38	352 12	11.3	10.0	3.5	4.5	24	290	245	. .	040	010	9.9	352 15 44.5	. .	− 7.6	43 21 58.1	− 0.6
39	64 56	5.0	5.7	0.2	0.0	23	920	810	. .	700	585	9.9	64 59 54.3	. .	+ 1 56.2	116 8 11.7	+ 2.9
40	329 48	10 8.5	8.5	2.4	3.4	28	. .	550	460	540	. .	9.9	329 50 38.8	. .	− 31.7	20 56 28.3	+ 0.4
41	29 14	5.0	5.7	29.0	28.5	23	. .	340	. .	260	. .	9.9	29 18 2.2	. .	+ 30.8	80 24 54.0	+ 1.7
42	5 4	7.0	5.5	0.0	0.2	24	. .	790	. .	710	. .	9.9	5 7 39.1	. .	+ 4.9	56 14 5.2	+ 1.0
43	316 36	10 10.3	10.7	5.3	5.8	26	098	228	120	210	190	9.9	316 39 12.4	. .	− 51.6	7 45 42.0	− 0.1
44	347 20	6.7	7.8	1.5	1.3	26	. .	560	. .	290	. .	9.9	347 23 12.5	. .	− 12.3	38 29 21.4	− 3.0
45	69 12	4.7	5.7	28.8	29.5	21	420	620	. .	515	460	9.9	69 16 29.2	. .	+ 2 23.5	120 25 13.9	− 0.8
46	59 54	5.8	6.2	28.8	29.0	26	. .	070	. .	770	. .	9.9	59 57 21.6	. .	+ 1 34.7	111 5 17.5	+ 0.6
47	312 14	1.5	1.2	26.0	25.8	23	335	290	340	320	350	9.9	312 18 5.3	. .	− 1 0.4	3 23 26.1	− 1.4
48																	
49	25 18	8.6	10.0	1.8	2.4	27	760	809	878	943	100	9.7	25 20 48.1	271	+ 25.8	76 27 35.1	
50	15 8	8.0	8.7	0.9	1.5	14	. .	031	. .	888	. .	9.7	15 11 49.3	. .	+ 14.8	66 18 25.3	− 0.7

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
18	− 30 33.0	+ 15 21.6
29	− 27 32.4	+ 15 36.0
49	− 24 40.5	+ 15 51.7

DATE.	Number.		OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
1868.															m. s.	s.	s.	s.	h. m. s.	s.
July 14	1	ζ	Persei	T.	3	0.7	3.7	5.5	12.7	15.1	17.4	24.6	26.3	29.4	46 15.04	+ 0.25	−24.26	−24.29	3 45 51.00	− 0.03
	2	γ	Eridani	T.	.	3.5	6.2	7.6	14.0	16.1	18.2	24.5	26.1	28.7	52 16.10	+ 0.63	−24.28	−24.29	3 51 52.44	+ 0.02
	3	γ	Tauri	T.	3	28.6	31.3	32.9	39.2	41.3	43.4	49.8	51.4	54.1	12 41.33	+ 0.41	−24.30	−24.30	4 12 17.44	+ 0.02
	4	ε	Tauri	T.	3	6.1	8.7	10.3	16.8	18.9	21.1	27.6	29.3	32.0	21 18.95	+ 0.38	−24.31	−24.30	4 20 55.08	+ 0.03
15	5		Sun I, N.	T.	3	4.1	6.8	8.6	15.2	17.5	19.7	26.1	27.8	30.5	40 17.37	+ 0.37	. .	−24.44	7 39 53.30	. .
	6		Sun II, S.	T.	3	20.0	22.7	24.5	31.0	33.2	35.4	41.8	43.5	46.3	42 33.16	+ 0.37	. .	−24.44	7 42 9.00	. .
	7	γ	Leonis	T.	.	. .	. .	. .	5.8	7.9	10.0	14.3	15.9	18.5	13 5.64	+ 0.38	−24.59	−24.54	10 12 41.48	+ 0.02
	8	α	Herculis	T.	.	50.7	53.3	54.9	1.1	3.3	5.4	11.7	13.2	15.8	9 3.27	+ 0.42	−23.83	−23.82	17 8 39.87	+ 0.01
	9	b	Ophiuchi	T.	.	30.9	33.8	35.2	42.0	44.3	46.6	53.4	55.0	57.9	18 44.34	+ 0.72	−23.79	−23.83	17 18 21.23	− 0.04
	10	β	Draconis	T.	.	33.3	37.5	39.9	49.9	53.5	56.5	6.5	9.2	13.1	27 53.27	− 0.01	. .	−23.83	7 27 29.43	+ 0.13
	11	ω	Draconis	T.	.	37.3	44.4	48.6	5.5	11.5	16.9	33.8	38.0	45.2	38 11.25	− 0.54	. .	−23.84	17 37 46.42	− 0.21
	12	ψ	Draconis, (R.)	T.	.	. .	. .	33.1	39.7	46.5	53.1	59.8	. .	. .	44 46.44	− 1.47	. .	−23.84	17 44 21.13	+ 0.24
	13	γ	Draconis, (R.)	T.	.	39.7	43.9	46.2	56.2	59.5	2.7	12.5	14.9	18.8	53 59.38	− 0.39	. .	−23.85	17 53 35.14	+ 0.05
	14	μ	Sagittarii	T.	.	4.7	7.6	9.2	15.8	18.0	20.2	26.8	28.4	31.1	6 17.98	+ 0.69	−23.85	−23.86	18 6 54.81	− 0.03
	15	δ	Ursæ Minoris	T.	.	. .	. .	. .	43.0	14.0	50.0	0.0	25.0	8.0	15 41.48	− 6.31	. .	−23.87	18 15 11.30	+ 1.01
	16		Moon II	N.	2	40.8	43.6	45.1	51.8	53.9	56.0	2.6	4.3	7.0	30 53.90	+ 0.48	. .	−25.35	4 30 29.03	−70.14
	17	β	Orionis	N.	2	24.1	26.6	28.1	34.2	36.2	38.3	44.5	46.1	48.7	8 36.32	+ 0.71	−25.38	−25.37	5 8 11.66	+ 0.02
	18	β	Tauri	N.	3	8.1	11.1	12.7	19.8	22.0	24.3	31.4	33.0	36.0	18 22.04	+ 0.35	−25.29	−25.38	5 17 57.01	− 0.10
16	19		Sun I, S.	N.	1	7.3	10.0	11.6	18.3	20.3	22.6	29.2	30.8	33.4	44 20.39	+ 0.43	. .	−25.47	7 43 55.35	. .
	20		Sun II, N.	N.	1	22.9	25.7	27.4	33.9	36.0	38.2	44.9	46.6	49.3	46 36.16	+ 0.43	. .	−25.47	7 46 11.06	. .
	21		Polaris, S. P.	N.	4	35.0	51.0	48.5	. .	. .	. .	40.0	37.5	53.5	11 14.53	+21.60	. .	−25.69	1 11 10.44	+ 0.29
	22		Polaris, S. P.	F.	.	. .	. .	2.0	39.0	15.0	51.0	. .	. .	. .	11 14.78	+21.60	. .	−25.69	1 11 10.69	+ 0.54
	23	ε	Serpentis	N.	.	28.9	31.5	33.0	39.2	41.2	43.2	49.4	50.9	53.4	44 41.19	+ 0.59	−25.69	−25.79	15 44 15.99	− 0.11
	24		Saturn I, S.	N.	2	14.1	16.9	18.5	. .	. .	. .	35.5	37.3	40.0	50 27.05	+ 0.81	. .	−25.79	15 50 2.07	. .
	25		Saturn II, N.	N.	2	. .	. .	24.0	26.1	28.2	30.4	32.6	. .	. .	50 28.26	+ 0.81	. .	−25.79	15 50 3.25	. .
	26	β	Scorpii	N.	2	0.0	2.9	4.0	11.0	13.2	15.4	21.8	23.5	26.0	55 13.16	+ 0.82	−25.85	−25.80	15 57 48.18	+ 0.10
	27	η	Draconis	N.	4	14.5	19.8	23.1	36.1	40.5	44.8	57.7	1.1	6.4	22 40.45	− 0.34	. .	−25.82	16 22 14.29	− 0.06
	28	15	Draconis	N.	4	9.3	16.6	20.7	32.2	43.8	55.2	6.6	11.0	17.8	28 43.69	− 0.71	. .	−25.82	16 28 17.16	− 0.08
	29	η	Herculis	N.	4	34.1	37.3	39.3	47.2	49.9	52.4	0.3	2.3	5.6	38 49.82	+ 0.21	. .	−25.83	16 38 24.20	+ 0.05
	30	κ	Ophiuchi, (R.)	N.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .
	31	d	Herculis	N.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .
	32	α	Herculis, (R.)	N.	3	52.9	55.5	57.2	3.4	5.6	7.8	14.0	15.5	18.3	9 5.58	+ 0.20	. .	−25.85	17 8 39.93	+ 0.07
	33	b	Ophiuchi	N.	3	33.0	35.8	37.4	44.1	46.4	48.4	55.3	56.9	59.8	18 46.34	+ 0.87	−25.94	−25.85	17 18 21.36	+ 0.09
	34	α	Ophiuchi, (R.)	N.	3	3.8	6.3	7.9	14.1	16.4	18.4	24.7	26.2	28.8	29 16.29	+ 0.22	. .	−25.86	17 28 50.65	0.00
	35	ο	Draconis	N.	.	39.2	46.5	50.7	7.6	13.5	18.6	36.0	40.2	47.0	38 13.26	− 0.70	. .	−25.87	17 37 46.69	+ 0.08
	36	μ	Herculis	N.	3	31,4	34.3	36.1	43.0	45.4	47.6	54.5	56.2	59.2	41 45.30	+ 0.36	−25.87	−25.87	17 41 19.79	0.00
	37	γ	Draconis	N.	3	41.1	45.4	47.7	57.7	1.1	4.1	14.1	16.5	20.5	54 0.91	− 0.01	. .	−25.88	17 53 35.08	− 0.04
	38	μ	Sagittarii	N.	3	6.8	9.5	11.1	17.7	19.9	22.0	28.6	30.3	33.1	6 19.89	+ 0.84	−25.91	−25.89	18 5 54.84	0.00
	39	δ	Ursæ Minoris	N.	2	. .	. .	33.7	9.7	43.0	18.0	53.3	. .	. .	15 43.66	− 7.99	. .	−25.92	18 51 9.75	− 0.30
17	40		Sun I, N.	E.	.	10.0	12.6	14.2	20.5	22.8	25.3	31.7	33.5	36.5	48 23.01	+ 0.37	. .	−26.08	7 47 57.30	. .
	41		Sun II, S.	E.	.	25.6	28.1	30.1	36.6	38.7	40.8	47.2	49.1	51.9	50 38.68	+ 0.37	. .	−26.08	7 50 12.97	. .
	42	ε	Serpentis	E.	.	29.1	31.6	33.1	39.2	41.3	43.2	49.4	51.0	53.6	44 41.28	+ 0.47	−25.67	−25.40	15 44 16.35	+ 0.26
	43		Saturn, Ring I, S.	E.	.	7.4	10.1	11.9	. .	. .	. .	28.9	30.5	33.2	50 20.33	+ 0.59	. .	−25.40	15 49 55.52	. .
	44		Saturn, Ring II, N.	E.	.	. .	. .	17.5	19.6	21.8	23.9	26.0	. .	. .	50 21.76	+ 0.59	. .	−25.40	15 49 56.95	. .
	45	δ	Ophiuchi	E.	.	40.2	43.0	44.7	50.6	52.9	54.7	0.9	2.4	4.9	7 52.70	+ 0.51	−25.38	−25.41	16 7 27.80	− 0.01
	46	τ	Herculis	E.	.	55.7	59.4	1.6	10.5	13.5	16.5	25.6	27.7	31.4	16 13.54	+ 0.15	. .	−25.42	16 15 48.27	+ 0.20
	47	α	Scorpii	E.	.	32.7	35.5	37.3	44.0	46.1	48.3	55.3	57.1	59.9	21 46.24	+ 0.65	−25.31	−25.42	16 21 21.47	− 0.00
	48	ζ	Ophiuchi	E.	.	8.0	10.5	12.4	18.3	20.5	22.7	28.8	30.4	33.1	30 20.52	+ 0.55	−25.34	−25.43	16 29 55.64	− 0.14
	49	η	Herculis	E.	.	33.6	37.2	39.1	46.9	49.4	52.2	0.1	2.1	5.3	38 49.54	+ 0.24	. .	−25.44	16 38 24.34	+ 0.20
	50	κ	Ophiuchi	E.	.	39.8	42.5	44.0	50.2	52.3	54.3	0.5	2.2	4.6	51 52.27	+ 0.44	−25.39	−25.44	16 51 27.27	− 0.02

8.15. Counting clock one second wrong.
12.21.28. Bisections at sets B and D.
16. Counting clock probably two seconds slow.
35. Bisections at sets B and D.
42.43.44. Wire B used.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	7 20	6.6	7.7	0.0	29.5	22	. .	089	. .	000	. .	9.7	7 24 19.9	. .	+ 7.1	58 30 48.2	− 0.2
2	52 42	6.6	7.9	29.0	0.3	25	. .	282	. .	146	. .	9.7	52 45 31.2	260	+ 1 11.4	103 53 3.8	− 2.2
3	23 32	9.1	9.1	1.0	1.4	27	. .	415	. .	286	. .	9.7	23 34 57.0	. .	+ 23.7	74 41 41.9	− 0.3
4	19 56	9.9	10.5	2.9	2.7	21	. .	840	. .	762	. .	9.7	20 0 20.5	249	+ 19.7	71 7 1.4	+ 1.0
5	17 8	8.8	9.0	1.1	1.0	22	650	650	. .	. .	. .	9.6	17 12 10.3	. .	+ 16.5	68 18 48.0	− 2.5
6	17 40	12.1	11.6	3.3	3.3	24	. .	. .	. .	193	208	9.6	17 43 41.5	180	+ 17.1	68 50 19.8	− 2.6
7																	
8	24 18	12.5	12.9	4.6	3.5	29	. .	140	. .	033	. .	9.6	24 20 27.1	243	+ 24.6	75 27 12.9	+ 0.9
9	62 52	5.3	7.8	29.1	28.0	27	. .	923	. .	741	. .	9.6	62 54 51.9	. .	+ 1 45.4	114 2 58.5	+ 0.6
10	346 26	10.6	11.7	3.5	2.5	24	. .	810	. .	750	. .	9.6	346 29 34.6	. .	− 13.0	37 35 42.8	+ 0.2
11	330 2	8.0	9.0	1.8	0.1	28	. .	270	. .	130	. .	9.6	330 4 45.1	. .	− 31.2	21 10 35.1	− 1.9
12	213 14	4.0	8.0	0.5	27.4	20	. .	023	274	110	. .	9.6	213 18 50.6	. .	+ 35.6	17 46 55.0	− 1.8
13	192 34	3.6	7.9	0.7	26.1	28	310	143	. .	150	068	9.6	192 36 46.7	. .	+ 12.1	38 29 22.4	− 1.7
14	59 54	6.5	8.8	0.0	29.0	25	. .	798	. .	750	. .	9.6	59 57 22.4	247	+ 1 35.5	111 5 19.1	+ 2.1
15																	
16																	
17	47 10	9.7	10.7	1.6	1.2	22	. .	. .	974	. .	840	9.3	47 14 3.2	200	+ 57.9	98 21 22.3	− 2.5
18	10 20	9.6	10.1	2.1	1.8	23	120	032	. .	881	898	9.3	10 24 2.8	. .	+ 10.0	61 30 34.0	− 1.2
19	17 50	9.5	9.3	1.5	1.5	25	044	952	. .	. .	. .	9.3	17 53 33.6	. .	+ 17.3	69 0 12.1	− 2.6
20	17 18	13.2	12.5	4.5	4.2	22	. .	. .	. .	630	598	9.3	17 22 4.4	. .	+ 16.8	68 28 42.4	− 2.6
21	307 28	7.1	9.3	1.1	1.2	27	500	503	617	. .	. .	9.3	307 30 52.1	184	− 1 9.3	358 36 4.0	− 1.0
22																	
23	33 58	9.5	9.0	0.6	28.9	29	962	930	. .	815	745	9.3	34 0 18.7	250	+ 36.6	85 7 16.5	+ 1.3
24	56 52	9.5	9.7	1.5	0.3	21	652	. .	. .	. .	665	9.3	56 56 23.2	. .	+ 1 23.1	108 4 7.5	− 0.8
25	56 52	9.5	9.7	1.5	0.3	22	. .	848	. .	760	. .	9.3	56 56 5.8	. .	+ 1 23.1	108 3 50.1	− 0.8
26	58 14	9.9	10.7	2.0	0.5	20	578	578	. .	489	422	9.3	58 18 40.1	. .	+ 1 27.6	109 26 28.9	+ 0.2
27	37 2	7.2	7.5	1.2	28.1	27	. .	735	. .	637	. .	9.3	337 4 53.6	256	− 23.0	28 10 51.8	+ 0.3
28	329 48	7.4	7.4	1.2	28.9	28	798	751	. .	670	725	9.3	329 50 36.8	. .	− 31.5	20 56 26.5	− 1.0
29	359 38	11.2	10.2	3.2	1.5	27	570	525	. .	417	400	9.3	359 40 53.6	. .	− 0.3	50 47 14.5	+ 0.8
30	150 40	8.0	8.6	0.9	27.0	31	188	. .	100	060	031	9.3	150 42 0.5	. .	− 30.5	80 24 51.2	− 0.9
31	5 6	10.1	10.1	2.6	0.6	32	616	520	. .	422	400	9.3	5 7 37.4	. .	− 4.9	66 14 3.5	− 0.3
32	155 36	7.5	7.7	0.3	27.0	25	110	049	. .	990	865	9.3	155 39 34.5	260	− 24.6	75 27 11.5	− 0.3
33	62 52	9.7	10.9	1.9	0.9	27	752	715	. .	612	581	9.3	64 54 50.7	. .	+ 1 45.9	114 2 57.8	− 0.1
34	153 44	10.0	10.7	3.1	29.9	29	015	012	. .	914	829	9.3	153 46 31.3	. .	− 26.8	77 20 16.7	+ 0.5
35	330 2	8.5	8.6	2.3	0.1	28	206	261	. .	198	241	9.3	330 4 43.5	. .	− 31.3	21 10 33.4	− 3.3
36	11 2	9.4	9.7	3.0	0.3	26	. .	250	179	075	. .	9.3	11 5 14.3	270	+ 10.6	62 11 46.1	− 0.8
37	347 20	11.1	10.7	3.8	2.4	26	245	185	. .	039	085	9.3	347 23 13.9	. .	− 12.2	38 29 22.9	− 0.9
38	59 54	8.1	9.0	0.3	29.1	25	846	755	. .	962	960	9.3	59 57 19.8	. .	+ 1 34.1	111 5 15.1	− 1.9
39	312 14	9.4	9.6	3.3	1.6	22	858	868	862	858	860	9.3	312 18 4.4	292	− 1 0.1	3 23 25.5	− 1.3
40	17 28	11.0	10.1	3.1	3.5	21	950	010	. .	. .	. .	9.6	17 32 18.6	. .	+ 17.1	68 38 56.9	− 2.6
41	18 0	11.0	9.5	2.5	4.3	23	. .	. .	. .	355	298	9.6	18 3 55.6	251	+ 17.7	69 10 34.5	− 2.6
42	33 58	8.7	7.8	1.0	28.8	20	. .	082	. .	072	. .	10.1	34 0 20.4	. .	+ 37.0	85 7 18.6	+ 3.5
43	56 54	3.8	5.2	27.2	23.7	20	. .	640	. .	. .	. .	10.1	56 56 17.2	. .	+ 1 24.0	108 4 2.4	− 0.8
44	56 54	3.8	5.2	27.2	23.7	21	. .	. .	. .	795	. .	10.1	56 55 56.7	. .	+ 1 23.9	108 3 41.8	− 0.8
45	42 12	7.2	8.3	1.0	29.2	31	. .	. .	. .	765	640	10.1	42 13 50.8	. .	+ 49.7	93 21 1.7	− 0.1
46	352 12	7.2	7.0	2.0	29.4	24	. .	050	. .	000	. .	10.1	352 15 49.7	290	− 7.4	43 22 3.5	+ 5.4
47	64 56	5.3	6.2	27.8	27.8	23	995	940	. .	955	892	10.1	64 59 52.5	. .	+ 1 56.8	116 8 10.5	+ 1.6
48	49 6	5.3	5.2	28.4	25.2	.	. .	. .	235	. .	. .	10.1	49 10 19.6	. .	+ 1 3.4	100 17 44.2	0.0
49	359 38	7.8	7.8	2.0	0.0	19	735	715	. .	815	795	10.1	359 42 54.4	. .	− 0.3	50 49 15.3	+ 1.8
50	29 14	8.5	8.2	0.2	29.5	23	. .	315	. .	225	. .	10.1	29 18 0.8	. .	+ 30.9	80 24 52.9	+ 0.8

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
19	29.920	98.8	90.2

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	′ ″

DATE.	Number.		OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
						I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.															m. s.	s.	s.	s.	h. m. s.	s.
July 17	1	d	Herculis	E.	.	56.5	59.6	1.5	8.6	11.1	13.7	21.1	22.8	26.1	57 11.22	+ 0.27	. .	−25.45	16 56 46.04	+ 0.21
	2	ε	Ursæ Minoris	E.	.	. .	. .	37.6	53.2	7.5	22.3	37.7	. .	. .	0 7.73	− 2.59	. .	−25.45	16 59 39.69	− 0.22
	3	α	Herculis	E.	.	. .	. .	0.7	2.8	4.9	7.1	9.3	. .	. .	9 4.96	+ 0.41	−25.52	−25.46	17 8 39.91	+ 0.06
	4	δ	Ursæ Minoris	E.	.	. .	. .	30.0	6.0	40.0	14.0	49.0	. .	. .	15 39.90	− 4.94	. .	−25.50	18 15 9.46	− 0.36
	5		Polaris	T.	.	. .	. .	10.0	36.0	. .	22.0	45.0	. .	. .	11 58.52	−17.82	. .	−27.10	1 11 13.60	+ 2.09
	6	θ	Ceti	T.	3	40.7	43.4	44.8	51.0	53.2	55.3	1.5	3.1	5.5	17 53.17	+ 0.61	−27.07	−27.10	1 17 26.68	− 0.03
	7	α	Tauri	T.	.	35.3	38.1	39.5	46.0	48.1	50.2	56.8	58.3	1.0	28 48.14	+ 0.41	−27.22	−27.24	4 28 21.31	− 0.02
	8	β	Orionis	T.	.	26.0	28.5	30.2	36.2	38.3	40.4	46.6	48.1	50.7	8 38.33	+ 0.61	−27.24	−27.26	5 8 11.68	− 0.01
18	9		Sun I, N.	T.	.	12.4	15.0	16.8	23.3	25.7	27.7	34.3	35.8	38.6	52 25.51	+ 0.37	. .	−27.37	7 51 58.51	. .
	10		Sun II, S.	T.	.	27.7	30.6	32.2	38.8	41.0	43.2	49.6	51.2	54.2	54 40.94	+ 0.37	. .	−27.37	7 54 13.94	. .
	11		Polaris, S. P.	T.	.	. .	. .	10.0	47.0	. .	59.0	37.0	. .	. .	11 22.92	+18.91	. .	−27.58	1 11 14.25	+ 2.32
	12	α	Virginis	T.	.	30.1	32.8	34.3	40.6	42.6	44.7	50.9	52.4	55.0	18 42.60	+ 0.62	−27.51	−27.59	13 18 15.63	− 0.07
	13	ζ	Virginis	T.	.	14.0	16.5	18.0	24.1	26.3	28.3	34.4	35.8	38.5	28 26.21	+ 0.54	−27.54	−27.60	13 27 59.15	− 0.06
	14	η	Bootis	T.	.	39.1	41.9	43.5	49.9	52.1	54.2	0.7	2.4	5.1	48 52.10	+ 0.38	−27.53	−27.60	13 48 24.88	− 0.10
	15	ε	Ursæ Min., (E. P.)	T.	.	40.0	59.0	11.0	55.8	10.8	26.0	11.7	22.6	41.8	0 10.97	− 3.62	. .	−27.74	16 59 39.61	− 0.17
	16	α	Herculis, (R.)	T.	3	54.7	57.2	58.9	5.3	7.4	9.5	15.8	17.5	20.1	9 7.38	+ 0.16	. .	−27.75	17 8 39.79	− 0.06
	17	b	Ophiuchi	T.	.	34.9	37.8	39.3	46.1	48.3	50.5	57.1	58.8	1.6	18 48.27	+ 0.74	−27.76	−27.75	17 18 21.26	+ 0.01
	18	α	Ophiuchi, (R.)	T.	3	5.7	8.3	9.5	16.1	18.2	20.4	26.6	28.1	30.7	29 18.18	+ 0.18	. .	−27.76	17 28 50.60	− 0.04
	19	ω	Draconis, (R.)	T.	3	41.8	48.7	53.0	10.3	16.1	21.4	38.4	42.5	49.8	38 15.78	− 1.30	. .	−27.76	17 37 46.72	+ 0.18
	20	ψ	Draconis	T.	.	9.4	18.1	23.3	43.2	49.7	56.5	16.4	21.5	30.0	44 49.79	− 0.86	. .	−27.76	17 44 21.17	+ 0.30
	21	γ	Draconis, (R.)	T.	3	43.6	47.7	50.4	0.2	3.2	6.5	16.4	19.0	22.9	54 3.32	− 0.46	. .	−27.77	17 53 35.09	+ 0.04
	22	η	Serpentis	T.	.	46.2	48.7	50.2	56.5	58.5	0.5	6.7	8.3	10.7	14 58.48	+ 0.56	−27.86	−27.78	18 14 31.26	+ 0.09
	23	ι	Aquilæ	T.	.	18.7	21.3	22.9	29.1	31.2	33.3	39.4	40.9	43.6	28 31.16	+ 0.61	−27.84	−27.79	18 28 3.98	+ 0.06
	24	51	Cephei, S. P.	T.	4	. .	. .	9.0	26.0	44.0	2.0	19.0	. .	. .	37 43.82	+ 9.85	. .	−27.80	6 37 25.87	+ 1.35
	25	σ	Sagittarii	T.	.	20.9	23.8	25.6	32.4	34.6	36.9	43.8	45.5	48.3	47 34.64	+ 0.77	−27.85	−27.80	18 47 7.61	+ 0.03
	26		Irene	T.	3	15.2	18.1	19.9	26.8	28.9	31.1	38.1	39.8	43.1	57 29.00	+ 0.78	. .	−27.81	18 57 1.97	. .
	27	δ	Aquilæ	T.	.	8.2	10.8	12.3	18.4	20.4	22.5	28.6	30.1	32.6	19 20.43	+ 0.52	−27.94	−27.82	19 18 53.13	+ 0.13
	28	ι	Draconis	T.	.	33.9	41.5	45.7	3.8	9.7	15.3	33.5	38.3	45.4	49 9.68	− 0.70	. .	−27.84	19 48 41.14	+ 0.33
	29		Hesperia	T.	3	16.8	19.3	20.9	. .	. .	. .	. .	. .	. .	4 29.15	+ 0.61	. .	−27.86	20 4 1.90	. .
	30	α²	Capricorni	T.	.	0.9	3.6	5.2	11.5	13.5	15.6	21.8	23.5	26.0	11 13.51	+ 0.64	−27.89	−27.86	20 10 46.29	+ 0.03
21	31		Sun II, S.	E.	.	. .	. .	10.4	12.4	14.4	16.5	18.7	. .	. .	6 14.48	+ 0.33	. .	. .	. . . .	. .
	32		Polaris	T.	.	14.5	56.5	1.0	49.0	12.0	. .	. .	. .	. .	11 35.08	−16.07	. .	− 0.55	1 11 18.46	+ 3.85
	33	β	Orionis	T.	.	59.3	1.9	3.4	9.6	11.6	13.7	20.0	21.5	24.1	8 11.68	+ 0.51	− 0.40	− 0.47	5 8 11.72	− 0.06
	34	ζ	Tauri	T.	.	43.5	46.4	48.2	55.2	57.5	59.8	6.8	8.5	11.4	17 57.48	+ 0.23	− 0.45	− 0.47	5 17 57.24	− 0.03
	35	δ	Orionis	T.	.	3.5	. .	. .	13.7	15.7	17.8	. .	. .	28.1	25 15.76	+ 0.45	− 0.26	− 0.46	5 25 15.75	− 0.22
	36	ι	Orionis	T.	.	18.6	21.3	. .	29.0	31.0	33.0	. .	40.8	43.6	29 31.00	+ 0.46	− 0.39	− 0.46	5 29 31.00	− 0.06
	37	α	Orionis	T.	.	49.4	51.9	53.4	59.6	1.6	3.8	9.9	11.5	14.2	48 1.70	+ 0.40	− 0.42	− 0.46	5 48 1.64	− 0.04
22	38		Sun I	T.	.	45.2	48.1	49.5	. .	. .	. .	. .	. .	. .	7 58.30	+ 0.30	. .	− 0.41	8 7 58.19	+67.43
	39	α	Ophiuchi	T.	.	38.0	40.6	42.1	48.4	50.5	52.6	58.7	0.4	2.9	28 50.47	+ 0.37	− 0.21	− 0.23	17 28 50.61	− 0.01
	40	ω	Draconis	T.	.	13.2	20.3	24.5	41.2	47.6	53.1	9.9	14.0	21.0	37 47.20	− 0.60	. .	− 0.23	17 37 46.37	− 0.03
	41	ψ	Draconis, (R.)	T.	3	. .	. .	. .	. .	28.8	36.3	49.4	54.4	3.0	44 22.70	− 1.36	. .	− 0.22	17 44 21.12	+ 0.51
	42	γ	Draconis	T.	.	15.6	19.5	22.1	32.1	35.3	38.6	48.2	50.7	55.1	53 35.24	− 0.06	. .	− 0.22	17 53 34.96	− 0.03
	43	μ	Sagittarii	T.	.	41.3	44.1	45.8	52.4	54.5	56.6	3.3	4.8	7.6	5 54.49	+ 0.61	− 0.29	− 0.21	18 5 54.89	+ 0.06
	44	δ	Ursæ Minoris	T.	.	. .	. .	6.0	41.5	. .	51.0	25.0	. .	. .	15 16.00	− 6.35	. .	− 0.21	18 15 9.44	+ 0.74
	45		Irene	T.	3	10.8	13.9	15.6	22.5	24.9	27.3	34.2	36.0	38.7	53 24.88	+ 0.67	. .	− 0.20	18 53 25.35	. .
	46	ζ	Aquilæ	T.	.	10.3	13.0	14.6	20.9	23.0	25.1	31.3	32.9	35.5	59 22.96	+ 0.36	− 0.29	− 0.20	18 59 23.12	+ 0.10
	47	δ	Aquilæ	T.	.	40.6	43.1	44.6	50.7	52.8	54.9	0.8	2.5	5.1	18 52.79	+ 0.43	− 0.19	− 0.19	19 18 53.04	+ 0.02
	48	κ	Aquilæ	T.	.	37.3	40.0	41.4	47.6	49.7	51.7	57.9	59.4	2.0	29 49.67	+ 0.51	− 0.30	− 0.19	19 29 49.99	+ 0.11
	49	α	Aquilæ, (R.)	T.	3	10.7	13.3	14.9	21.0	23.1	25.1	31.2	32.7	35.4	44 23.05	+ 0.22	. .	− 0.18	19 44 23.09	+ 0.02

19.20.28,41. Bisections at sets B and D.
25. Observation largely in error. Wire B probably used.
26.29,45. Wire A used.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	5 4	5.8	6.7	29.8	26.7	24	. .	852	. .	800	. .	10.1	5 7 39.0	. .	+ 5.0	56 14 5.2	+ 1.6
2	316 36	6.6	7.4	2.3	0.7	.	500	550	465	535	505	10.1	316 39 11.0	. .	− 51.9	7 44 40.3	− 1.1
3	24 18	9 21.5	21.0	13.6	10.5	30	. .	650	. .	500	. .	10.1	24 20 26.5	. .	+ 24.9	75 27 12.6	+ 0.9
4	312 14	9 28.9	29.0	24.8	22.1	23	565	635	530	650	630	10.1	312 18 3.6	. .	− 1 0.6	3 23 24.2	− 2.4
5																	
6	47 42	10 23.3	22.5	15.0	16.5	28	. .	914	. .	800	. .	10.4	47 44 20.3	383	+ 1 1.4	98 51 42.9	− 1.7
7	22 36	8.2	8.5	0.7	0.5	27	. .	816	. .	738	. .	10.6	22 38 52.0	295	+ 22.9	73 45 36.1	+ 0.4
8	47 10	26.3	26.5	18.9	19.1	24	. .	030	. .	890	. .	10.6	47 14 2.0	280	+ 59.0	98 21 22.2	− 2.3
9	17 40	10.9	10.3	2.9	3.8	27	. .	463	. .	. .	. .	10.7	17 42 55.8	. .	+ 17.1	68 49 34.1	− 2.6
10	18 12	4.0	2.9	25.3	26.2	29	. .	. .	. .	610	600	10.7	18 14 27.9	208	+ 17.7	69 21 6.8	− 2.7
11	307 28	10.4	9.5	3.5	4.4	27	408	523	. .	492	441	10.6	307 30 54.0	188	− 1 9.5	358 36 5.7	+ 0.4
12	49 18	9.8	10.5	2.4	2.7	27	. .	318	. .	225	. .	10.6	49 20 57.7	188	+ 1 2.2	100 28 21.1	− 0.3
13	38 44	8.0	8.5	0.6	0.5	22	. .	630	. .	732	. .	10.6	38 48 10.0	206	+ 43.1	89 55 14.3	+ 2.1
14	19 46	11.0	11.5	4.1	4.0	24	. .	818	. .	663	. .	10.6	19 49 35.3	220	+ 19.5	70 56 16.0	+ 0.3
15	316 36	10.6	10.8	5.6	4.7	26	. .	260	205	174	. .	10.6	316 39 12.5	289	− 51.6	7 44 42.1	+ 0.8
16	155 36	6.0	6.5	0.0	27.4	25	038	. .	. .	020	938	10.6	155 39 36.0	. .	− 24.7	75 26 9.9	− 1.6
17	62 52	4.8	6.3	29.0	28.0	28	. .	060	. .	918	. .	10.6	62 54 51.0	288	+ 1 46.4	114 2 58.6	+ 0.6
18	153 44	4.7	5.5	28.6	26.4	29	376	244	. .	140	231	10.6	153 46 32.5	. .	− 27.0	77 19 15.7	− 0.2
19	209 52	3.8	6.5	0.4	27.0	26	232	286	. .	126	128	10.6	209 55 18.6	. .	+ 31.5	21 10 31.1	− 5.1
20	326 38	8.8	8.4	3.5	2.7	26	. .	400	. .	429	. .	10.6	326 41 11.1	292	− 36.0	17 46 56.9	+ 0.9
21	192 34	3.6	6.3	29.6	25.7	28	300	330	. .	080	990	10.6	192 36 48.3	. .	+ 12.3	38 29 20.6	− 2.7
22	41 44	7.3	7.7	0.9	29.5	21	. .	589	. .	490	. .	10.6	41 48 27.9	297	+ 49.0	92 55 38.1	− 2.9
23	47 8	9.5	10.5	3.0	2.6	21	. .	308	. .	249	. .	10.6	47 12 29.3	. .	+ 59.2	98 19 49.7	− 1.1
24	306 6	6.4	6.7	1.7	1.3	26	763	744	763	762	720	10.6	306 9 8.2	300	− 1 14.9	357 14 14.5	− 0.4
25	65 18	6.0	7.3	0.5	29.5	25	. .	472	. .	321	. .	10.6	65 21 29.4	300	+ 1 58.9	116 29 49.5	
26	66 56	6.2	7.7	29.5	28.7	29	523	578	. .	550	512	10.6	67 0 58.7	303	+ 2 8.5	118 9 28.4	− 4.9
27	35 58	6.1	5.5	28.7	28.4	25	. .	463	. .	300	. .	10.6	35 51 31.0	304	+ 39.7	86 58 31.9	+ 0.2
28	328 54	5.1	5.3	0.3	28.6	22	. .	974	. .	038	. .	10.6	328 58 7.3	. .	− 33.0	20 3 55.5	− 0.5
29	47 56	9.0	9.3	2.3	0.8	29	890	710	. .	284	080	10.6	48 0 57.2	. .	+ 1 1.0	99 8 19.4	− 2.7
30	51 46	6.5	7.5	0.3	29.0	33	916	030	. .	790	792	10.6	51 47 19.3	312	+ 1 9.7	102 54 50.2	− 0.7
31	18 46	9.0	8.8	2.6	1.3	29	. .	. .	. .	200	300	10.6	18 48 27.4	200	+ 18.3	69 55 6.9	− 2.8
32																	
33	47 10	0.4	0.3	24.2	23.8	23	. .	740	. .	604	. .	10.6	47 14 2.3	263	+ 58.7	98 21 22.2	− 1.6
34	10 20	5.6	4.9	29.4	28.1	23	. .	339	. .	256	. .	10.6	10 24 3.1	263	+ 10.0	61 30 34.3	− 0.8
35	39 14	3.0	2.4	25.5	25.1	28	. .	050	. .	920	. .	10.6	39 16 54.2	. .	+ 41.5	90 23 59.9	− 1.5
36	40 6	5.5	4.6	28.9	28.0	22	. .	. .	. .	400	541	10.6	40 10 14.8	263	+ 45.9	91 17 21.9	− 0.6
37	31 26	2.6	2.0	24.3	26.0	22	363	266	. .	143	135	10.6	31 30 22.6	259	+ 33.3	82 37 17.1	− 1.1
38																	
39	26 10	4.9	3.1	27.0	25.5	25	. .	772	. .	670	. .	10.4	26 13 27.6	347	+ 27.3	77 20 16.1	+ 0.7
40	330 2	2.4	1.5	26.8	25.3	28	. .	816	. .	670	. .	10.4	330 4 43.3	. .	− 32.0	21 10 32.5	− 2.7
41	213 14	1.5	2.4	26.8	24.4	20	. .	. .	310	260	210	10.4	213 18 52.0	. .	+ 36.5	17 46 52.7	− 2.3
42	347 20	13.5	11.5	6.5	6.1	26	. .	208	. .	052	. .	10.4	547 23 12.4	. .	− 12.4	38 29 21.2	− 1.1
43	59 54	3.1	1.7	24.8	25.1	26	. .	460	. .	343	. .	10.4	59 57 18.5	363	+ 1 35.8	111 5 15.5	− 1.5
44	312 14	10.8	9.0	4.1	4.0	22	980	870	820	840	908	10.4	312 18 4.2	. .	− 1 1.1	3 23 24.3	− 1.0
45	67 10	13.5	13.1	5.8	6.5	31	058	064	. .	880	853	10.4	67 14 30.0	363	+ 2 11.7	118 23 2.9	− 5.0
46	25 10	10.4	9.2	2.7	2.1	28	. .	088	. .	982	. .	10.4	25 12 46.2	. .	+ 26.2	76 19 33.6	− 1.1
47	35 58	8.5	7.3	0.5	1.4	25	. .	395	. .	290	. .	10.4	36 1 29.1	. .	+ 40.4	87 8 30.7	− 0.5
48	46 8	10.2	9.3	2.6	2.4	25	. .	008	. .	940	. .	10.4	46 11 32.9	357	+ 57.9	97 18 52.0	− 0.5
49	149 36	9.5	9.3	3.5	1.5	29	336	340	. .	220	168	10.4	149 38 27.4	. .	− 32.5	81 28 26.3	+ 0.4

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

MOON'S—

No.	Parallax.	Semi-diam.
	′ ″	′ ″

For summary of the elements of reduction see page 3.

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	′ ″	s.
July 22	1	Hesperia . . .	T.	3	43.8	46.3	48.1	54.2	56.2	58.5	4.4	6.0	8.7	0 56.24	+ 0.52	. .	— 0.18	20 0 56.58	.
	2	α² Capricorni . . .	T.	.	. .	41.9	44.0	46.2	48.2	50.4	54.4	56.1	58.6	10 46.12	+ 0.54	— 0.36	— 0.18	20 10 46.48	+ 0.18
	3	Calypso . . .	T.	2	57.8	0.5	2.4	. .	. .	. .	. .	. .	23.4	24 10.68	+ 0.57	. .	— 0.17	20 24 11.08	. .
	4	Venus II, N. . .	N.	3.1	30.6	33.1	34.7	41.0	43.1	45.2	51.5	53.1	55.7	23 43.11	+ 0.32	. .	+ 0.09	7 23 43.52	— 1.92
23	5	Sun I, S. . . .	N.	.	43.1	45.9	47.5	54.1	56.2	58.4	4.8	6.5	9.3	11 56.20	+ 0.29	. .	+ 0.11	8 11 56.60	. .
	6	Sun II, N. . . .	N.	.	57.6	0.5	2.0	8.6	10.7	12.8	19.5	21.0	23.6	14 10.70	+ 0.29	. .	+ 0.11	8 14 11.10	. .
	7	Moon I . . .	N.	2	. .	. .	34.2	36.3	38.5	40.5	42.7	. .	. .	49 38.44	+ 0.39	. .	+ 0.18	11 49 39.01	+ 67.91
	8	Polaris, S. P. . .	N.	2	. .	. .	50.0	28.0	1.5	. .	15.0	29.0	25.0	11 2.53	+ 13.82	. .	+ 0.21	1 11 16.56	+ 0.82
	9	α Virginis . . .	N.	3	2.4	4.9	6.5	12.8	14.9	16.9	23.1	24.7	27.4	18 14.84	+ 0.48	+ 0.32	+ 0.21	13 18 15.53	— 0.11
	10	α Serpentis . . .	N.	4	34.7	37.3	38.8	45.0	47.1	49.1	55.3	56.9	59.4	37 47.07	+ 0.37	+ 0.28	+ 0.25	15 37 47.69	— 0.03
	11	ε Serpentis . . .	N.	4	3.1	5.6	7.1	13.2	15.3	17.4	23.5	25.1	27.7	44 15.33	+ 0.39	+ 0.30	+ 0.25	15 44 15.97	— 0.06
	12	Saturn I, S. . .	N.	3	. .	. .	19.9	22.1	24.2	26.4	28.7	. .	. .	49 24.26	+ 0.53	. .	+ 0.26	15 49 25.05	. .
	13	Saturn II, N. . .	N.	3	12.5	15.2	16.9	. .	. .	. .	34.0	35.6	38.3	49 25.42	+ 0.53	. .	+ 0.26	15 49 26.21	. .
	14	η Draconis . . .	N.	1.2	. .	. .	. .	13.8	18.1	22.6	31.1	34.6	39.6	22 13.88	— 0.22	. .	+ 0.27	16 22 13.93	— 0.80
	15	ζ Ophiuchi . . .	F.	.	42.6	45.1	46.6	52.9	54.7	56.9	3.2	4.7	7.2	29 54.88	+ 0.48	+ 0.33	+ 0.27	16 29 55.63	— 0.11
	16	Groom. 966, S. P. .	N.	2	. .	. .	18.5	10.7	3.0	55.2	47.1	. .	. .	22 2.90	+ 1.57	. .	+ 0.29	5 22 4.76	— 0.41
	17	β Draconis . . .	N.	2	8.9	13.1	15.7	25.8	28.9	32.2	42.2	44.8	49.2	27 28.98	— 0.03	. .	+ 0.29	17 27 29.24	+ 0.08
	18	ω Draconis, (R.) .	N.	4	13.2	24.4	35.8	41.3	47.1	52.9	58.4	9.6	20.6	37 47.03	— 0.88	. .	+ 0.30	17 37 46.48	+ 0.12
	19	ψ Draconis, (R.) .	N.	3	. .	. .	8.2	14.8	21.6	28.0	34.7	. .	. .	44 21.46	— 1.10	. .	+ 0.30	17 44 20.66	+ 0.04
	20	22 Camelopard., S. P.	N.	2	50.2	43.0	38.7	21.3	15.5	9.9	52.5	48.0	40.9	4 15.56	+ 1.27	. .	+ 0.30	6 4 17.13	+ 0.28
	21	η Serpentis . . .	N.	2	18.4	20.9	22.4	28.5	30.5	32.6	38.6	40.2	42.8	14 30.54	+ 0.43	+ 0.20	+ 0.31	18 14 31.28	+ 0.12
	22	δ Ursæ Minoris . .	N.	3	. .	. .	. .	. .	. .	23.0	30.0	57.5	40.7	15 13.63	— 5.12	. .	+ 0.31	18 15 8.82	+ 0.33
	23	β Lyræ	N.	3	59.8	2.8	4.6	12.0	14.5	16.8	24.0	25.8	29.0	45 14.37	+ 0.19	+ 0.30	+ 0.32	18 45 14.88	+ 0.04
	24	γ Aquilæ	N.	3	48.4	51.2	52.6	58.8	1.0	2.9	9.2	10.8	13.3	40 0.91	+ 0.36	+ 0.28	+ 0.34	19 40 1.61	+ 0.07
25	25	Polaris, S. P. . .	T.	.	25.0	42.0	41.0	31.0	. .	40.0	. .	. .	. .	11 5.38	+ 13.42	. .	+ 1.09	1 11 19.89	+ 2.51
	26	ζ Virginis . . .	T.	3	45.3	48.0	49.4	55.6	57.6	59.7	5.6	7.3	9.8	27 57.59	+ 0.39	+ 1.15	+ 1.10	13 27 59.08	— 0.05
	27	Moon I, N. . .	T.	3	43.2	45.8	47.5	53.6	55.9	58.0	4.3	5.8	8.4	38 55.83	+ 0.43	. .	+ 1.10	13 38 57.36	+ 65.91
	28	η Bootis	T.	2	10.4	13.0	14.8	21.2	23.4	25.5	. .	. .	. .	48 23.35	+ 0.28	+ 1.23	+ 1.10	13 48 24.73	— 0.16
	29	α Bootis	T.	3	25.0	27.7	29.5	35.9	38.1	40.3	46.7	48.3	51.1	9 38.07	+ 0.27	+ 1.09	+ 1.11	14 9 39.45	+ 0.03
	30	1 Aquilæ	T.	.	50.1	52.5	54.2	0.3	2.4	4.3	10.6	12.3	14.7	28 2.38	+ 0.44	+ 1.11	+ 1.19	18 28 4.01	+ 0.12
	31	51 Cephei, S. P. . .	T.	.	. .	. .	45.0	2.0	18.5	36.7	54.3	. .	. .	37 19.46	+ 6.98	. .	+ 1.19	6 37 27.63	+ 1.22
	32	σ Sagittarii . . .	T.	.	52.2	55.0	56.6	3.6	5.9	8.2	14.9	16.7	19.5	47 5.84	+ 0.57	+ 1.17	+ 1.19	18 47 7.60	0.00
	33	ζ Aquilæ, (R.) . .	T.	4	9.1	11.6	13.2	19.6	21.7	23.7	30.1	31.7	34.4	59 21.68	+ 0.16	. .	+ 1.19	18 59 23.03	+ 0.07
	34	d Sagittarii . . .	T.	3	42.7	45.4	47.1	53.5	55.7	57.8	4.2	5.9	8.6	9 55.66	+ 0.51	+ 1.13	+ 1.20	19 9 57.37	— 0.01
	35	δ Aquilæ, (R.) . .	T.	3	39.1	42.1	43.4	49.6	51.7	53.7	. .	. .	. .	18 51.60	+ 0.25	. .	+ 1.20	19 18 53.05	+ 0.02
	36	κ Aquilæ . . .	T.	.	35.9	38.5	40.2	46.3	48.3	50.4	56.5	58.1	0.5	29 48.30	+ 0.44	+ 1.15	+ 1.20	19 29 49.94	+ 0.05
	37	γ Aquilæ . . .	T.	3	47.5	50.1	51.7	58.0	0.0	2.1	8.3	9.8	12.5	40 0.00	+ 0.33	+ 1.23	+ 1.21	19 40 1.54	— 0.01
	38	α Aquilæ . . .	T.	.	9.2	11.8	13.4	19.6	21.6	23.7	29.8	31.4	34.0	44 21.61	+ 0.35	+ 1.12	+ 1.21	19 44 23.17	+ 0.10
	39	β Aquilæ . . .	T.	3	38.4	41.0	42.6	48.6	50.7	52.7	59.0	0.5	3.1	48 50.72	+ 0.36	+ 1.17	+ 1.21	19 48 52.29	+ 0.04
	40	Hesperia . . .	T.	2	23.6	25.9	. .	. .	. .	. .	. .	. .	. .	58 35.86	+ 0.45	. .	+ 1.21	19 58 37.52	. .
	41	α² Capricorni . .	T.	3	32.1	34.7	36.3	42.5	44.6	46.7	53.1	54.6	57.3	10 44.65	+ 0.47	+ 1.21	+ 1.22	20 10 46.34	+ 0.01
	42	Calypso . . .	T.	.	. .	. .	18.6	20.7	. .	. .	37.3	38.9	41.4	21 28.82	+ 0.50	. .	+ 1.22	20 21 30.54	. .
28	43	Sun, S.	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	44	Sun II, N. . . .	E.	.	36.9	39.5	41.3	47.6	49.9	52.0	58.4	0.1	2.9	49.84	+ 0.17	. .	+ 3.57	8 33 53.58	— 66.93
	45	δ Ophiuchi . . .	E.	.	11.5	14.0	15.4	21.6	23.6	25.7	32.1	33.5	36.1	7 23.72	+ 0.22	+ 3.78	+ 3.68	16 7 27.62	— 0.08
	46	Moon I, N. . .	E.	4	52.7	55.5	57.0	3.5	5.7	7.9	14.4	16.4	19.0	17 5.79	+ 0.26	. .	+ 3.68	16 17 9.73	+ 65.56
	47	ζ Ophiuchi . . .	E.	.	39.3	41.9	43.5	49.6	51.7	53.7	0.1	1.5	4.3	29 51.73	+ 0.24	+ 3.67	+ 3.68	16 29 55.65	— 0.04
	48	κ Ophiuchi . . .	E.	.	. .	. .	19.3	21.1	23.3	25.4	27.4	. .	. .	51 23.32	+ 0.20	+ 3.71	+ 3.68	16 51 27.20	0.00
	49	d Herculis . . .	E.	.	27.4	30.6	32.4	39.8	42.1	44.5	51.9	53.6	56.8	56 42.12	+ 0.14	. .	+ 3.68	16 56 46.04	+ 0.35

1, 3, 40, 42. Wire A used.

15. Bisections at E_2 and VII.

16, 18, 22, 27. Bisections at sets B and D.

22. Double weight for last 2 wires.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° '	r. ''	''	''	''							''	° ' ''		' ''	° ' ''	''
1	48 8	9.8	9.5	2.0	2.4	30	758	654	. .	570	510	10.4	48 12 40.7	357	+ 1 2.0	99 20 3.9	− 2.7
2	51 46	5.8	5.0	28.3	28.8	26	. .	128	. .	092	. .	10.4	51 49 19.7	. .	+ 1 10.5	102 56 51.4	+ 0.8
3	55 18	10.8	9.5	3.0	2.7	31	138	950	. .	. .	. .	10.4	55 22 34.4	357	+ 1 20.3	106 30 15.9	− 3.6
4	23 12	10 5.1	4.6	28.5	28.4	26	360	382	. .	. .	. .	11.4	23 15 18.7	230	+ 23.2	74 22 3.1	−11.7
5	19 10	14.5	12.8	6.0	5.8	27	990	940	. .	. .	. .	11.4	19 12 46.1	. .	+ 18.7	70 19 26.0	− 2.8
6	18 38	11.5	9.2	3.8	4.2	26	. .	. .	105	030	921	11.4	18 41 16.2	213	+ 18.2	69 47 55.6	− 2.8
7																	
8	307 28	3.2	3.5	27.4	28.7	27	. .	. .	865	. .	. .	10.8	307 30 54.6	192	− 1 9.6	358 36 6.2	+ 0.1
9	49 18	8.1	8.1	1.3	0.5	27	. .	. .	490	. .	. .	10.8	49 20 56.5	. .	+ 1 2.3	100 28 20.0	− 1.0
10	31 58	5.8	4.5	27.0	26.2	22	. .	172	. .	078	. .	10.6	32 2 22.0	261	+ 34.0	83 9 17.2	+ 0.7
11	33 56	6.4	5.4	28.1	27.0	22	. .	. .	467	. .	. .	10.6	34 0 15.9	. .	+ 36.7	85 7 13.8	− 0.8
12	56 52	6.2	5.3	28.0	27.4	23	305	. .	. .	. .	062	10.6	56 56 4.7	. .	+ 1 23.4	108 3 49.3	− 0.8
13	56 52	6.2	5.3	28.0	27.4	24	. .	365	. .	258	. .	10.6	56 55 47.6	. .	+ 1 23.4	108 3 32.2	− 0.8
14	337 2	8.5	7.1	3.0	0.3	27	. .	. .	. .	720	795	10.6	337 4 51.9	273	− 23.0	28 10 50.1	− 0.2
15	49 6	7.2	7.0	29.8	28.4	21	. .	. .	. .	875	982	10.6	49 10 21.5	. .	+ 1 3.1	100 17 45.8	+ 1.9
16	293 48	4.1	3.6	28.0	27.2	22	. .	068	135	050	. .	10.6	293 52 22.5	. .	− 2 2.7	344 56 41.0	− 0.1
17	346 26	4.8	3.6	27.5	26.0	25	. .	. .	486	405	406	10.6	346 29 31.6	287	− 13.2	37 35 39.6	− 1.1
18	209 52	9 29.5	1.2	25.7	20.8	26	595	574	. .	534	506	10.6	209 55 18.2	. .	+ 31.5	21 10 31.5	− 3.4
19	213 14	4.2	6.0	0.0	26.8	20	. .	. .	114	. .	. .	10.6	213 18 51.7	. .	+ 36.0	17 46 53.5	− 1.2
20	288 14	3.4	3.3	28.5	26.9	24	466	512	. .	445	372	10.6	288 17 45.4	290	− 2 43.7	339 21 22.9	− 0.8
21	41 46	4.5	3.7	28.1	26.6	29	. .	. .	675	. .	. .	10.6	41 48 26.7	. .	+ 48.9	92 55 36.8	− 1.8
22	312 14	5.9	4.6	29.8	28.5	23	. .	. .	. .	338	420	10.6	312 18 2.1	. .	− 1 0.1	3 23 23.2	− 1.9
23	5 38	8.8	7.7	2.3	0.4	28	914	887	. .	715	764	10.6	5 40 36.0	297	+ 5.5	56 47 2.7	− 1.7
24	28 32	8.5	6.6	0.4	29.6	26	315	291	. .	202	156	10.6	28 35 16.2	299	+ 29.9	79 42 7.3	− 0.1
25																	
26	38 44	11.2	10.5	3.5	4.4	22	. .	640	. .	658	. . .	11.4	38 48 8.2	248	+ 43.6	89 55 13.0	+ 1.3
27	44 48	12.6	11.9	4.6	6.7	26	. .	979	768	515	. .	11.4	44 51 3.9	248	+ 53.9	95 58 19.0	
28																	
29	18 58	10.6	9.8	2.3	3.4	27	. .	393	. .	268	. .	11.4	19 0 57.7	242	+ 18.6	70 7 37.5	+ 1.0
30	47 10	13.3	13.8	7.0	5.7	29	. .	010	. .	908	. .	11.4	47 12 29.1	327	+ 59.6	98 19 49.9	− 0.4
31	306 6	9.5	9.5	4.5	4.7	26	. .	688	770	686	. .	11.4	306 9 6.4	. .	− 1 15.4	357 14 12.2	− 0.7
32	65 16	13.1	13.5	7.1	5.7	27	. .	225	. .	105	. .	11.4	65 18 56.6	332	+ 1 59.5	116 27 17.3	+ 0.7
33	154 44	7.7	7.7	1.8	28.8	25	461	501	. .	370	360	11.4	154 47 13.8	. .	− 26.0	76 19 33.4	− 0.7
34	58 0	12.3	12.5	5.7	4.6	26	. .	778	. .	700	. .	11.4	58 3 4.2	338	+ 1 28.5	109 10 53.9	− 0.5
35	143 56	10.5	11.7	4.5	2.0	29	. .	072	. .	001	. .	11.4	143 58 30.7	. .	− 40.2	87 8 30.7	− 0.1
36	46 8	13.0	13.5	6.8	5.6	24	. .	780	. .	740	. .	11.4	46 11 33.6	338	+ 57.6	97 18 52.4	+ 0.2
37	28 32	12.6	12.2	5.8	4.5	26	. .	030	. .	915	. .	11.4	28 35 16.1	. .	+ 30.2	79 42 7.5	+ 0.5
38	30 18	10.5	11.0	3.8	2.5	25	. .	093	. .	948	. .	11.4	30 21 32.5	. .	+ 32.4	81 28 26.1	+ 0.6
39	32 44	8.5	8.5	0.9	0.7	23	. .	248	. .	060	. .	11.4	32 48 3.3	. .	+ 35.7	83 55 0.2	+ 0.2
40	48 16	14.5	14.0	7.6	6.3	23	. .	190	. .	940	. .	11.4	48 22 32.7	345	+ 1 2.3	99 29 56.2	− 2.7
41	51 46	10.7	11.3	4.4	3.2	25	. .	833	. .	864	. .	11.4	51 49 19.3	346	+ 1 10.3	102 56 50.8	+ 0.3
42	55 32	14.7	14.3	7.4	6.8	33	. .	. .	. .	730	. .	11.4	55 35 48.6	345	+ 1 20.8	106 43 30.6	− 3.6
43	20 16	10 2.3	1.5	26.3	25.6	.	. .	160	. .	. .	. .	12.3	20 19 25.2	. .	+ 20.4	71 26 6.8	− 3.0
44	19 44	10 0.3	29.3	24.4	23.7	24	. .	. .	. .	330	475	12.3	19 47 51.8	305	+ 19.7	70 54 32.7	− 2.9
45	42 12	8.5	8.6	3.5	2.5	31	. .	905	. .	810	. .	12.0	42 13 49.5	. .	+ 50.5	93 21 1.2	0.0
46	55 28	9 27.8	28.5	22.0	18.5	29	555	. .	485	. .	460	12.0	55 30 37.2	. .	+ 1 20.9	106 38 19.3	
47	49 6	10 10.1	8.7	3.8	2.5	22	070	940	. .	. .	. .	12.0	49 10 19.7	. .	+ 1 4.5	100 17 45.4	+ 1.7
48	29 14	9.8	8.8	3.8	1.8	23	. .	. .	. .	343	283	12.0	29 17 59.1	380	+ 31.3	80 24 51.6	+ 0.9
49	5 4	9.1	6.5	2.3	0.7	24	. .	935	. .	875	. .	12.0	5 7 37.3	. .	+ 5.0	56 14 3.5	+ 1.8

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	' ''	' ''
27	− 40 40.6	+ 15 48.8
46	− 45 41.7	+ 15 11.2

DATE.	Number.	OBJECT.	Observer.	Weight.	I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
July 28	1	ε Ursæ Minoris	E.	.	.	.	6.0	20.4	35.3	49.7	4.5	.	.	59 35.25	− 0.61	. .	+ 3.68	16 59 37.32	− 1.16
	2	α Herculis	E.	.	23.4	26.1	27.6	33.9	35.9	38.0	44.4	46.0	48.5	8 35.98	+ 0.18	+ 3.61	+ 3.69	17 8 39.85	+ 0.08
	3	ψ¹ Draconis	E.	.	.	.	3.5	10.1	16.6	23.5	30.1	.	.	44 16.76	− 0.07	. .	+ 3.70	17 44 20.39	+ 0.09
	4	γ Draconis	E.	.	11.3	15.5	17.6	27.7	30.9	34.2	44.0	46.6	50.6	53 30.93	+ 0.09	. .	+ 3.70	17 52 34.72	− 0.18
	5	δ Ursæ Minoris	E.	.	37.5	21.0	45.0	.	.	.	22.0	49.0	31.5	15 4.81	− 1.02	. .	+ 3.70	18 15 7.40	+ 0.14
	6		E.	.	.	.	55.0	30.0	6.0	40.0	15.5	.	.						
29	7	ε Ursæ Minoris	T.	.	5.0	24.7	35.8	21.8	36.4	51.8	37.0	48.7	7.8	59 36.47	− 1.24	. .	+ 2.79	16 59 38.02	− 0.30
	8	Moon I, N.	T.	3	47.1	50.0	51.6	58.1	0.3	2.5	9.2	10.8	13.6	10 0.36	+ 0.35	. .	+ 2.80	17 10 3.51	+65.60
	9	b Ophiuchi	T.	.	4.5	7.4	9.2	15.4	18.0	20.2	27.0	28.5	31.3	18 17.99	+ 0.38	+ 2.82	+ 2.80	17 18 21.17	− 0.02
	10	α Ophiuchi	T.	.	35.0	37.7	39.3	45.4	47.5	49.6	56.0	57.5	0.1	28 47.57	+ 0.24	+ 2.77	+ 2.81	17 28 50.62	+ 0.05
	11	μ Herculis	T.	3	2.9	5.7	7.4	14.3	16.7	19.1	26.0	27.6	30.5	41 16.69	+ 0.18	+ 2.81	+ 2.81	17 41 19.68	[illegible]
	12	μ Sagittarii	T.	3	38.5	41.2	42.9	49.4	51.6	53.8	0.3	1.9	4.7	5 51.59	+ 0.36	+ 2.85	+ 2.81	18 5 54.70	− 0.06
	13	δ Ursæ Minoris	T.	.	.	.	57.0	33.0	7.8	42.0	16.0	.	.	15 7.28	− 2.20	. .	+ 2.82	18 15 7.84	+ 0.77
	14	α Lyræ	T.	.	12.0	15.3	17.2	25.0	27.5	30.2	38.1	40.1	43.4	32 27.64	+ 0.13	+ 2.79	+ 2.82	18 32 30.59	+ 0.03
30	15	η Herculis	F.	.	.	.	.	.	.	.	.	.	.	. .	.	. .	. .	. . .	.
	16	κ Ophiuchi, (R.)	F.	.	12.3	14.9	16.6	22.6	24.7	26.8	33.0	34.5	37.2	51 24.73	+ 0.16	. .	+ 3.38	16 51 28.27	+ 1.00
	17	ε Ursæ Minoris	F.	.	.	.	.	.	.	3.0	15.5	25.0	8.0	0 35.52	− 0.83	. .	+ 3.39	38.15	− 0.01
	18	b Ophiuchi	F.	.	4.1	6.9	8.6	15.2	17.5	19.8	26.3	28.1	30.9	18 17.49	+ 0.26	. .	+ 3.39	17 18 21.14	− 0.04
	19	ω Draconis	F.	.	.	.	38.1	43.8	49.5	55.0	6.5	10.8	17.8	37 43.87	− 0.11	. .	+ 3.40	17 37 47.16	+ 1.05
	20	μ Sagittarii	F.	.	38.1	40.8	42.4	48.9	51.1	53.4	59.9	1.6	4.2	5 51.16	+ 0.25	+ 3.38	+ 3.41	18 5 54.82	+ 0.01
	21	δ Ursæ Minoris	F.	.	.	.	56.5	30.0	5.0	40.0	16.0	.	.	15 5.66	− 1.48	. .	+ 3.42	18 15 7.60	+ 0.53
	22	1 Aquilæ	F.	.	47.9	50.5	52.1	58.3	0.2	2.3	8.5	10.1	12.6	28 0.28	+ 0.21	+ 3.43	+ 3.42	18 28 3.91	+ 0.03
	23	51 Cephei, S. P.	F.	.	35.5	43.0	13.0	43.0	13.0	.	.	.	.	. . .	+ 1.85	. .	+ 3.43	30.72	+ 3.04
31*	24	ψ¹ Draconis	E.	.	.	.	2.2	9.1	15.8	22.2	28.7	.	.	44 15.60	+ 0.41	. .	+ 4.22	17 44 20.23	+ 0.06
	25	γ Draconis	E.	.	10.7	15.0	17.4	27.3	30.5	33.7	43.6	46.1	50.0	53 30.48	+ 0.19	. .	+ 4.22	17 53 34.89	+ 0.05
	26	μ Sagittarii	E.	.	37.3	40.0	41.7	48.3	50.4	52.5	59.2	0.9	3.5	5 50.42	+ 0.05	+ 4.32	+ 4.23	18 5 54.70	− 0.11
	27	δ Ursæ Minoris	E.	.	.	.	52.0	25.0	0.0	35.5	9.0	.	.	15 0.42	+ 2.09	. .	+ 4.23	18 15 6.74	+ 0.28
	28	51 Cephei, S. P.	E.	.	.	.	53.5	9.0	25.5	.	.	.	.	37 27.33	− 2.54	. .	+ 4.24	6 37 29.03	+ 0.55
	29	β Lyræ	E.	.	.	.	.	.	.	.	.	.	.	. .	.	. .	. .	. . .	.
	30	Moon I, N.	E.	.	25.6	30.0	34.6	36.7	38.9	41.2	43.4	48.0	52.5	55 38.99	+ 0.06	. .	+ 4.25	18 55 43.30	+65.13
	31	δ Aquilæ	E.	.	36.6	39.2	40.6	46.9	48.9	50.9	57.1	58.7	1.1	18 48.89	+ 0.08	+ 4.08	+ 4.26	19 18 53.23	+ 0.13
Aug. 5	32	Sun I, S.	T.	.	22.0	24.6	26.3	32.7	34.9	37.0	43.0	44.7	47.6	2 34.76	+ 0.23	. .	+ 5.83	9 2 40.82	.
	33	Sun, II.	T.	.	34.2	36.9	38.4	44.9	47.1	49.1	55.7	57.1	0.0	4 47.04	+ 0.23	. .	+ 5.83	9 5 53.10	. .
	34	μ Sagittarii	T.	.	35.2	38.0	39.6	46.1	48.3	50.4	57.1	58.7	1.4	5 48.31	+ 0.40	+ 6.04	+ 5.92	18 5 54.63	− 0.14
	35	δ Ursæ Minoris	T.	.	.	.	54.0	28.0	2.0	38.0	12.0	.	.	15 2.92	− 3.06	. .	+ 5.92	18 15 5.78	+ 0.77
	36	1 Aquilæ	T.	3	45.1	47.7	49.4	55.6	57.6	59.6	5.8	7.4	10.0	27 57.58	+ 0.34	+ 5.98	+ 5.92	18 28 3.84	− 0.02
	37	α Lyræ	T.	.	8.8	12.0	14.1	21.9	24.5	27.1	35.0	37.0	40.1	32 24.50	+ 0.12	+ 5.86	+ 5.93	18 32 30.55	+ 0.07
	38	δ Aquilæ, (R.)	T.	.	34.6	37.2	38.6	45.0	47.0	49.1	55.1	56.6	59.3	18 46.95	+ 0.23	. .	+ 5.93	19 18 53.11	+ 0.08
	39	κ Aquilæ	T.	.	31.1	33.8	35.2	41.5	43.5	45.6	51.0	53.4	56.0	29 43.56	+ 0.33	+ 6.02	+ 5.93	19 29 49.82	− 0.09
	40	ζ Aquilæ, (R.)	T.	3	43.1	45.7	47.2	53.3	55.4	57.5	3.8	5.5	8.1	39 55.51	+ 0.18	. .	+ 5.94	19 40 1.63	+ 0.07
	41	Hesperia	T.	2	19.7	.	.	.	.	.	.	.	.	50 32.14	+ 0.34	. .	+ 5.94	19 50 38.42	. .
	42	τ Aquilæ	T.	.	25.5	28.1	29.7	35.7	37.8	40.0	46.2	47.7	50.2	57 37.88	+ 0.27	+ 5.88	+ 5.94	19 57 44.09	− 0.03
	43	α² Capricorni	T.	.	27.7	30.1	31.7	38.1	40.2	42.3	48.6	50.1	52.7	10 40.17	+ 0.36	+ 5.86	+ 5.94	20 10 46.47	+ 0.08
	44	79 Draconis	T.	.	.	.	0.5	7.4	14.7	21.8	29.1	.	.	51 14.70	− 0.39	. .	+ 5.96	21 51 20.27	+ 0.71
	45	32 Ursæ Majoris, S.P.	T.	.	.	.	.	.	.	.	.	.	.	. .	.	. .	. .	. . .	.
	46	π Aquarii	T.	.	16.2	18.6	20.3	26.3	28.4	30.4	36.0	38.1	40.7	18 28.40	+ 0.30	+ 5.92	+ 5.96	21 18 34.66	+ 0.03
	47	Ceres	T.	.	.	.	.	.	.	.	.	.	.	. .	.	. .	. .	. . .	.
	48	ι Cephei, (R.)	T.	3	28.9	35.5	39.3	53.8	58.7	4.1	18.4	22.2	28.5	44 58.82	− 0.35	. .	+ 5.97	22 45 4.44	+ 0.55

3.8. Bisections at sets B and D.
7.24. Bisections at C_1, C_3, and C_5.
16.32.42. Wire B used.
17. R. A. over three wires of set E and VII; bisections at the same wires.
19. Bisections at E_5 and VII.
23. Bisections at C_1 and set B.
30. Bisections at B_1, C_1, C_3, C_5, and D_3.
41. Wire A used.
43. Seems one rev. wrong in N. P. D.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Simpiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	316 36	11.8	11.1	6.7	6.0	26	482	455	515	470	510	12.0	316 39 8.7	. .	− 52.7	7 44 37.2	− 2.2
2	24 18	14.1	11.4	5.2	4.3	29	455	382	. .	380	440	12.0	24 20 24.1	. .	+ 25.3	75 27 10.6	+ 0.4
3	326 38	10 9.8	6.0	2.5	0.8	26	. .	. .	. .	542	575	12.0	326 41 11.5	. .	− 36.8	17 46 55.9	+ 2.5
4	347 20	11.6	8.4	4.3	2.5	26	560	485	. .	395	400	12.0	347 23 12.0	. .	− 12.6	38 29 20.6	− 0.1
5 6	312 14	10.3	7.6	4.0	3.4	23	128	133	150	148	132	12.0	312 18 2.5	405	− 1 1.6	3 23 22.1	− 1.6
7	316 36	7.9	6.4	2.5	0.4	26	. .	601	609	516	. .	11.5	316 39 11.5	373	− 52.6	7 44 40.1	+ 0.9
8	57 26	8.0	6.3	29.6	0.5	27	372	. .	372	. .	200	11.5	57 29 0.8	369	+ 1 27.2	108 36 49.2	
9	62 52	7.0	6.0	0.0	29.3	28	. .	194	. .	103	. .	11.5	62 54 48.5	369	+ 1 48.4	114 4 58.1	− 0.1
10	26 10	11.6	9.3	3.0	2.6	25	. .	534	. .	436	. .	11.5	26 13 25.8	. .	+ 27.5	77 20 14.5	+ 0.1
11	11 2	8.7	7.4	2.6	1.4	26	. .	588	. .	463	. .	11.5	11 5 11.6	. .	+ 10.9	62 11 43.7	− 0.7
12	59 54	10.4	8.7	2.1	1.7	25	. .	972	. .	840	. .	11.5	59 57 20.1	373	+ 1 36.1	111 5 17.4	+ 0.3
13	312 14	7.9	5.9	2.0	1.5	23	. .	309	310	310	. .	11.5	312 18 1.3	374	− 1 1.2	3 23 21.3	− 2.1
14	0 10	9.4	6.5	2.0	1.0	25	. .	. .	. .	014	. .	11.5	0 13 34.3	. .	+ 0.2	51 19 55.7	− 0.6
15	359 38	10 0.6	27.7	26.3	26.2	20	. .	. .	. .	. .	310	12.5	359 42 54.1	328	− 0.3	50 49 15.0	+ 3.6
16	150 38	9 28.3	28.3	21.5	20.9	38	. .	748	. .	752	. .	12.5	150 35 44.6	. .	− 31.1	80 31 7.7	− 2.8
17	316 36	9 22.3	19.5	15.0	10.8	28	. .	146	148	054	058	12.5	316 39 9.1	343	− 52.2	7 44 38.1	− 0.9
18	62 52	10 1.1	0.4	28.3	25.3	28	163	233	. .	445	785	12.5	62 54 49.7	. .	+ 1 47.9	114 2 58.8	+ 0.6
19	330 2	10 0.7	1.2	25.1	25.8	29	. .	. .	. .	042	875	12.5	330 4 42.5	. .	− 31.9	21 10 31.8	− 1.4
20	59 54	9 27.4	27.4	19.6	22.0	26	570	719	. .	472	655	12.5	59 57 22.0	364	+ 1 35.9	111 5 19.1	+ 2.0
21	312 14	10 1.9	29.9	26.1	28.1	23	601	753	632	648	623	12.5	312 18 2.5	. .	− 1 1.1	3 23 22.6	− 0.5
22																	
23	306 6	10 29.7	28.5	23.6	25.4	25	414	388	451	568	. .	12.5	306 9 6.9	372	− 1 16.2	357 14 11.9	+ 0.1
24	326 38	9.6	7.4	5.0	4.8	26	. .	500	570	635	. .	11.1	326 41 8.8	. .	− 36.6	17 46 53.4	+ 0.6
25	347 20	7.6	6.1	1.5	2.8	26	755	780	. .	590	585	11.1	347 23 9.9	. .	− 12.5	38 29 18.6	− 1.5
26	59 54	6.8	6.3	0.9	1.4	26	. .	150	. .	098	. .	11.1	59 57 18.2	. .	+ 1 36.0	111 5 15.4	− 1.7
27	312 14	10.0	8.3	4.3	5.6	23	045	025	020	070	150	11.1	312 18 2.1	. .	− 1 1.1	3 23 22.2	− 0.7
28	306 6	5.2	5.0	0.8	1.3	27	. .	. .	. .	100	. .	11.1	306 9 5.1	. .	− 1 16.1	357 14 10.2	− 1.3
29	5 36	13.8	12.3	7.1	6.1	20	. .	. .	. .	. .	350	11.0	5 40 39.8	. .	+ 5.5	56 47 6.5	+ 4.0
30	58 34	4.2	3.0	27.8	27.0	27	110	102	062	045	052	11.0	58 37 7.1	. .	+ 1 31.0	109 44 59.3	
31	35 58	8.7	6.0	0.2	2.8	25	345	390	. .	380	425	11.1	36 1 29.1	370	+ 40.5	87 8 30.8	+ 0.7
32	22 20	2.8	0.0	24.3	23.8	22	. .	338	. .	. .	. .	11.1	22 21 55.0	310	+ 22.6	73 28 38.8	− 3.3
33																	
34	59 54	8.3	7.7	29.5	3.4	26	. .	188	. .	068	. .	11.1	59 57 17.3	418	+ 1 37.1	111 5 15.6	− 1.6
35	312 14	10.3	9.0	3.2	5.0	23	050	010	029	049	103	11.1	.312 18 2.4	. .	− 1 1.8	3 23 21.8	− 0.1
36	47 10	16.6	16.5	8.8	11.0	29	. .	018	. .	920	. .	11.1	47 12 25.4	. .	+ 1 0.8	98 19 47.4	− 2.4
37	0 10	13.2	11.5	5.0	6.8	24	. .	630	. .	758	. .	11.1	0 13 35.2	417	+ 0.2	51 19 56.6	+ 1.8
38	143 56	8.8	9.5	2.0	2.4	29	. .	153	. .	010	954	11.1	143 58 31.5	419	− 41.0	87 8 30.7	+ 1.1
39	46 8	10.5	10.8	3.0	5.3	24	. .	982	. .	020	. .	11.1	46 11 31.9	. .	+ 58.7	98 18 51.8	+ 0.3
40	151 22	7.0	7.4	29.8	1.0	28	254	225	. .	190	110	11.1	151 24 46.3	419	− 30.7	79 41 5.3	+ 0.1
41	48 56	10.8	10.5	2.8	4.4	28	100	. .	. .	. .	860	11.1	49 1 20.7	. .	+ 1 4.7	100 8 46.6	− 2.7
42	31 58	9 29.3	28.7	20.5	21.3	28	. .	. .	. .	560	414	11.1	31 58 20.2	. .	+ 35.2	83 5 16.6	+ 0.4
43	51 46	13.1	13.1	5.5	7.4	24	. .	883	. .	764	. .	11.1	51 49 32.3	418	+ 1 11.5	102 57 5.0	+15.0
44	325 46	8.6	7.8	2.5	3.5	25	. .	. .	436	. .	. .	11.1	325 49 27.2	428	− 38.4	16 55 10.0	− 1.8
45	284 40	7.4	7.5	1.9	3.3	26	940	080	108	. .	. .	11.1	284 43 1.7	437	− 3 31.6	335 45 51.3	− 0.5
46	38 6	10.8	9.7	2.5	4.5	22	. .	728	. .	692	. .	11.1	38 10 7.5	. .	+ 44.5	89 17 13.2	− 0.1
47	63 28	11.6	11.4	4.1	7.3	24	. .	163	. .	960	. .	11.1	63 31 45.0	438	+ 1 53.1	114 39 59.3	− 3.9
48	206 34	6.4	9.5	2.4	1.3	29	. .	. .	. .	587	540	11.1	206 36 23.5	. .	+ 28.3	24 29 29.4	+ 1.9

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
8	− 46 17.8	+ 15 2.3
30	− 46 14.6	+ 14 50.1

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
July 14	1	ζ Persei	T.	3	0.7	3.7	5.5	12.7	15.1	17.4	24.6	26.3	29.4	46 15.04	+ 0.25	−24.26	−24.29	3 45 51.00	− 0.03
	2	γ Eridani . . .	T.	.	3.5	6.2	7.6	14.0	16.1	18.2	24.5	26.1	28.7	52 16.10	+ 0.63	−24.28	−24.29	3 51 52.44	+ 0.02
	3	γ Tauri	T.	3	28.6	31.3	32.9	39.2	41.3	43.4	49.8	51.4	54.1	12 41.33	+ 0.41	−24.30	−24.30	4 12 17.44	+ 0.02
	4	ε Tauri	T.	3	6.1	8.7	10.3	16.8	18.9	21.1	27.6	29.3	32.0	21 18.98	+.0.38	−24.31	−24.30	4 20 55.08	+ 0.03
15	5	Sun I, N. . . .	T.	3	4.1	6.8	8.6	15.2	17.5	19.7	26.1	27.8	30.5	40 17.37	+ 0.37	. .	−24.44	7 39 53.30	. .
	6	Sun II, S. . . .	T.	3	20.0	22.7	24.5	31.0	33.2	35.4	41.8	43.5	46.3	42 33.16	+ 0.37	. .	−24.44	7 42 9.09	. .
	7	γ Leonis	T.	.	. .	. .	. .	5.8	7.9	10.0	14.3	15.9	18.5	13 5.64	+ 0.38	−24.59	−24.54	10 12 41.48	+ 0.02
	8	α Herculis . . .	T.	.	50.7	53.3	54.9	1.1	3.3	5.4	11.7	13.2	15.8	9 3.27	+ 0.42	−23.83	−23.82	17 8 39.87	+ 0.01
	9	b Ophiuchi . . .	T.	.	30.9	33.8	35.2	42.0	44.3	46.6	53.4	55.0	57.9	18 44.34	+ 0.72	−23.79	−23.83	17 18 21.23	− 0.04
	10	β Draconis . . .	T.	.	33.3	37.5	39.9	49.9	53.5	56.5	6.5	9.2	13.1	27 53.27	− 0.01	. .	−23.83	7 27 29.43	+ 0.13
	11	ω Draconis . . .	T.	.	37.3	44.4	48.6	5.5	11.5	16.9	33.8	38.0	45.2	38 11.25	− 0.54	. .	−23.84	17 37 46.42	− 0.21
	12	ψ Draconis, (R.) . .	T.	.	. .	. .	33.1	39.7	46.5	53.1	59.8	. .	. .	44 46.44	− 1.47	. .	−23.84	17 44 21.13	+ 0.24
	13	γ Draconis, (R.) . .	T.	.	39.7	43.9	46.2	56.2	59.5	2.7	12.5	14.9	18.8	53 59.38	− 0.39	. .	−23.85	17 53 35.14	+ 0.05
	14	μ Sagittarii . . .	T.	.	4.7	7.6	9.2	15.8	18.0	20.2	26.8	28.4	31.1	6 17.98	+ 0.69	−23.85	−23.86	18 6 54.81	− 0.03
	15	δ Ursæ Minoris . .	T.	.	. .	. .	. .	43.0	14.0	50.0	0.0	25.0	8.0	15 41.48	− 6.31	. .	−23.87	18 15 11.30	+ 1.01
	16	Moon II . . .	N.	2	40.8	43.6	45.1	51.8	53.9	56.0	2.6	4.3	7.0	30 53.90	+ 0.48	. .	−25.35	4 30 29.03	−70.14
	17	β Orionis . . .	N.	2	24.1	26.6	28.1	34.2	36.2	38.3	44.5	46.1	48.7	8 36.32	+ 0.71	−25.38	−25.37	5 8 11.66	+ 0.02
	18	β Tauri	N.	3	8.1	11.1	12.7	19.8	22.0	24.3	31.4	33.0	36.0	18 22.04	+ 0.35	−25.29	−25.38	5 17 57.01	− 0.10
16	19	Sun I, S. . . .	N.	1	7.3	10.0	11.6	18.3	20.3	22.6	29.2	30.8	33.4	44 20.39	+ 0.43	. .	−25.47	7 43 55.35	. .
	20	Sun II, N. . . .	N.	1	22.9	25.7	27.4	33.9	36.0	38.2	44.9	46.6	49.3	46 36.10	+ 0.43	. .	−25.47	7 46 11.06	. .
	21	Polaris, S. P. . .	N.	4	35.0	51.0	48.5	. .	. .	. .	40.0	37.5	53.5	11 14.53	+21.60	. .	−25.69	1 11 10.44	+ 0.29
	22	Polaris, S. P. . .	F.	.	. .	. .	2.0	39.0	15.0	51.0	. .	. .	. .	11 14.78	+21.60	. .	−25.69	1 11 10.69	+ 0.54
	23	ε Serpentis . . .	N.	.	28.9	31.5	33.0	39.2	41.2	43.2	49.4	50.9	53.4	44 41.19	+ 0.59	−25.69	−25.79	15 44 15.99	− 0.11
	24	Saturn I, S. . .	N.	2	14.1	16.9	18.5	. .	. .	. .	35.5	37.3	40.0	50 27.05	+ 0.81	. .	−25.79	15 50 2.07	. .
	25	Saturn II, N. . .	N.	2	. .	. .	24.0	26.1	28.2	30.4	32.6	. .	. .	50 28.26	+ 0.81	. .	−25.79	15 50 3.28	. .
	26	β Scorpii	N.	2	0.0	2.9	4.0	11.0	13.2	15.4	21.8	23.5	26.0	55 13.16	+ 0.82	−25.85	−25.80	15 57 48.18	+ 0.10
	27	η Draconis . . .	N.	4	14.5	19.8	23.1	36.1	40.5	44.8	57.7	1.1	6.4	22 40.45	− 0.34	. .	−25.82	16 22 14.29	− 0.66
	28	15 Draconis . . .	N.	4	9.3	16.6	20.7	32.2	43.8	55.2	6.6	11.0	17.8	28 43.69	− 0.71	. .	−25.82	16 28 17.16	− 0.08
	29	η Herculis . . .	N.	4	34.1	37.3	39.3	47.2	49.9	52.4	0.3	2.3	5.6	38 49.82	+ 0.21	. .	−25.83	16 38 24.20	+ 0.05
	30	κ Ophiuchi, (R.) .	N.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	31	d Herculis . . .	N.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	32	α Herculis, (R.). .	N.	3	52.9	55.5	57.2	3.4	5.6	7.8	14.0	15.5	18.3	9 5.58	+ 0.20	. .	−25.85	17 8 39.93	+ 0.07
	33	b Ophiuchi . . .	N.	3	33.0	35.8	37.4	44.1	46.4	48.4	55.3	56.9	59.8	18 46.34	+ 0.87	−25.94	−25.85	17 18 21.36	+ 0.09
	34	α Ophiuchi, (R.) .	N.	3	3.8	6.3	7.9	14.1	16.4	18.4	24.7	26.2	28.8	29 16.29	+ 0.22	. .	−25.86	17 28 50.65	0.00
	35	ω Draconis . . .	N.	.	39.2	46.5	50.7	7.6	13.5	18.6	36.0	40.2	47.0	38 13.26	− 0.70	. .	−25.87	17 37 46.69	+ 0.05
	36	μ Herculis . . .	N.	3	31.4	34.3	36.1	43.0	45.4	47.6	54.5	56.2	59.2	41 45.30	+ 0.36	−25.87	−25.87	17 41 19.79	0.00
	37	γ Draconis . . .	N.	3	41.1	45.4	47.7	57.7	1.1	4.1	14.1	16.5	20.5	54 0.91	− 0.01	. .	−25.88	17 53 35.08	− 0.06
	38	μ Sagittarii . . .	N.	3	6.8	9.5	11.1	17.7	19.9	22.0	28.6	30.3	33.1	6 19.89	+ 0.84	−25.91	−25.89	18 5 54.84	0.00
	39	δ Ursæ Minoris . .	N.	2	. .	. .	33.7	9.7	43.0	18.0	53.3	. .	. .	15 43.66	− 7.99	. .	−25.92	18 51 9.75	− 0.30
17	40	Sun I, N. . . .	E.	.	10.0	12.6	14.2	20.5	22.8	25.3	31.7	33.5	36.5	48 23.01	+ 0.37	. .	−26.08	7 47 57.30	. .
	41	Sun II, S. . . .	E.	.	25.6	28.1	30.1	36.6	38.7	40.8	47.2	49.1	51.9	50 38.68	+ 0.37	. .	−26.08	7 50 12.97	. .
	42	ε Serpentis . . .	E.	.	29.1	31.6	33.1	39.2	41.3	43.2	49.4	51.0	53.6	44 41.28	+ 0.47	−25.67	−25.40	15 44 16.35	+ 0.26
	43	Saturn, Ring I, S.	E.	.	7.4	10.1	11.9	. .	. .	. .	28.9	30.5	33.2	50 20.33	+ 0.59	. .	−25.40	15 49 55.52	. .
	44	Saturn, Ring II, N.	E.	.	. .	. .	17.5	19.6	21.8	23.9	26.0	. .	. .	50 21.76	+ 0.59	. .	−25.40	15 49 56.95	. .
	45	δ Ophiuchi . . .	E.	.	40.2	43.0	44.7	50.6	52.9	54.7	0.9	2.4	4.9	7 52.70	+ 0.51	−25.38	−25.41	16 7 27.80	− 0.01
	46	τ Herculis . . .	E.	.	55.7	59.4	1.6	10.5	13.5	16.5	25.6	27.7	31.4	16 13.54	+ 0.15	. .	−25.42	16 15 48.27	+ 0.26
	47	α Scorpii	E.	.	32.7	35.5	37.3	44.0	46.1	48.3	55.3	57.1	59.9	21 46.24	+ 0.65	−25.31	−25.42	16 21 21.47	− 0.00
	48	ζ Ophiuchi . . .	E.	.	8.0	10.5	12.4	18.3	20.5	22.7	28.8	30.4	33.1	30 20.52	+ 0.55	−25.34	−25.43	16 29 55.64	− 0.14
	49	η Herculis . . .	E.	.	33.6	37.2	39.1	46.9	49.4	52.2	0.1	2.1	5.3	38 49.54	+ 0.24	. .	−25.44	16 38 24.34	+ 0.20
	50	κ Ophiuchi . . .	E.	.	39.8	42.5	44.0	50.2	52.3	54.3	0.5	2.2	4.6	51 52.27	+ 0.44	−25.39	−25.44	16 51 27.27	− 0.02

8.15. Counting clock one second wrong.
12.21.28. Bisections at sets B and D.
16. Counting clock probably two seconds slow.
35. Bisections at sets B and D.
42.43.44. Wire B used.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
	° '	r. ''	''	''	''							''	° ' ''		' ''	° ' ''	''
1	7 20	6.6	7.7	0.0	29.5	22	. .	089	. .	000	. .	9.7	7 24 19.9	. .	+ 7.1	58 30 48.2	− 0.2
2	52 42	6.6	7.9	29.0	0.3	25	. .	282	. .	146	. .	9.7	52 45 31.2	260	+ 1 11.4	103 53 3.8	− 2.2
3	23 32	9.1	9.1	1.0	1.4	27	. .	415	. .	286	. .	9.7	23 34 57.0	. .	+ 23.7	74 41 41.9	− 0.3
4	19 56	9.9	10.5	2.9	2.7	21	. .	840	. .	762	. .	9.7	20 0 20.5	249	+ 19.7	71 7 1.4	+ 1.0
5	17 8	8.8	9.0	1.1	1.0	22	650	650	. .	. .	. .	9.6	17 12 10.3	. .	+ 16.5	68 18 48.0	− 2.5
6	17 40	12.1	11.6	3.3	3.3	24	. .	. .	. .	193	208	9.6	17 43 41.5	180	+ 17.1	68 50 19.8	− 2.6
7																	
8	24 18	12.5	12.9	4.6	3.5	29	. .	140	. .	033	. .	9.6	24 20 27.1	243	+ 24.6	75 27 12.9	+ 0.9
9	62 52	5.3	7.8	29.1	28.0	27	. .	923	. .	741	. .	9.6	62 54 51.9	. .	+ 1 45.4	114 2 58.5	+ 0.6
10	346 26	10.6	11.7	3.5	2.5	24	. .	810	. .	750	. .	9.6	346 29 34.6	. .	− 13.0	37 35 42.8	+ 0.2
11	330 2	8.0	9.0	1.8	0.1	28	. .	270	. .	130	. .	9.6	330 4 45.1	. .	− 31.2	21 10 35.1	− 1.9
12	213 14	4.0	8.0	0.5	27.4	20	. .	023	274	110	. .	9.6	213 18 50.6	. .	+ 35.6	17 46 55.0	− 1.8
13	192 34	3.6	7.9	0.7	26.1	28	310	143	. .	150	068	9.6	192 36 46.7	. .	+ 12.1	38 29 22.4	− 1.7
14	59 54	6.5	8.8	0.0	29.0	25	. .	798	. .	750	. .	9.6	59 57 22.4	247	+ 1 35.5	111 5 19.1	+ 2.1
15																	
16																	
17	47 10	9.7	10.7	1.6	1.2	22	. .	. .	974	. .	840	9.3	47 14 3.2	200	+ 57.9	98 21 22.3	− 2.5
18	10 20	9.6	10.1	2.1	1.8	23	120	032	. .	881	898	9.3	10 24 2.8	. .	+ 10.0	61 30 34.0	− 1.2
19	17 50	9.5	9.3	1.5	1.5	25	044	952	. .	. .	. .	9.3	17 53 33.6	. .	+ 17.3	69 0 12.1	− 2.6
20	17 18	13.2	12.5	4.5	4.2	22	. .	. .	. .	630	598	9.3	17 22 4.4	. .	+ 16.8	68 28 42.4	− 2.6
21	307 28	7.1	9.3	1.1	1.2	27	500	503	617	. .	. .	9.3	307 30 52.1	184	− 1 9.3	358 36 4.0	− 1.0
22																	
23	33 58	9.5	9.0	0.6	28.9	29	962	930	. .	815	745	9.3	34 0 18.7	250	+ 36.6	85 7 16.5	+ 1.3
24	56 52	9.5	9.7	1.5	0.3	21	652	. .	. .	. .	665	9.3	56 56 23.2	. .	+ 1 23.1	108 4 7.5	− 0.8
25	56.52	9.5	9.7	1.5	0.3	22	. .	848	. .	760	. .	9.3	56 56 5.8	. .	+ 1 23.1	108 3 50.1	− 0.8
26	58 14	9.9	10.7	2.0	0.5	20	578	578	. .	489	422	9.3	58 18 40.1	. .	+ 1 27.6	109 26 28.9	+ 0.2
27	37 2	7.2	7.5	1.2	28.1	27	. .	735	. .	637	. .	9.3	337 4 53.6	256	− 23.0	28 10 51.8	+ 0.3
28	329 48	7.4	7.4	1.2	28.9	28	798	751	. .	670	725	9.3	329 50 36.8	. .	− 31.5	20 56 26.5	− 1.0
29	359 38	11.2	10.2	3.2	1.5	27	570	525	. .	417	400	9.3	359 40 53.6	. .	− 0.3	50 47 14.5	+ 0.8
30	150 40	8.0	8.6	0.9	27.0	31	188	. .	100	060	031	9.3	150 42 0.5	. .	− 30.5	80 24 51.2	− 0.9
31	5 6	10.1	10.1	2.6	0.6	32	616	520	. .	422	400	9.3	5 7 37.4	. .	− 4.9	66 14 3.5	− 0.3
32	155 36	7.5	7.7	0.3	27.0	25	110	049	. .	990	865	9.3	155 39 34.5	260	− 24.6	75 27 11.5	− 0.3
33	62 52	9.7	10.9	1.9	0.9	27	752	715	. .	612	581	9.3	64 54 50.7	. .	+ 1 45.9	114 2 57.8	− 0.1
34	153 44	10.0	10.7	3.1	29.9	29	015	012	. .	914	829	9.3	153 46 31.3	. .	− 26.8	77 20 16.7	+ 0.5
35	330 2	8.5	8.6	2.3	0.1	28	206	261	. .	198	241	9.3	330 4 43.5	. .	− 31.3	21 10 33.4	− 3.3
36	11 2	9.4	9.7	3.0	0.3	26	. .	250	179	075	. .	9.3	11 5 14.3	270	+ 10.6	62 11 46.1	− 0.8
37	347 20	11.1	10.7	3.8	2.4	26	245	185	. .	039	085	9.3	347 23 13.9	. .	− 12.2	38 29 22.9	− 0.9
38	59 54	8.1	9.0	0.3	29.1	25	846	755	. .	962	960	9.3	59 57 19.8	. .	+ 1 34.1	111 5 15.1	− 1.9
39	312 14	9.4	9.6	3.3	1.6	22	858	868	862	858	860	9.3	312 18 4.4	292	− 1 0.1	3 23 25.5	− 1.3
40	17 28	11.0	10.1	3.1	3.5	21	950	010	. .	. .	. .	9.6	17 32 18.6	. .	+ 17.1	68 38 56.9	− 2.6
41	18 0	11.0	9.5	2.5	4.3	23	. .	. .	. .	355	298	9.6	18 3 55.6	251	+ 17.7	69 10 34.5	− 2.6
42	33 58	8.7	7.8	1.0	28.8	20	. .	082	. .	072	. .	10.1	34 0 20.4	. .	+ 37.0	85 7 18.6	+ 3.5
43	56 54	3.8	5.2	27.2	23.7	20	. .	640	. .	. .	. .	10.1	56 56 17.2	. .	+ 1 24.0	108 4 2.4	− 0.8
44	56 54	3.8	5.2	27.2	23.7	21	. .	. .	. .	795	. .	10.1	56 55 56.7	. .	+ 1 23.9	108 3 41.8	− 0.8
45	42 12	7.2	8.3	1.0	29.2	31	. .	. .	. .	765	640	10.1	42 13 50.8	. .	+ 49.7	93 21 1.7	− 0.1
46	352 12	7.2	7.0	2.0	29.4	24	. .	050	. .	000	. .	10.1	352 15 49.7	290	− 7.4	43 22 3.5	+ 5.4
47	64 56	5.3	6.2	27.8	27.8	23	995	940	. .	955	892	10.1	64 59 52.5	. .	+ 1 56.8	116 8 10.5	+ 1.6
48	49 6	5.3	5.2	28.4	25.2	.	. .	. .	235	. .	. .	10.1	49 10 19.6	. .	+ 1 3.4	100 17 44.2	0.0
49	359 38	7.8	7.8	2.0	0.0	19	735	715	. .	815	795	10.1	359 42 54.4	. .	− 0.3	50 49 15.3	+ 1.8
50	29 14	8.5	8.2	0.2	29.5	23	. .	315	. .	225	. .	10.1	29 18 0.8	. .	+ 30.9	80 24 52.9	+ 0.8

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
19	29.920	98.8	90.2

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	' ''	' ''

DATE.	Number.		OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan'us Corrections.
1868.															m. s.	s.	s.	s.	h. m. s.	s.
July 17	1	*d*	Herculis	E.	.	56.5	59.6	1.5	8.6	11.1	13.7	21.1	22.8	26.1	57 11.22	+ 0.27	. .	−25.45	16 56 46.04	− 0.21
	2	ε	Ursæ Minoris	E.	.	. .	. .	37.6	53.2	7.5	22.3	37.7	. .	. .	0 7.73	− 2.59	. .	−25.45	16 59 39.69	− 0.22
	3	α	Herculis	E.	.	. .	. .	0.7	2.8	4.9	7.1	9.3	. .	. .	9 4.96	+ 0.41	−25.52	−25.46	17 8 39.91	+ 0.06
	4	δ	Ursæ Minoris	E.	.	. .	. .	30.0	6.0	40.0	14.0	49.0	. .	. .	15 39.90	− 4.94	. .	−25.50	18 15 9.46	− 0.36
	5		Polaris	T.	.	. .	. .	10.0	36.0	. .	22.0	45.0	. .	. .	11 58.52	−17.82	. .	−27.10	1 11 13.60	+ 2.09
	6	θ	Ceti	T.	3	40.7	43.4	44.8	51.0	53.2	55.3	1.5	3.1	5.5	17 53.17	+ 0.61	−27.07	−27.10	1 17 26.68	− 0.03
	7	α	Tauri	T.	.	35.3	38.1	39.5	46.0	48.1	50.2	56.8	58.3	1.0	28 48.14	+ 0.41	−27.22	−27.24	4 28 21.31	− 0.02
	8	β	Orionis	T.	.	26.0	28.5	30.2	36.2	38.3	40.4	46.6	48.1	50.7	8 38.33	+ 0.61	−27.24	−27.26	5 8 11.65	− 0.01
18	9		Sun I, N.	T.	.	12.4	15.0	16.8	23.3	25.7	27.7	34.3	35.8	38.6	52 25.51	+ 0.37	. .	−27.37	7 51 58.51	. .
	10		Sun II, S.	T.	.	27.7	30.6	32.2	38.8	41.0	43.2	49.6	51.2	54.2	54 40.94	+ 0.37	. .	−27.37	7 54 13.94	. .
	11		Polaris, S. P.	T.	.	. .	. .	10.0	47.0	. .	59.0	37.0	. .	. .	11 22.92	+18.91	. .	−27.58	1 11 14.25	+ 2.32
	12	α	Virginis	T.	.	30.1	32.8	34.3	40.6	42.6	44.7	50.9	52.4	55.0	18 42.60	+ 0.62	−27.51	−27.59	13 18 15.63	− 0.07
	13	ζ	Virginis	T.	.	14.0	16.5	18.0	24.1	26.3	28.3	34.4	35.8	38.5	28 26.21	+ 0.54	−27.54	−27.60	13 27 59.15	− 0.06
	14	η	Bootis	T.	.	39.1	41.9	43.5	49.9	52.1	54.2	0.7	2.4	5.1	48 52.10	+ 0.38	−27.53	−27.60	13 48 24.88	− 0.10
	15	ε	Ursæ Min., (E. P.)	T.	.	40.0	59.0	11.0	55.8	10.8	26.0	11.7	22.6	41.8	0 10.97	− 3.62	. .	−27.74	16 59 39.61	− 0.17
	16	α	Herculis, (R.)	T.	3	54.7	57.2	58.9	5.3	7.4	9.5	15.8	17.5	20.1	9 7.38	+ 0.16	. .	−27.75	17 8 39.79	− 0.06
	17	*b*	Ophiuchi	T.	.	34.9	37.8	39.3	46.1	48.3	50.5	57.1	58.8	1.6	18 48.27	+ 0.74	−27.76	−27.75	17 18 21.26	+ 0.01
	18	α	Ophiuchi, (R.)	T.	3	5.7	8.3	9.5	16.1	18.2	20.4	26.6	28.1	30.7	29 18.18	+ 0.18	. .	−27.76	17 28 50.60	− 0.04
	19	ω	Draconis, (R.)	T.	3	41.8	48.7	53.0	10.3	16.1	21.4	38.4	42.5	49.8	38 15.78	− 1.30	. .	−27.76	17 37 46.72	+ 0.18
	20	ψ	Draconis	T.	.	9.4	18.1	23.3	43.2	49.7	56.5	16.4	21.5	30.0	44 49.79	− 0.86	. .	−27.76	17 44 21.17	+ 0.39
	21	γ	Draconis, (R.)	T.	3	43.6	47.7	50.4	0.2	3.2	6.5	16.4	19.0	22.9	54 3.32	− 0.46	. .	−27.77	17 53 35.09	+ 0.04
	22	η	Serpentis	T.	.	46.2	48.7	50.2	56.5	58.5	0.5	6.7	8.3	10.7	14 58.48	+ 0.56	−27.86	−27.78	18 14 31.26	+ 0.09
	23	1	Aquilæ	T.	.	18.7	21.3	22.9	29.1	31.2	33.3	39.4	40.9	43.6	28 31.16	+ 0.61	−27.84	−27.79	18 28 3.98	+ 0.09
	24	51	Cephei, S. P.	T.	4	. .	. .	9.0	26.0	44.0	2.0	19.0	. .	. .	37 43.82	+ 9.85	. .	−27.80	6 37 25.87	+ 1.35
	25	σ	Sagittarii	T.	.	20.9	23.8	25.6	32.4	34.6	36.9	43.8	45.5	48.3	47 34.64	+ 0.77	−27.85	−27.80	18 47 7.61	+ 0.03
	26		Irene	T.	3	15.2	18.1	19.9	26.8	28.9	31.1	38.1	39.8	43.1	57 29.00	+ 0.78	. .	−27.81	18 57 1.97	. .
	27	δ	Aquilæ	T.	.	8.2	10.8	12.3	18.4	20.4	22.5	28.6	30.1	32.6	19 20.43	+ 0.52	−27.94	−27.82	19 18 53.13	+ 0.13
	28	ι	Draconis	T.	.	33.9	41.5	45.7	3.8	9.7	15.3	33.5	38.3	45.4	49 9.68	− 0.70	. .	−27.84	19 48 41.14	+ 0.33
	29		Hesperia	T.	3	16.8	19.3	20.9	. .	. .	. .	. .	. .	. .	4 29.15	+ 0.61	. .	−27.86	20 4 1.90	. .
	30	α²	Capricorni	T.	.	0.9	3.6	5.2	11.5	13.5	15.6	21.8	23.5	26.0	11 13.51	+ 0.64	−27.89	−27.86	20 10 46.29	+ 0.03
21	31		Sun II, S.	E.	.	. .	. .	10.4	12.4	14.4	16.5	18.7	. .	. .	6 14.48	+ 0.33	. .	. .	. .	. .
	32		Polaris	T.	.	14.5	56.5	1.0	49.0	12.0	. .	. .	. .	. .	11 35.08	−16.07	. .	− 0.55	1 11 18.46	+ 3.85
	33	β	Orionis	T.	.	59.3	1.9	3.4	9.6	11.6	13.7	20.0	21.5	24.1	8 11.68	+ 0.51	− 0.40	− 0.47	5 8 11.72	− 0.06
	34	β	Tauri	T.	.	43.5	46.4	48.2	55.2	57.5	59.8	6.8	8.5	11.4	17 57.48	+ 0.23	− 0.45	− 0.47	5 17 57.24	− 0.03
	35	δ	Orionis	T.	.	3.5	. .	. .	13.7	15.7	17.8	. .	. .	28.1	25 15.76	+ 0.45	− 0.26	− 0.46	5 25 15.75	− 0.22
	36	ε	Orionis	T.	.	18.6	21.3	. .	29.0	31.0	33.0	. .	40.8	43.6	29 31.00	+ 0.46	− 0.39	− 0.46	5 29 31.00	− 0.06
	37	α	Orionis	T.	.	49.4	51.9	53.4	59.6	1.6	3.8	9.9	11.5	14.2	48 1.70	+ 0.40	− 0.42	− 0.46	5 48 1.64	− 0.04
22	38		Sun I	T.	.	45.2	48.1	49.5	. .	. .	. .	. .	. .	. .	7 58.30	+ 0.30	. .	− 0.41	8 7 58.19	+67.43
	39	α	Ophiuchi	T.	.	38.0	40.6	42.1	48.4	50.5	52.6	58.7	0.4	2.9	28 50.47	+ 0.37	− 0.21	− 0.23	17 28 50.61	− 0.01
	40	ω	Draconis	T.	.	13.2	20.3	24.5	41.2	47.6	53.1	9.9	14.0	21.0	37 47.20	− 0.60	. .	− 0.23	17 37 46.37	− 0.03
	41	ψ	Draconis, (R.)	T.	3	. .	. .	. .	. .	28.8	36.3	49.4	54.4	3.0	44 22.70	− 1.36	. .	− 0.22	17 44 21.12	+ 0.51
	42	γ	Draconis	T.	.	15.6	19.5	22.1	32.1	35.3	38.6	48.2	50.7	55.1	53 35.24	− 0.06	. .	− 0.22	17 53 34.96	− 0.03
	43	μ	Sagittarii	T.	.	41.3	44.1	45.8	52.4	54.5	56.6	3.3	4.8	7.6	5 54.49	+ 0.61	− 0.29	− 0.21	18 5 54.89	+ 0.06
	44	δ	Ursæ Minoris	T.	.	. .	. .	6.0	41.5	. .	51.0	25.0	. .	. .	15 16.00	− 6.35	. .	− 0.21	18 15 9.44	+ 0.74
	45		Irene	T.	3	10.8	13.9	15.6	22.5	24.9	27.3	34.2	36.0	38.7	53 24.88	+ 0.67	. .	− 0.20	18 53 25.35	. .
	46	ζ	Aquilæ	T.	.	10.3	13.0	14.6	20.9	23.0	25.1	31.3	32.9	35.5	59 22.96	+ 0.36	− 0.29	− 0.20	18 59 23.12	+ 0.16
	47	δ	Aquilæ	T.	.	40.6	43.1	44.6	50.7	52.8	54.9	0.8	2.5	5.1	18 52.79	+ 0.43	− 0.19	− 0.19	19 18 53.04	+ 0.02
	48	κ	Aquilæ	T.	.	37.3	40.0	41.4	47.6	49.7	51.7	57.9	59.4	2.0	29 49.67	+ 0.51	− 0.30	− 0.19	19 29 49.99	+ 0.11
	49	α	Aquilæ, (R.)	T.	3	10.7	13.3	14.9	21.0	23.1	25.1	31.2	32.7	35.4	44 23.05	+ 0.22	. .	− 0.18	19 44 23.09	+ 0.02

19.20.28, 41. Bisections at sets B and D.
25. Observation largely in error. Wire B probably used.
26.29, 45. Wire A used.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	5 4	5.8	6.7	29.8	26.7	24	. .	852	. .	800	. .	10.1	5 7 39.0	. .	+ 5.0	56 14 5.2	+ 1.6
2	316 36	6.6	7.4	2.3	0.7	.	500	550	465	535	505	10.1	316 39 11.0	. .	− 51.9	7 44 40.3	− 1.1
3	24 18	9 21.5	21.0	13.6	10.5	30	. .	650	. .	500	. .	10.1	24 20 26.5	. .	+ 24.9	75 27 12.6	+ 0.9
4	312 14	9 28.9	29.0	24.8	22.1	23	565	635	530	650	630	10.1	312 18 3.6	. .	− 1 0.6	3 23 24.2	− 2.4
5																	
6	47 42	10 23.3	22.5	15.0	16.5	28	. .	914	. .	800	. .	10.4	47 44 20.3	383	+ 1 1.4	98 51 42.9	− 1.7
7	22 36	8.2	8.5	0.7	0.5	27	. .	816	. .	738	. .	10.6	22 38 52.0	295	+ 22.9	73 45 36.1	+ 0.4
8	47 10	26.3	26.5	18.9	19.1	24	. .	030	. .	890	. .	10.6	47 14 2.0	280	+ 59.0	98 21 22.2	− 2.3
9	17 40	10.9	10.3	2.9	3.8	27	. .	463	. .	. .	. .	10.7	17 42 55.8	. .	+ 17.1	68 49 34.1	− 2.6
10	18 12	4.0	2.9	25.3	26.2	29	. .	. .	. .	610	600	10.7	18 14 27.9	208	+ 17.7	69 21 6.8	− 2.7
11	307 28	10.4	9.5	3.5	4.4	27	408	523	. .	492	441	10.6	307 30 54.0	188	− 1 9.5	358 36 5.7	+ 0.4
12	49 18	9.8	10.5	2.4	2.7	27	. .	318	. .	225	. .	10.6	49 20 57.7	188	+ 1 2.2	100 28 21.1	− 0.3
13	38 44	8.0	8.5	0.6	0.5	22	. .	630	. .	732	. .	10.6	38 48 10.0	206	+ 43.1	89 55 14.3	+ 2.1
14	19 46	11.0	11.5	4.1	4.0	24	. .	818	. .	663	. .	10.6	19 49 35.3	220	+ 19.5	70 56 16.0	+ 0.3
15	316 36	10.6	10.8	5.6	4.7	26	. .	260	205	174	. .	10.6	316 39 12.5	289	− 51.6	7 44 42.1	+ 0.8
16	155 36	6.0	6.5	0.0	27.4	25	038	. .	. .	020	938	10.6	155 39 36.0	. .	− 24.7	75 26 9.9	− 1.6
17	62 52	4.8	6.3	29.0	28.0	28	. .	060	. .	918	. .	10.6	62 54 51.0	288	+ 1 46 4	114 2 58.6	+ 0.6
18	153 44	4.7	5.5	28.6	26.4	29	376	244	. .	140	231	10.6	153 46 32.5	. .	− 27.0	77 19 15.7	− 0.2
19	209 52	3.8	6.5	0.4	27.0	26	232	286	. .	126	128	10.6	209 55 18.6	. .	+ 31.5	21 10 31.1	− 5.1
20	326 38	8.8	8.4	3.5	2.7	26	. .	400	. .	429	. .	10.6	326 41 11.1	292	− 36.0	17 46 56.9	+ 0.9
21	192 34	3.6	6.3	29.6	25.7	28	300	330	. .	080	990	10.6	192 36 48.3	. .	+ 12.3	38 29 20.6	− 2.7
22	41 44	7.3	7.7	0.9	29.5	21	. .	589	. .	490	. .	10.6	41 48 27.9	297	+ 49.0	92 55 38.1	− 2.9
23	47 8	9.5	10.5	3.0	2.6	21	. .	308	. .	249	. .	10.6	47 12 29.3	. .	+ 59.2	98 19 49.7	− 1.1
24	306 6	6.4	6.7	1.7	1.3	26	763	744	763	762	720	10.6	306 9 8.2	300	− 1 14.9	357 14 14.5	− 0.4
25	65 18	6.0	7.3	0.5	29.5	25	. .	472	. .	321	. .	10.6	65 21 29.4	300	+ 1 58.9	116 29 49.5	
26	66 56	6.2	7.7	29.5	28.7	29	523	578	. .	550	512	10.6	67 0 58.7	303	+ 2 8.5	118 9 28.4	− 4.9
27	35 58	6.1	5.5	28.7	28.4	25	. .	463	. .	300	. .	10.6	35 51 31.0	304	+ 39.7	86 58 31.9	+ 0.2
28	328 54	5.1	5.3	0.3	28.6	22	. .	974	. .	038	. .	10.6	328 58 7.3	. .	− 33.0	20 3 55.5	− 0.5
29	47 56	9.0	9.3	2.3	0.8	29	890	710	. .	284	080	10.6	48 0 57.2	. .	+ 1 1.0	99 8 19.4	− 2.7
30	51 46	6.5	7.5	0.3	29.0	33	916	030	. .	790	792	10.6	51 47 19.3	312	+ 1 9.7	102 54 50.2	− 0.7
31	18 46	9.0	8.8	2.6	1.3	29	. .	. .	. .	200	300	10.6	18 48 27.4	200	+ 18.3	69 55 6.9	− 2.8
32																	
33	47 10	0.4	0.3	24.2	23.8	23	. .	740	. .	604	. .	10.6	47 14 2.3	263	+ 58.7	98 21 22.2	− 1.6
34	10 20	5.6	4.9	29.4	28.1	23	. .	339	. .	256	. .	10.6	10 24 3.1	263	+ 10.0	61 30 34.3	− 0.8
35	39 14	3.0	2.4	25.5	25.1	28	. .	050	. .	920	. .	10.6	39 16 54.2	. .	+ 41.5	90 23 59.9	− 1.5
36	40 6	5.5	4.6	28.9	28.0	22	. .	. .	. .	400	541	10.6	40 10 14.8	263	+ 45.9	91 17 21.9	− 0.6
37	31 26	2.6	2.0	24.3	26.0	22	363	266	. .	143	135	10.6	31 30 22.6	259	+ 33.3	82 37 17.1	− 1.1
38																	
39	26 10	4.9	3.1	27.0	25.5	25	. .	772	. .	670	. .	10.4	26 13 27.6	347	+ 27.3	77 20 16.1	+ 0.7
40	330 2	2.4	1.5	26.8	25.3	28	. .	816	. .	670	. .	10.4	330 4 43.3	. .	− 32.0	21 10 32.5	− 2.7
41	213 14	1.5	2.4	26.8	24.4	20	. .	. .	310	260	210	10.4	213 18 52.0	. .	+ 36.5	17 46 52.7	− 2.3
42	347 20	13.5	11.5	6.5	6.1	26	. .	208	. .	052	. .	10.4	547 23 12.4	. .	− 12.4	38 29 21.2	− 1.1
43	59 54	3.1	1.7	24.8	25.1	26	. .	460	. .	343	. .	10.4	59 57 18.5	363	+ 1 35.8	111 5 15.5	− 1.5
44	312 14	10.8	9.0	4.1	4.0	22	980	870	820	840	908	10.4	312 18 4.2	. .	− 1 1.1	3 23 24.3	− 1.0
45	67 10	13.5	13.1	5.8	6.5	31	058	064	. .	880	853	10.4	67 14 30.0	363	+ 2 11.7	118 23 2.9	− 5.0
46	25 10	10.4	9.2	2.7	2.1	28	. .	088	. .	982	. .	10.4	25 12 46.2	. .	+ 26.2	76 19 33.6	− 1.1
47	35 58	8.5	7.3	0.5	1.4	25	. .	395	. .	290	. .	10.4	36 1 29.1	. .	+ 40.4	87 8 30.7	− 0.5
48	46 8	10.2	9.3	2.6	2.4	25	. .	008	. .	940	. .	10.4	46 11 32.9	357	+ 57.9	97 18 52.0	− 0.5
49	149 36	9.5	9.3	3.5	1.5	29	336	340	. .	220	168	10.4	149 38 27.4	. .	− 32.5	81 28 26.3	+ 0.4

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

MOON'S—

No.	Parallax.	Semi-diam.
	′ ″	′ ″

For summary of the elements of reduction see page 3.

DATE.	Number.	OBJECT.	Observer.	Weight.	I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
														m. s.	s.	s.	s.		s.
1868. July 22	1	Hesperia . . .	T.	3	43.8	46.3	48.1	54.2	56.2	58.5	4.4	6.0	8.7	0 56.24	+ 0.52	. .	− 0.18	20 0 56.58	. .
	2	α² Capricorni . . .	T.	.	. .	41.9	44.0	46.2	48.2	50.4	54.4	56.1	58.6	10 46.12	+ 0.54	− 0.36	− 0.18	20 10 46.48	+ 0.15
	3	Calypso . . .	T.	2	57.8	0.5	2.4	. .	. .	. .	. .	. .	23.4	24 10.68	+ 0.57	. .	− 0.17	20 24 11.08	. .
	4	Venus II, N. . .	N.	3.1	30.6	33.1	34.7	41.0	43.1	45.2	51.5	53.1	55.7	23 43.11	+ 0.32	. .	+ 0.09	7 23 43.52	− 1.98
23	5	Sun I, S. . . .	N.	.	43.1	45.9	47.5	54.1	56.2	58.4	4.8	6.5	9.3	11 56.20	+ 0.29	. .	+ 0.11	8 11 56.60	. .
	6	Sun II, N. . . .	N.	.	57.6	0.5	2.0	8.6	10.7	12.8	19.5	21.0	23.6	14 10.70	+ 0.29	. .	+ 0.11	8 14 11.10	. .
	7	Moon I . . .	N.	2	. .	. .	34.2	36.3	38.5	40.5	42.7	. .	. .	49 38.44	+ 0.39	. .	+ 0.18	11 49 39.01	+ 67.91
	8	Polaris, S. P. . .	N.	2	. .	. .	50.0	28.0	1.5	. .	15.0	29.0	25.0	11 2.53	+ 13.82	. .	+ 0.21	1 11 16.56	+ 0.82
	9	α Virginis . . .	N.	3	2.4	4.9	6.5	12.8	14.9	16.9	23.1	24.7	27.4	18 14.84	+ 0.48	+ 0.32	+ 0.21	13 18 15.53	− 0.11
	10	α Serpentis . . .	N.	4	34.7	37.3	38.8	45.0	47.1	49.1	55.3	56.9	59.4	37 47.07	+ 0.37	+ 0.28	+ 0.25	15 37 47.69	− 0.03
	11	ε Serpentis . . .	N.	4	3.1	5.6	7.1	13.2	15.3	17.4	23.5	25.1	27.7	44 15.33	+ 0.39	+ 0.30	+ 0.25	15 44 15.97	− 0.06
	12	Saturn I, S. . .	N.	3	. .	. .	19.9	22.1	24.2	26.4	28.7	. .	. .	49 24.26	+ 0.53	. .	+ 0.26	15 49 25.05	. .
	13	Saturn II, N. . .	N.	3	12.5	15.2	16.9	. .	. .	. .	34.0	35.6	38.3	49 25.42	+ 0.53	. .	+ 0.26	15 49 26.21	. .
	14	η Draconis . . .	N.	1.2	. .	. .	. .	13.8	18.1	22.6	31.1	34.6	39.6	22 13.88	− 0.22	. .	+ 0.27	16 22 13.93	− 0.80
	15	ζ Ophiuchi . . .	F.	.	42.6	45.1	46.6	52.9	54.7	56.9	3.2	4.7	7.2	29 54.88	+ 0.48	+ 0.33	+ 0.27	16 29 55.63	− 0.11
	16	Groom. 966, S. P. .	N.	2	. .	. .	18.5	10.7	3.0	55.2	47.1	. .	. .	22 2.90	+ 1.57	. .	+ 0.29	5 22 4.76	− 0.41
	17	β Draconis . . .	N.	2	8.9	13.1	15.7	25.8	28.9	32.2	42.2	44.8	49.2	27 28.98	− 0.03	. .	+ 0.29	17 27 29.24	+ 0.08
	18	ω Draconis, (R.) .	N.	4	13.2	24.4	35.8	41.3	47.1	52.9	58.4	9.6	20.6	37 47.03	− 0.88	. .	+ 0.30	17 37 46.48	+ 0.12
	19	ψ Draconis, (R.) .	N.	3	. .	. .	8.2	14.8	21.6	28.0	34.7	. .	. .	44 21.46	− 1.10	. .	+ 0.30	17 44 20.66	+ 0.06
	20	22 Camelopard., S. P.	N.	2	50.2	43.0	38.7	21.3	15.5	9.9	52.5	48.0	40.9	4 15.56	+ 1.27	. .	+ 0.30	6 4 17.13	+ 0.28
	21	η Serpentis . . .	N.	2	18.4	20.9	22.4	28.5	30.5	32.6	38.6	40.2	42.8	14 30.54	+ 0.43	+ 0.20	+ 0.31	18 14 31.28	+ 0.12
	22	δ Ursæ Minoris . .	N.	3	. .	. .	. .	. .	. .	23.0	30.0	57.5	40.7	15 13.63	− 5.12	. .	+ 0.31	18 15 8.82	+ 0.33
	23	β Lyræ	N.	3	59.8	2.8	4.6	12.0	14.5	16.8	24.0	25.8	29.0	45 14.37	+ 0.19	+ 0.30	+ 0.32	18 45 14.88	+ 0.04
	24	γ Aquilæ	N.	3	48.4	51.2	52.6	58.8	1.0	2.9	9.2	10.8	13.3	40 0.91	+ 0.36	+ 0.28	+ 0.34	19 40 1.61	+ 0.07
25	25	Polaris, S. P. . .	T.	.	25.0	42.0	41.0	31.0	. .	40.0	. .	. .	. .	11 5.38	+ 13.42	. .	+ 1.09	1 11 19.86	+ 2.51
	26	ζ Virginis . . .	T.	3	45.3	48.0	49.4	55.6	57.6	59.7	5.6	7.3	9.8	27 57.59	+ 0.39	+ 1.15	+ 1.10	13 27 59.08	− 0.05
	27	Moon I, N. . .	T.	3	43.2	45.8	47.5	53.6	55.9	58.0	4.3	5.8	8.4	38 55.83	+ 0.43	. .	+ 1.10	13 38 57.36	+ 65.01
	28	η Bootis	T.	2	10.4	13.0	14.8	21.2	23.4	25.5	. .	. .	. .	48 23.35	+ 0.28	+ 1.23	+ 1.10	13 48 24.73	− 0.16
	29	α Bootis	T.	3	25.0	27.7	29.5	35.9	38.1	40.3	46.7	48.3	51.1	9 38.07	+ 0.27	+ 1.09	+ 1.11	14 9 39.45	+ 0.03
	30	1 Aquilæ	T.	.	50.1	52.5	54.2	0.3	2.4	4.3	10.6	12.3	14.7	28 2.38	+ 0.44	+ 1.11	+ 1.19	18 28 4.01	+ 0.12
	31	51 Cephei, S. P. . .	T.	.	. .	. .	45.0	2.0	18.5	36.7	54.3	. .	. .	37 19.46	+ 6.98	. .	+ 1.19	6 37 27.63	+ 1.22
	32	σ Sagittarii . . .	T.	.	52.2	55.0	56.6	3.6	5.9	8.2	14.9	16.7	19.5	47 5.84	+ 0.57	+ 1.17	+ 1.19	18 47 7.60	0.00
	33	ζ Aquilæ, (R.) . .	T.	4	9.1	11.6	13.2	19.6	21.7	23.7	30.1	31.7	34.4	59 21.68	+ 0.16	. .	+ 1.19	18 59 23.03	+ 0.07
	34	d Sagittarii . . .	T.	3	42.7	45.4	47.1	53.5	55.7	57.8	4.2	5.9	8.6	9 55.66	+ 0.51	+ 1.13	+ 1.20	19 9 57.37	− 0.01
	35	δ Aquilæ, (R.) . .	T.	3	39.1	42.1	43.4	49.6	51.7	53.7	. .	. .	. .	18 51.60	+ 0.25	. .	+ 1.20	19 18 53.05	+ 0.02
	36	κ Aquilæ . . .	T.	.	35.9	38.5	40.2	46.3	48.3	50.4	56.5	58.1	0.5	29 48.30	+ 0.44	+ 1.15	+ 1.20	19 29 49.94	+ 0.05
	37	γ Aquilæ . . .	T.	3	47.5	50.1	51.7	58.0	0.0	2.1	8.3	9.8	12.5	40 0.00	+ 0.33	+ 1.23	+ 1.21	19 40 1.54	− 0.01
	38	α Aquilæ . . .	T.	.	9.2	11.8	13.4	19.6	21.6	23.7	29.8	31.4	34.0	44 21.61	+ 0.35	+ 1.12	+ 1.21	19 44 23.17	+ 0.10
	39	β Aquilæ . . .	T.	3	38.4	41.0	42.6	48.6	50.7	52.7	59.0	0.5	3.1	48 50.72	+ 0.36	+ 1.17	+ 1.21	19 48 52.29	+ 0.04
	40	Hesperia . . .	T.	2	23.6	25.9	. .	. .	. .	. .	. .	. .	. .	58 35.86	+ 0.45	. .	+ 1.21	19 58 37.52	. .
	41	α² Capricorni . .	T.	3	32.1	34.7	36.3	42.5	44.6	46.7	53.1	54.6	57.3	10 44.65	+ 0.47	+ 1.21	+ 1.22	20 10 46.34	+ 0.01
	42	Calypso . . .	T.	.	. .	18.6	20.7	. .	. .	. .	37.3	38.9	41.4	21 28.82	+ 0.50	. .	+ 1.22	20 21 30.54	. .
28	43	Sun, S.	E.		. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	44	Sun II, N. . . .	E.	.	36.9	39.5	41.3	47.6	49.9	52.0	58.4	0.1	2.9	49.84	+ 0.17	. .	+ 3.57	8 33 53.58	− 66.93
	45	δ Ophiuchi . . .	E.	.	11.5	14.0	15.4	21.6	23.6	25.7	32.1	33.5	36.1	7 23.72	+ 0.22	+ 3.78	+ 3.68	16 7 27.62	− 0.08
	46	Moon I, N. . .	E.	4	52.7	55.5	57.0	3.5	5.7	7.9	14.4	16.4	19.0	17 5.79	+ 0.26	. .	+ 3.68	16 17 9.73	+ 65.56
	47	ζ Ophiuchi . . .	E.	.	39.3	41.9	43.5	49.6	51.7	53.7	0.1	1.5	4.3	29 51.73	+ 0.24	+ 3.67	+ 3.68	16 29 55.65	− 0.04
	48	κ Ophiuchi . . .	E.	.	. .	. .	19.3	21.1	23.3	25.4	27.4	. .	. .	51 23.32	+ 0.20	+ 3.71	+ 3.68	16 51 27.20	0.00
	49	d Herculis . . .	E.	.	27.4	30.6	32.4	39.8	42.1	44.5	51.9	53.6	56.8	56 42.12	+ 0.14	. .	+ 3.68	16 56 46.04	+ 0.35

1.3.40.42. Wire A used.
15. Bisections at E_2 and VII.
16.18.22.27. Bisections at sets B and D.
22. Double weight for last 2 wires.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° '	r. "	"	"	"							"	° ' "		' "	° ' "	"
1	48 8	9.8	9.5	2.0	2.4	30	758	654	. .	570	510	10.4	48 12 40.7	357	+ 1 2.0	99 20 3.9	− 2.7
2	51 46	5.8	5.0	28.3	28.8	26	. .	128	. .	092	. .	10.4	51 49 19.7	. .	+ 1 10.5	102 56 51.4	+ 0.8
3	55 18	10.8	9.5	3.0	2.7	31	138	950	. .	. .	. .	10.4	55 22 34.4	357	+ 1 20.3	106 30 15.9	− 3.6
4	23 12	10 5.1	4.6	28.5	28.4	26	360	382	. .	. .	. .	11.4	23 15 18.7	230	+ 23.2	74 22 3.1	−11.7
5	19 10	14.5	12.8	6.0	5.8	27	990	940	. .	. .	. .	11.4	19 12 46.1	. .	+ 18.7	70 19 26.0	− 2.8
6	18 38	11.5	9.2	3.8	4.2	26	. .	. .	105	030	921	11.4	18 41 16.2	213	+ 18.2	69 47 55.6	− 2.8
7																	
8	307 28	3.2	3.5	27.4	28.7	27	. .	. .	865	. .	. .	10.8	307 30 54.6	192	− 1 9.6	358 36 6.2	+ 0.1
9	49 18	8.1	8.1	1.3	0.5	27	. .	. .	490	. .	. .	10.8	49 20 56.5	. .	+ 1 2.3	100 28 20.0	− 1.0
10	31 58	5.8	4.5	27.0	26.2	22	. .	172	. .	078	. .	10,6	32 2 22.0	261	+ 34.0	83 9 17.2	+ 0.7
11	33 56	6.4	5.4	28.1	27.0	22	. .	. .	467	. .	. .	10.6	34 0 15.9	. .	+ 36.7	85 7 13.8	− 0.8
12	56 52	6.2	5.3	28.0	27.4	23	305	. .	. .	. .	062	10.6	56 56 4.7	. .	+ 1 23.4	108 3 49.3	− 0.8
13	56 52	6.2	5.3	28.0	27.4	24	. .	365	. .	258	. .	10.6	56 55 47.6	. .	+ 1 23.4	108 3 32.2	− 0.8
14	337 2	8.5	7.1	3.0	0.3	27	. .	. .	. .	720	795	10.6	337 4 51.9	273	− 23.0	28 10 50.1	− 0.2
15	49 6	7.2	7.0	29.8	28.4	21	. .	. .	. .	875	982	10.6	49 10 21.5	. .	+ 1 3.1	100 17 45.8	+ 1.9
16	293 48	4.1	3.6	28.0	27.2	22	. .	068	135	050	. .	10.6	293 52 22.5	. .	− 2 2.7	344 56 41.0	− 0.1
17	346 26	4.8	3.6	27.5	26.0	25	. .	. .	486	405	406	10.6	346 29 31.6	287	− 13.2	37 35 39.6	− 1.1
18	209 52	9 29.5	1.2	25.7	20.8	26	595	574	. .	534	506	10.6	209 55 18.2	. .	+ 31.5	21 10 31.5	− 3.4
19	213 14	4.2	6.0	0.0	26.8	20	. .	. .	114	. .	. .	10.6	213 18 51.7	. .	+ 36.0	17 46 53.5	− 1.2
20	288 14	3.4	3.3	28.5	26.9	24	466	512	. .	445	372	10.6	288 17 45.4	290	− 2 43.7	339 21 22.9	− 0.8
21	41 46	4.5	3.7	28.1	26.6	29	. .	. .	675	. .	. .	10.6	41 48 26.7	. .	+ 48.9	92 55 36.8	− 1.8
22	312 14	5.9	4.6	29.8	28.5	23	. .	. .	. .	338	420	10.6	312 18 2.1	. .	− 1 0.1	3 23 23.2	− 1.9
23	5 38	8.8	7.7	2.3	0.4	28	914	887	. .	715	764	10.6	5 40 36.0	297	+ 5.5	56 47 2.7	− 1.7
24	28 32	8.5	6.6	0.4	29.6	26	315	291	. .	202	156	10.6	28 35 16.2	299	+ 29.9	79 42 7.3	− 0.1
25																	
26	38 44	11.2	10.5	3.5	4.4	22	. .	640	. .	658	. . .	11.4	38 48 8.2	248	+ 43.6	89 55 13.0	+ 1.3
27	44 48	12.6	11.9	4.6	6.7	26	. .	979	768	515	. .	11.4	44 51 3.9	248	+ 53.9	95 58 19.0	
28																	
29	18 58	10.6	9.8	2.3	3.4	27	. .	393	. .	268	. .	11.4	19 0 57.7	242	+ 18.6	70 7 37.5	+ 1.0
30	47 10	13.3	13.8	7.0	5.7	29	. .	010	. .	908	. .	11.4	47 12 29.1	327	+ 59.6	98 19 49.9	− 0.4
31	306 6	9.5	9.5	4.5	4.7	26	. .	688	770	686	. .	11.4	306 9 6.4	. .	− 1 15.4	357 14 12.2	− 0.7
32	65 16	13.1	13.5	7.1	5.7	27	. .	225	. .	105	. .	11.4	65 18 56.6	332	+ 1 59.5	116 27 17.3	+ 0.7
33	154 44	7.7	7.7	1.8	28.8	25	461	501	. .	370	360	11.4	154 47 13.8	. .	− 26.0	76 19 33.4	− 0.7
34	58 0	12.3	12.5	5.7	4.6	26	. .	778	. .	700	. .	11.4	58 3 4.2	338	+ 1 28.5	109 10 53.9	− 0.5
35	143 56	10.5	11.7	4.5	2.0	29	. .	072	. .	001	. .	11.4	143 58 30.7	. .	− 40.2	87 8 30.7	− 0.1
36	46 8	13.0	13.5	6.8	5.6	24	. .	780	. .	740	. .	11.4	46 11 33.6	338	+ 57.6	97 18 52.4	+ 0.2
37	28 32	12.6	12.2	5.8	4.5	26	. .	030	. .	915	. .	11.4	28 35 16.1	. .	+ 30.2	79 42 7.5	+ 0.5
38	30 18	10.5	11.0	3.8	2.5	25	. .	093	. .	948	. .	11.4	30 21 32.5	. .	+ 32.4	81 28 26.1	+ 0.6
39	32 44	8.5	8.5	0.9	0.7	23	. .	248	. .	060	. .	11.4	32 48 3.3	. .	+ 35.7	83 55 0.2	+ 0.2
40	48 16	14.5	14.0	7.6	6.3	23	. .	190	. .	940	. .	11.4	48 22 32.7	345	+ 1 2.3	99 29 56.2	− 2.7
41	51 46	10.7	11.3	4.4	3.2	25	. .	833	. .	864	. .	11.4	51 49 19.3	346	+ 1 10.3	102 56 50.8	+ 0.3
42	55 32	14.7	14.3	7.4	6.8	33	. .	. .	. .	730	. .	11.4	55 35 48.6	345	+ 1 20.8	106 43 30.6	− 3.6
43	20 16	10 2.3	1.5	26.3	25.6	.	. .	160	. .	. .	. .	12.3	20 19 25.2	. .	+ 20.4	71 26 6.8	− 3.0
44	19 44	10 0.3	29.3	24.4	23.7	24	. .	. .	. .	330	475	12.3	19 47 51.8	305	+ 19.7	70 54 32.7	− 2.9
45	42 12	8.5	8.6	3.5	2.5	31	. .	905	. .	810	. .	12.0	42 13 49.5	. .	+ 50.5	93 21 1.2	0.0
46	55 28	9 27.8	28.5	22.0	18.5	29	555	. .	485	. .	460	12.0	55 30 37.2	. .	+ 1 20.9	106 38 19.3	
47	49 6	10 10.1	8.7	3.8	2.5	22	070	940	. .	. .	. .	12.0	49 10 19.7	. .	+ 1 4.5	100 17 45.4	+ 1.7
48	29 14	9.8	8.8	3.8	1.8	23	. .	. .	. .	343	283	12.0	29 17 59.1	380	+ 31.3	80 24 51.6	+ 0.9
49	5 4	9.1	6.5	2.3	0.7	24	. .	935	. .	875	. .	12.0	5 7 37.3	. .	+ 5.0	56 14 3.5	+ 1.8

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

MOON'S—

No.	Parallax.	Semi-diam.
	' "	"
27	− 40 40.6	+ 15 48.8
46	− 45 41.7	+ 15 11.2

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellaneous Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
July 28	1	ε Ursæ Minoris	E.	.	.	.	6.0	20.4	35.3	49.7	4.5	.	.	59 35.25	− 0.61	. .	+ 3.68	16 59 37.32	− 1.10
	2	α Herculis	E.	.	23.4	26.1	27.6	33.9	35.9	38.0	44.4	46.0	48.5	8 35.98	+ 0.18	+ 3.61	+ 3.69	17 8 39.85	+ 0.08
	3	ψ¹ Draconis	E.	.	.	.	3.5	10.1	16.6	23.5	30.1	.	.	44 16.70	− 0.07	. .	+ 3.70	17 44 20.39	+ 0.06
	4	γ Draconis	E.	.	11.3	15.5	17.6	27.7	30.9	34.2	44.0	46.6	50.6	53 30.93	+ 0.09	. .	+ 3.70	17 52 34.72	− 0.15
	5	δ Ursæ Minoris	E.	.	37.5	21.0	45.0	.	.	.	22.0	49.0	31.5	15 4.81	− 1.02	. .	+ 3.70	18 15 7.49	+ 0.14
	6		E.	.	.	.	55.0	30.0	6.0	40.0	15.5	.	.						
29	7	ε Ursæ Minoris	T.	.	5.0	24.7	35.8	21.8	36.4	51.8	37.0	48.7	7.8	59 36.47	− 1.24	. .	+ 2.79	16 59 38.02	− 0.30
	8	Moon I, N.	T.	3	47.1	50.0	51.6	58.1	0.3	2.5	9.2	10.8	13.6	10 0.36	+ 0.35	. .	+ 2.80	17 10 3.51	+65.60
	9	b Ophiuchi	T.	.	4.5	7.4	9.2	15.4	18.0	20.2	27.0	28.5	31.3	18 17.99	+ 0.38	+ 2.82	+ 2.80	17 18 21.17	− 0.02
	10	α Ophiuchi	T.	.	35.0	37.7	39.3	45.4	47.5	49.6	56.0	57.5	0.1	28 47.57	+ 0.24	+ 2.77	+ 2.81	17 28 50.62	+ 0.05
	11	μ Herculis	T.	3	2.9	5.7	7.4	14.3	16.7	19.1	26.0	27.6	30.5	41 16.69	+ 0.18	+ 2.81	+ 2.81	17 41 19.68	0.00
	12	μ Sagittarii	T.	3	38.5	41.2	42.9	49.4	51.6	53.8	0.3	1.9	4.7	5 51.59	+ 0.36	+ 2.85	+ 2.81	18 5 54.76	− 0.06
	13	δ Ursæ Minoris	T.	.	.	.	57.0	33.0	7.8	42.0	16.0	.	.	15 7.28	− 2.20	. .	+ 2.82	18 15 7.84	+ 0.77
	14	α Lyræ	T.	.	12.0	15.3	17.2	25.0	27.5	30.2	38.1	40.1	43.4	32 27.64	+ 0.13	+ 2.79	+ 2.82	18 32 30.59	+ 0.03
30	15	η Herculis	F.	.	.	.	.	.	.	.	.	.	.	. .	. .	. .	. .	. . .	. .
	16	κ Ophiuchi, (R.)	F.	.	12.3	14.9	16.6	22.6	24.7	26.8	33.0	34.5	37.2	51 24.73	+ 0.16	. .	+ 3.38	16 51 28.27	+ 1.00
	17	ε Ursæ Minoris	F.	.	.	.	.	.	.	3.0	15.5	25.0	8.0	0 35.52	− 0.83	. .	+ 3.39	38.15	− 0.01
	18	b Ophiuchi	F.	.	4.1	6.9	8.6	15.2	17.5	19.8	26.3	28.1	30.9	18 17.49	+ 0.26	. .	+ 3.39	17 18 21.14	− 0.04
	19	ω Draconis	F.	.	.	.	38.1	43.8	49.5	55.0	6.5	10.8	17.8	37 43.87	− 0.11	. .	+ 3.40	17 37 47.16	+ 1.03
	20	μ Sagittarii	F.	.	38.1	40.8	42.4	48.9	51.1	53.4	59.9	1.6	4.2	5 51.16	+ 0.25	+ 3.38	+ 3.41	18 5 54.82	+ 0.01
	21	δ Ursæ Minoris	F.	.	.	.	56.5	30.0	5.0	40.0	16.0	.	.	15 5.66	− 1.48	. .	+ 3.42	18 15 7.60	+ 0.53
	22	1 Aquilæ	F.	.	47.9	50.5	52.1	58.3	0.2	2.3	8.5	10.1	12.6	28 0.28	+ 0.21	+ 3.43	+ 3.42	18 28 3.91	+ 0.03
	23	51 Cephei, S. P.	F.	.	35.5	43.0	13.0	43.0	13.0	.	.	.	.	. . .	+ 1.85	. .	+ 3.43	30.72	+ 3.04
31*	24	ψ¹ Draconis	E.	.	.	.	2.2	9.1	15.8	22.2	28.7	.	.	44 15.60	+ 0.41	. .	+ 4.22	17 44 20.23	+ 0.06
	25	γ Draconis	E.	.	10.7	15.0	17.4	27.3	30.5	33.7	43.6	46.1	50.0	53 30.48	+ 0.19	. .	+ 4.22	17 53 34.89	+ 0.05
	26	μ Sagittarii	E.	.	37.3	40.0	41.7	48.3	50.4	52.5	59.2	0.9	3.5	5 50.42	+ 0.05	+ 4.32	+ 4.23	18 5 54.70	− 0.11
	27	δ Ursæ Minoris	E.	.	.	.	52.0	25.0	0.0	35.5	9.0	.	.	15 0.42	+ 2.09	. .	+ 4.23	18 15 6.74	+ 0.28
	28	51 Cephei, S. P.	E.	.	.	.	53.5	9.0	25.5	.	.	.	.	37 27.33	− 2.54	. .	+ 4.24	6 37 29.03	+ 0.85
	29	β Lyræ	E.	.	.	.	.	.	.	.	.	.	.	. .	. .	. .	. .	. . .	. .
	30	Moon I, N.	E.	.	25.6	30.0	34.6	36.7	38.9	41.2	43.4	48.0	52.5	55 38.90	+ 0.06	. .	+ 4.25	18 55 43.30	+65.13
	31	δ Aquilæ	E.	.	36.6	39.2	40.6	46.9	48.9	50.9	57.1	58.7	1.1	18 48.89	+ 0.08	+ 4.08	+ 4.26	19 18 53.23	+ 0.19
Aug. 5	32	Sun I, S.	T.	.	22.0	24.6	26.3	32.7	34.9	37.0	43.0	44.7	47.6	2 34.76	+ 0.23	. .	+ 5.83	9 2 40.82	. .
	33	Sun, II	T.	.	34.2	36.9	38.4	44.9	47.1	49.1	55.7	57.1	0.0	4 47.04	+ 0.23	. .	+ 5.83	9 5 53.10	. .
	34	μ Sagittarii	T.	.	35.2	38.0	39.6	46.1	48.3	50.4	57.1	58.7	1.4	5 48.31	+ 0.40	+ 6.04	+ 5.92	18 5 54.63	− 0.14
	35	δ Ursæ Minoris	T.	.	.	.	54.0	28.0	2.0	38.0	12.0	.	.	15 2.92	− 3.06	. .	+ 5.92	18 15 5.78	+ 0.77
	36	1 Aquilæ	T.	3	45.1	47.7	49.4	55.6	57.6	59.6	5.8	7.4	10.0	27 57.58	+ 0.34	+ 5.98	+ 5.92	18 28 3.84	− 0.02
	37	α Lyræ	T.	.	8.8	12.0	14.1	21.9	24.5	27.1	35.0	37.0	40.1	32 24.50	+ 0.12	+ 5.86	+ 5.93	18 32 30.55	+ 0.07
	38	δ Aquilæ, (R.)	T.	.	34.6	37.2	38.6	45.0	47.0	49.1	55.1	56.6	59.3	18 46.95	+ 0.23	. .	+ 5.93	19 18 53.11	+ 0.08
	39	κ Aquilæ	T.	.	31.1	33.8	35.2	41.5	43.5	45.6	51.0	53.4	56.0	29 43.56	+ 0.33	+ 6.02	+ 5.93	19 29 49.82	− 0.09
	40	γ Aquilæ, (R.)	T.	3	43.1	45.7	47.2	53.3	55.4	57.5	3.8	5.5	8.1	39 55.51	+ 0.18	. .	+ 5.94	19 40 1.63	+ 0.07
	41	Hesperia	T.	2	19.7	.	.	.	.	.	.	.	.	50 32.14	+ 0.34	. .	+ 5.94	19 50 38.42	. .
	42	τ Aquilæ	T.	.	25.5	28.1	29.7	35.7	37.8	40.0	46.2	47.7	50.2	57 37.88	+ 0.27	+ 5.88	+ 5.94	19 57 44.09	− 0.03
	43	α² Capricorni	T.	.	27.7	30.1	31.7	38.1	40.2	42.3	48.6	50.1	52.7	10 40.17	+ 0.36	+ 5.86	+ 5.94	20 10 46.47	+ 0.05
	44	79 Draconis	T.	.	.	.	0.5	7.4	14.7	21.8	29.1	.	.	51 14.70	− 0.39	. .	+ 5.96	21 51 20.27	+ 0.71
	45	32 Ursæ Majoris, S.P.	T.	.	.	.	.	.	.	.	.	.	.	. .	. .	. .	. .	. . .	. .
	46	π Aquarii	T.	.	16.2	18.6	20.3	26.3	28.4	30.4	36.6	38.1	40.7	18 28.40	+ 0.30	+ 5.92	+ 5.96	21 18 34.66	+ 0.03
	47	Ceres	T.	.	.	.	.	.	.	.	.	.	.	. .	. .	. .	. .	. . .	. .
	48	ι Cephei, (R.)	T.	3	28.9	35.5	39.3	53.8	58.7	4.1	18.4	22.2	28.5	44 58.82	− 0.35	. .	+ 5.97	22 45 4.44	+ 0.55

3.8. Bisections at sets B and D.
7.24. Bisections at C_1, C_3, and C_5.
16.32.42. Wire B used.
17. R. A. over three wires of set E and VII; bisections at the same wires.
19. Bisections at E_5 and VII.
23. Bisections at C_1 and set B.
30. Bisections at B_1, C_1, C_3, C_5, and D_3.
41. Wire A used.
43. Seems one rev. wrong in N. P. D.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Simpiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	316 36	11.8	11.1	6.7	6.0	26	482	455	515	470	510	12.0	316 39 8.7	. .	− 52.7	7 44 37.2	− 2.2
2	24 18	14.1	11.4	5.2	4.3	29	455	382	. .	380	440	12.0	24 20 24.1	. .	+ 25.3	75 27 10.6	+ 0.4
3	326 38	10 9.8	6.0	2.5	0.8	26	. .	. .	. .	542	575	12.0	326 41 11.5	. .	− 36.8	17 46 55.9	+ 2.5
4	347 20	11.6	8.4	4.3	2.5	26	560	485	. .	395	400	12.0	347 23 12.0	. .	− 12.6	38 29 20.6	− 0.1
5 6	312 14	10.3	7.6	4.0	3.4	23	128	133	150	148	132	12.0	312 18 2.5	405	− 1 1.6	3 23 22.1	− 1.6
7	316 36	7.9	6.4	2.5	0.4	26	. .	601	609	516	. .	11.5	316 39 11.5	373	− 52.6	7 44 40.1	+ 0.9
8	57 26	8.0	6.3	29.6	0.5	27	372	. .	372	. .	200	11.5	57 29 0.8	369	+ 1 27.2	108 36 49.2	
9	62 52	7.0	6.0	0.0	29.3	28	. .	194	. .	103	. .	11.5	62 54 48.5	369	+ 1 48.4	114 4 58.1	− 0.1
10	26 10	11.6	9.3	3.0	2.6	25	. .	534	. .	436	. .	11.5	26 13 25.8	. .	+ 27.5	77 20 14.5	+ 0.1
11	11 2	8.7	7.4	2.6	1.4	26	. .	588	. .	463	. .	11.5	11 5 11.6	. .	+ 10.9	62 11 43.7	− 0.7
12	59 54	10.4	8.7	2.1	1.7	25	. .	972	. .	840	. .	11.5	59 57 20.1	373	+ 1 36.1	111 5 17.4	+ 0.3
13	312 14	7.9	5.9	2.0	1.5	23	. .	309	310	310	. .	11.5	312 18 1.3	374	− 1 1.2	3 23 21.3	− 2.1
14	0 10	9.4	6.5	2.0	1.0	25	. .	. .	. .	014	. .	11.5	0 13 34.3	. .	+ 0.2	51 19 55.7	− 0.6
15	359 38	10 0.6	27.7	26.3	26.2	20	. .	. .	. .	. .	310	12.5	359 42 54.1	328	− 0.3	50 49 15.0	+ 3.6
16	150 38	9 28.3	28.3	21.5	20.9	38	. .	748	. .	752	. .	12.5	150 35 44.6	. .	− 31.1	80 31 7.7	− 2.8
17	316 36	9 22.3	19.5	15.0	10.8	28	. .	146	148	054	058	12.5	316 39 9.1	343	− 52.2	7 44 38.1	− 0.9
18	62 52	10 1.1	0.4	28.3	25.3	28	163	233	. .	445	785	12.5	62 54 49.7	. .	+ 1 47.9	114 2 58.8	+ 0.6
19	330 2	10 0.7	1.2	25.1	25.8	29	. .	. .	. .	042	875	12.5	330 4 42.5	. .	− 31.9	21 10 31.8	− 1.4
20	59 54	9 27.4	27.4	19.6	22.0	26	570	719	. .	472	655	12.5	59 57 22.0	364	+ 1 35.9	111 5 19.1	+ 2.0
21	312 14	10 1.9	29.9	26.1	28.1	23	601	753	632	648	623	12.5	312 18 2.5	. .	− 1 1.1	3 23 22.6	− 0.5
22																	
23	306 6	10 29.7	28.5	23.6	25.4	25	414	388	451	568	. .	12.5	306 9 6.9	372	− 1 16.2	357 14 11.9	+ 0.1
24	326 38	9.6	7.4	5.0	4.8	26	. .	500	570	635	. .	11.1	326 41 8.8	. .	− 36.6	17 46 53.4	+ 0.6
25	347 20	7.6	6.1	1.5	2.8	26	755	780	. .	590	585	11.1	347 23 9.9	. .	− 12.5	38 29 18.6	− 1.5
26	59 54	6.8	6.3	0.9	1.4	26	. .	150	. .	098	. .	11.1	59 57 18.2	. .	+ 1 36.0	111 5 15.4	− 1.7
27	312 14	10.0	8.3	4.3	5.6	23	045	025	020	070	150	11.1	312 18 2.1	. .	− 1 1.1	3 23 22.2	− 0.7
28	306 6	5.2	5.0	0.8	1.3	27	. .	. .	. .	100	. .	11.1	306 9 5.1	. .	− 1 16.1	357 14 10.2	− 1.3
29	5 36	13.8	12.3	7.1	6.1	20	. .	. .	. .	. .	350	11.0	5 40 39.8	. .	+ 5.5	56 47 6.5	+ 4.0
30	58 34	4.2	3.0	27.8	27.0	27	110	102	062	045	052	11.0	58 37 7.1	. .	+ 1 31.0	109 44 59.3	
31	35 58	8.7	6.0	0.2	2.8	25	345	390	. .	380	425	11.1	36 1 29.1	370	+ 40.5	87 8 30.8	+ 0.7
32	22 20	2.8	0.0	24.3	23.8	22	. .	338	. .	. .	. .	11.1	22 21 55.0	310	+ 22.6	73 28 38.8	− 3.3
33																	
34	59 54	8.3	7.7	29.5	3.4	26	. .	188	. .	068	. .	11.1	59 57 17.3	418	+ 1 37.1	111 5 15.6	− 1.6
35	312 14	10.3	9.0	3.2	5.0	23	050	010	029	049	103	11.1	.312 18 2.4	. .	− 1 1.8	3 23 21.8	− 0.1
36	47 10	16.6	16.5	8.8	11.0	29	. .	018	. .	920	. .	11.1	47 12 25.4	. .	+ 1 0.8	98 19 47.4	− 2.4
37	0 10	13.2	11.5	5.0	6.8	24	. .	630	. .	758	. .	11.1	0 13 35.2	417	+ 0.2	51 19 56.6	+ 1.8
38	143 56	8.8	9.5	2.0	2.4	29	. .	153	. .	010	954	11.1	143 58 31.5	419	− 41.0	87 8 30.7	+ 1.1
39	46 8	10.5	10.8	3.0	5.3	24	. .	982	. .	020	. .	11.1	46 11 31.9	. .	+ 58.7	98 18 51.8	+ 0.3
40	151 22	7.0	7.4	29.8	1.0	28	254	225	. .	190	110	11.1	151 24 46.3	419	− 30.7	79 41 5.3	+ 0.1
41	48 56	10.8	10.5	2.8	4.4	28	100	. .	. .	. .	860	11.1	49 1 20.7	. .	+ 1 4.7	100 8 46.6	− 2.7
42	31 58	9 29.3	28.7	20.5	21.3	28	. .	. .	. .	560	414	11.1	31 58 20.2	. .	+ 35.2	83 5 16.6	+ 0.4
43	51 46	13.1	13.1	5.5	7.4	24	. .	883	. .	764	. .	11.1	51 49 32.3	418	+ 1 11.5	102 57 5.0	+15.0
44	325 46	8.6	7.8	2.5	3.5	25	. .	. .	436	. .	. .	11.1	325 49 27.2	428	− 38.4	16 55 10.0	− 1.8
45	284 40	7.4	7.5	1.9	3.3	26	940	080	108	. .	. .	11.1	284 43 1.7	437	− 3 31.6	335 45 51.3	− 0.5
46	38 6	10.8	9.7	2.5	4.5	22	. .	728	. .	692	. .	11.1	38 10 7.5	. .	+ 44.5	89 17 13.2	− 0.1
47	63 28	11.6	11.4	4.1	7.3	24	. .	163	. .	960	. .	11.1	63 31 45.0	438	+ 1 53.1	114 39 59.3	− 3.9
48	206 34	6.4	9.5	2.4	1.3	29	. .	. .	. .	587	540	11.1	206 36 23.5	. .	+ 28.3	24 29 29.4	+ 1.9

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
8	− 46 17.8	+ 15 2.3
30	− 46 14.6	+ 14 50.1

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Aug. 5	1	Moon II, N.	T.	3	15.1	17.6	19.3	25.7	27.8	29.9	36.3	37.9	40.5	6 27.79	+ 0.33	. .	+ 5.97	23 6 34.09	−61.70
	2	θ Piscium	T.	.	0.3	2.8	4.3	10.3	12.5	14.6	20.8	22.4	24.9	21 12.54	+ 0.28	+ 5.94	+ 5.97	23 21 18.79	+ 0.05
6	3	Sun II	F.	.	. .	. .	. .	1.6	5.1	6.2	7.2	8.4	14.8	8 36.38	+ 0.33	. .	+ 6.05	9 8 42.76	−66.10
	4	Polaris, S. P.	F.	.	. .	. .	53.0	25.5	5.0	43.5	16.5	. .	. .	11 4.38	+14.48	. .	+ 6.09	1 11 24.95	− 2.10
	5	η Herculis	F.	.	1.6	5.1	6.9	14.7	17.5	20.2	28.1	30.1	33.1	38 17.48	+ 0.15	. .	+ 6.12	16 18 23.75	− 0.04
	6	κ Ophiuchi	F.	.	8.1	10.7	12.4	18.6	20.8	22.7	28.6	30.3	32.9	51 20.57	+ 0.38	+ 6.18	+ 6.12	16 51 27.07	− 0.03
	7	ε Ursæ Minoris	F.	.	. .	. .	. .	. .	34.3	56.1	3.7	11.1	18.8	59 31.90	− 2.85	. .	+ 6.12	16 59 35.17	− 1.95
	8	b Ophiuchi	F.	.	0.9	3.7	5.5	12.2	14.4	16.6	23.0	25.0	27.8	18 14.35	+ 0.63	+ 6.13	+ 6.12	17 18 21.10	− 0.01
	9	ω Draconis	F.	.	5.9	12.5	16.9	34.1	40.0	45.4	2.1	6.6	14.1	37 39.73	− 0.50	. .	+ 6.13	17 37 45.36	− 0.40
	10	γ Draconis, (R.)	F.	.	8.5	12.7	15.2	25.0	28.3	31.5	41.5	44.1	48.0	53 28.31	− 0.18	. .	+ 6.13	17 53 34.26	− 0.44
	11	μ Sagittarii	F.	.	35.0	37.8	39.3	45.8	48.0	50.1	57.1	58.5	1.0	5 48.07	+ 0.61	+ 6.07	+ 6.13	18 5 54.81	+ 0.04
	12	δ Ursæ Minoris	F.	.	. .	. .	53.0	28.0	3.0	. .	12.0	. .	. .	15 2.72	− 5.40	. .	+ 6.13	18 15 3.45	− 1.28
	13	α Lyræ	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	14	61¹ Cygni	F.	.	40.2	43.3	45.2	53.1	55.6	58.0	6.1	7.7	11.3	0 55.61	+ 0.15	. .	+ 6.16	21 1 1.92	+ 0.17
	15	α Cephei	F.	.	2.5	5.9	15.0	19.0	23.6	27.5	32.2	40.8	44.0	15 23.39	− 0.24	. .	+ 6.16	21 15 29.31	− 0.44
	16	β Aquarii	F.	.	20.3	22.7	24.2	28.5	30.5	32.6	. .	. .	. .	24 32.53	+ 0.50	+ 6.10	+ 6.16	21 24 39.19	+ 0.06
	17	ε Pegasi	F.	.	25.8	28.2	29.9	36.1	38.2	40.4	46.3	48.1	0.9	37 38.21	+ 0.39	+ 6.20	+ 6.16	21 37 44.76	− 0.06
7	18	δ Ursæ Minoris	E.	.	. .	. .	. .	26.0	3.0	36.5	10.5	. .	. .	15 1.88	− 3.56	. .	+ 6.56	18 15 4.88	+ 0.41
	19	1 Aquilæ	E.	.	. .	. .	. .	. .	59.1	1.0	5.1	6.7	9.3	27 56.93	+ 0.37	+ 6.59	+ 6.57	18 28 3.87	+ 0.02
	20	α Lyræ	E.	.	8.1	11.5	13.4	21.1	23.9	26.5	34.2	36.3	39.5	32 23.83	+ 0.12	+ 6.50	+ 6.57	18 32 30.52	+ 0.07
	21	51 (H) Cephei, S. P.	E.	.	35.5	41.0	9.5	46.0	2.5	18.5	. .	. .	. .	37 20.53	+ 5.01	. .	+ 6.57	6 37 32.11	+ 1.40
	22	50 Draconis	E.	.	47.3	57.1	2.9	27.1	35.0	43.0	6.7	13.0	23.3	50 35.05	− 0.72	. .	+ 6.57	18 50 40.90	− 0.03
	23	ζ Aquilæ, (R.)	E.	.	3.7	6.5	8.1	14.3	16.3	18.3	24.6	26.3	28.8	59 16.32	+ 0.19	. .	+ 6.57	18 59 23.08	+ 0.15
	24	d Sagittarii	E.	.	37.3	40.1	41.7	48.2	50.4	52.5	58.9	0.4	3.3	9 50.31	+ 0.42	. .	+ 6.58	19 9 57.31	− 0.06
	25	δ Aquilæ, (R.)	E.	.	34.0	. .	42.2	44.2	46.2	48.2	50.3	. .	58.5	18 46.24	+ 0.31	. .	+ 6.58	19 18 53.13	+ 0.11
	26	κ Aquilæ	E.	.	30.7	33.2	34.6	40.9	42.9	44.9	51.1	52.6	55.3	29 42.91	+ 0.36	+ 6.64	+ 6.58	19 29 49.85	− 0.06
	27	γ Aquilæ	E.	.	42.3	44.9	46.4	52.7	54.7	56.7	3.0	4.6	7.1	39 54.71	+ 0.27	+ 6.59	+ 6.58	19 40 1.56	0.00
	28	α Aquilæ	E.	.	3.9	6.5	8.1	14.3	16.3	18.3	24.7	26.1	28.6	44 16.31	+ 0.28	+ 6.52	+ 6.58	19 44 23.17	+ 0.07
	29	β Aquilæ	E.	.	33.2	35.7	37.2	43.4	45.4	47.3	53.7	55.2	57.5	48 45.40	+ 0.29	+ 6.59	+ 6.59	19 48 52.28	0.00
	30	τ Aquilæ	E.	.	24.8	27.4	28.8	35.0	37.1	39.1	45.2	47.0	49.3	57 37.08	+ 0.29	+ 6.66	+ 6.59	19 57 43.96	− 0.16
8	31	Polaris, S. P.	F.	2	. .	. .	. .	. .	12.0	50.0	24.0	37.0	. .	11 11.85	. .	. .	. .	. . .	. .
	32	α Virginis	F.	3	55.9	58.5	0.1	6.2	8.3	10.4	16.6	18.1	20.7	18 8.31	. .	. .	. .	. . .	. .
9	33	α Geminorum	F.	.	49.1	52.0	53.8	0.9	3.1	5.8	12.9	14.9	17.7	26 3.36	− 0.01	+ 7.17	+ 7.41	7 26 10.76	+ 0.44
	34	β Geminorum	F.	.	53.0	56.1	57.6	4.4	7.0	9.1	16.1	17.7	20.7	37 6.86	+ 0.02	+ 7.38	+ 7.41	7 37 14.29	+ 0.03
10	35	μ Sagittarii	F.	.	33.9	36.4	38.1	44.7	46.8	48.9	55.4	57.2	59.9	5 46.81	+ 0.27	+ 7.63	+ 7.53	18 5 54.61	− 0.12
	36	51 Cephei, S. P.	F.	.	. .	. .	44.1	2.7	. .	. .	. .	. .	. .	37 20.00	+ 4.93	. .	+ 7.53	6 37 22.46	+ 0.81
	37	ζ Aquilæ	F.	.	2.7	5.3	6.8	13.2	15.3	17.4	23.6	25.2	27.8	59 15.26	+ 0.09	+ 7.63	+ 7.54	18 59 22.89	− 0.05
	38	α² Capricorni	F.	.	26.1	30.2	34.2	36.2	38.5	40.7	42.8	47.1	51.2	10 38.56	+ 0.23	+ 7.61	+ 7.55	20 10 46.34	− 0.06
	39	α Cygni	F.	.	34.1	38.1	40.1	48.6	51.6	54.2	2.9	5.2	8.8	36 51.51	− 0.10	. .	+ 7.56	20 36 58.97	0.00
	40	μ Aquarii	F.	.	14.6	17.0	18.7	24.7	26.8	28.9	34.8	36.5	39.1	45 26.79	+ 0.21	+ 7.60	+ 7.56	20 45 34.56	− 0.02
11	41	Moon I, N.	T.	3	40.4	43.1	44.7	51.2	53.5	55.6	2.0	3.6	6.4	4 53.39	+ 0.21	. .	+ 7.66	4 5 1.26	−68.08
	42	γ Tauri	T.	3	57.6	0.2	1.8	8.2	10.3	12.4	18.7	20.3	23.0	12 10.28	+ 0.21	+ 7.76	+ 7.66	4 12 18.15	− 0.08
	43	ε Tauri	T.	.	35.0	37.7	39.4	45.8	47.9	50.1	56.6	58.2	0.9	20 47.96	+ 0.19	+ 7.72	+ 7.66	4 20 55.81	− 0.06
	44	α Tauri	T.	3	1.3	4.0	5.6	11.9	14.1	16.3	22.5	24.2	26.8	28 14.08	+ 0.20	+ 7.77	+ 7.66	4 28 21.94	− 0.11
	45	α Camelopardalis	T.	3	21.2	27.6	31.2	46.3	51.7	56.6	11.8	15.5	21.9	40 51.53	− 0.46	. .	+ 7.67	4 40 58.84	+ 0.45
	46	α² Geminorum	T.	.	48.4	51.3	53.2	0.4	3.0	5.1	12.6	14.3	17.3	26 2.84	+ 0.08	+ 7.65	+ 7.71	7 26 10.63	+ 0.26
12	47	Sun I, S.	T.	3	57.4	0.3	1.7	8.1	10.1	12.1	18.6	20.1	22.8	29 10.13	+ 0.22	. .	+ 7.75	9 29 18.10	. .
	48	Sun II, N.	T.	.	. .	. .	17.1	19.3	21.5	23.4	25.6	. .	. .	31 21.38	+ 0.22	. .	+ 7.75	9 31 29.35	. .

1. Bisections II to VI.
3. R. A. over set E and VII.
7. R. A. and bisections over set E.
13.38. Wire B used.
21. Observed over part of set C and D.
36. Observed over wires C_2 and C_1.
41. Bisections at wires II, VI.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	46 54	12.7	12.8	5.0	7.3	26	450	608	610	681	908	11.1	46 57 4.7	433	+ 1 0.4	98 4 26.3	
2	33 10	4.8	4.5	26.5	28.2	25	. .	. .	367	. .	. .	11.1	33 13 32.8	433	+ 37.0	84 20 31.0	− 0.4
3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . . . .	309			
4	307 28	9 28.4	28.0	26.6	27.4	27	858	923	913	886	893	11.3	307 30 57.9	304	− 1 11.4	358 36 7.3	− 1.3
5	359 38	4.2	2.9	27.4	27.4	20	190	235	. .	413	995	11.3	359 42 52.7	366	− 0.9	50 49 13.0	+ 2.6
6	29 14	10 0.6	29.0	26.2	23.1	24	. .	. .	. .	082	190	11.3	29 17 54.6	. .	+ 31.3	80 24 47.1	− 2.8
7	316 36	7.6	6.4	2.4	4.3	26	901	895	981	969	093	11.3	316 39 7.1	. .	− 52.5	7 44 35.8	− 2.4
8	62 52	9 23.0	21.3	22.4	23.0	29	. .	. .	. .	566	516	11.3	62 54 36.4	368	+ 1 48.4	114 2 46.0	−12.3
9	330 2	10 1.3	29.7	24.9	25.0	29	141	265	. .	240	. .	11.3	330 4 39.2	. .	− 32.1	21 10 28.3	− 3.5
10	192 34	9 26.0	25.7	19.8	17.1	28	679	670	. .	654	631	11.3	192 36 50.8	377	+ 12.5	38 28 17.9	− 0.8
11	59 54	10 3.5	2.6	25.2	28.3	26	172	279	. .	218	222	11.3	59 57 20.8	. .	+ 1 36.2	111 5 18.2	+ 1.0
12																	
13	0 10	10 4.3	2.2	25.6	28.0	15	. .	. .	. .	509	285	11.3	0 13 35.6	386	+ 0.2	51 19 57.0	+ 2.5
14	0 44	10 0.0	28.1	22.6	23.0	26	935	848	. .	962	012	11.3	0 47 14.4	393	+ 0.8	51 53 36.4	− 0.3
15	336 48	9 28.6	27.3	21.4	22.7	23	. .	. .	. .	049	114	11.3	336 52 13.9	. .	− 23.9	27 58 11.2	− 0.7
16																	
17	29 34	10 3.2	1.4	24.6	26.9	29	. .	389	. .	272	238	11.3	29 36 34.5	396	+ 31.8	80 43 27.5	+ 0.1
18	312 14	6.5	5.2	0.7	1.3	.	. .	410	465	410	. .	11.3	312 18 0.2	. .	− 1 1.3	3 23 20.1	− 1.3
19	47 10	10.6	9.5	2.8	5.0	29	. .	. .	. .	. .	220	11.3	47 12 26.7	. .	+ 1 0.2	98 19 48.1	− 1.6
20	0 10	7.8	5.2	0.0	1.2	25	160	290	. .	200	170	11.3	0 13 33.4	. .	+ 0.2	51 19 54.8	+ 0.5
21	306 6	10.0	9.2	4.5	5.5	26	820	870	900	870	800	11.3	306 9 3.2	. .	− 1 16.2	357 14 8.2	− 1.5
22																	
23	154 44	5.3	4.8	29.5	27.8	26	. .	. .	. .	330	430	11.3	154 47 15.5	. .	− 26.3	76 19 32.0	0.0
24	58 0	6.7	6.3	28.8	1.0	27	170	260	. .	170	. .	11.3	58 3 3.0	. .	+ 1 29.2	109 10 53.4	− 1.0
25	143 56	5.5	6.5	29.5	29.7	28	. .	. .	. .	. .	990	11.3	143 58 34.5	375	− 40.6	87 8 27.3	− 2.1
26	46 8	7.8	7.6	1.8	2.7	25	270	150	. .	200	135	11.3	46 11 31.7	. .	+ 58.1	97 18 51.0	− 0.4
27	28 32	12.3	11.8	5.6	7.0	26	170	180	. .	022	028	11.3	28 35 18.7	. .	+ 30.4	79 42 5.3	+ 0.3
28	30 18	11.4	11.0	3.8	5.0	25	. .	255	. .	145	. .	11.3	30 21 28.8	. .	+ 32.7	81 28 22.7	− 0.8
29	32 44	9.4	8.3	0.8	2.8	23	368	362	. .	295	288	11.3	32 47 59.9	. .	+ 35.9	83 54 57.0	− 1.1
30	31 54	8.0	7.1	0.5	1.4	22	075	155	. .	055	995	11.3	31 58 20.2	. .	+ 34.8	83 5 16.2	+ 0.3
31	307 28	8.0	9.7	2.7	4.0	27	. .	. .	360	346	. .	11.3	307 30 57.5	. .	− 1 10.2	358 36 8.5	− 0.5
32	49 18	11.5	12.3	5.3	5.5	27	. .	450	. .	310	. .	11.3	49 20 54.5	233	+ 1 2.8	100 28 18.5	− 1.4
33	6 40	10 2.7	0.8	25.4	25.1	27	050	956	. .	873	838	10.0	6 43 10.7	346	+ 6.5	57 49 38.4	− 1.0
34	10 30	9 29.5	28.1	22.5	20.4	27	636	688	. .	576	540	10.0	10 33 3.6	. .	+ 10.3	61 39 35.1	− 1.0
35	59 54	29.5	29.7	22.9	22.9	26	681	649	. .	560	483	10.0	59 57 17.5	368	+ 1 36.0	111 5 14.7	− 2.5
36	306 6	10 1.0	0.8	26.5	26.0	27	. .	. .	. .	495	472	10.0	306 9 1.6	370	− 1 16.1	357 14 6.7	− 2.3
37	25 10	6.4	6.1	0.5	2.1	28	. .	392	. .	378	262	10.0	25 12 43.0	. .	+ 26.2	76 20 30.4	− 1.2
38	51 48	10 2.2	3.3	26.5	24.4	24	. .	442	. .	655	030	10.0	51 49 18.8	. .	+ 1 10.8	102 56 50.8	+ 0.7
39	354 2	10 3.5	2.8	26.3	24.9	28	147	191	. .	245	388	10.0	354 4 49.8	. .	− 5.8	45 11 5.2	− 1.7
40	48 18	0.4	0.6	24.1	23.2	28	175	195	. .	085	943	10.0	48 20 53.7	380	+ 1 2.7	99 28 17.6	− 1.0
41	23 34	6.4	4.9	29.4	0.2	30	750	820	870	954	022	12.2	23 36 7.7	413	+ 24.6	74 42 53.5	
42	23 32	9.1	8.3	2.3	2.5	27	. .	629	. .	618	. .	12.2	23 34 54.9	. .	+ 24.6	74 41 40.7	+ 1.7
43	19 56	4.0	3.6	28.0	28.3	22	. .	. .	. .	528	461	12.2	20 0 17.0	. .	+ 20.4	71 6 58.6	+ 1.0
44	22 36	10.8	10.4	4.2	4.1	27	. .	810	. .	678	. .	12.2	22 38 51.3	408	+ 23.4	73 45 35.9	+ 2.8
45	332 44	3.0	2.5	27.5	27.5	25	486	313	. .	230	285	12.2	332 47 36.6	406	− 28.9	23 53 28.9	+ 0.9
46	6 40	4.0	3.1	27.5	26.2	26	. .	790	. .	779	. .	12.4	6 43 13.4	383	+ 6.6	57 49 41.2	+ 1.6
47	24 20	10 2.3	29.0	. .	23.5	26	. .	638	. .	. .	. .	12.4	24 23 18.6	. .	+ 25.1	75 30 4.9	− 3.5
48	23 48	9 26.8	23.4	18.3	16.3	25	. .	. .	. .	510	548	12.4	23 51 40.2	349	+ 24.5	74 58 25.9	− 3.5

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	
1	− 39 27.6	+ 14 48.3
41	− 22 57.5	+ 15 47.3

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
1868.														m. s.	s.	s		h. m. s.	s.
Aug. 12	1	α Canum Venat.	T.	.	28.2	31.4	33.5	41.4	44.0	46.5	54.4	56.5	59.8	49 43.97	+ 0.02	+ 7.86	+ 7.80	12 49 51.79	− 0.05
	2	Polaris, S. P.	T.	.	. .	. .	59.0	. .	12.0	. .	. .	. .	34.0	11 11.37	+13.80	. .	+ 7.81	1 11 32.98	+ 1.08
	3	β Libræ	T.	3	35.3	37.8	39.4	45.5	47.6	49.6	55.9	57.4	0.1	9 47.62	+ 0.37	+ 7.86	+ 7.84	15 9 55.83	− 0.03
	4	α Coronæ Borealis	T.	3	45.4	48.2	49.9	56.7	59.1	1.3	8.2	9.9	12.7	28 59.05	+ 0.13	+ 7.88	+ 7.84	15 29 7.02	− 0.04
	5	51 Cephei, S. P.	T.	3	. .	. .	43.0	1.0	19.0	37.0	53.0	. .	. .	37 18.76	+ 7.13	. .	+ 7.90	6 37 33.79	+ 1.31
	6	σ Sagittarii	T.	.	45.5	48.3	50.2	56.6	59.0	1.3	8.2	10.0	12.9	46 59.11	+ 0.50	+ 7.91	+ 7.90	18 47 7.51	− 0.03
	7	ζ Aquilæ, (R)	T.	3	2.3	4.8	6.5	12.6	14.8	16.9	23.1	24.8	27.5	59 14.81	+ 0.26	. .	+ 7.90	18 59 22.97	+ 0.05
	8	δ Draconis, (R.)	T.	3	55.2	2.0	5.9	21.6	27.1	32.5	48.3	52.3	59.3	12 27.13	− 0.44	. .	+ 7.91	19 12 34.60	+ 0.25
	9	δ Aquilæ, (R.)	T.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	10	κ Aquilæ	T.	.	29.2	31.8	33.4	. .	. .	. .	. .	. .	. .	29 41.56	+ 0.36	+ 7.98	+ 7.91	19 29 49.83	− 0.07
	11	γ Aquilæ	T.	.	40.9	43.5	45.2	51.5	53.5	55.5	1.7	3.3	5.8	39 53.43	+ 0.25	+ 7.87	+ 7.91	19 40 1.59	+ 0.05
	12	Anonymous	T.	3	34.8	37.4	39.2	45.2	47.1	49.4	. .	. .	. .	45 47.28	+ 0.38	. .	+ 7.92	19 45 55.58	. .
	13	Calypso	T.	2	. .	40.8	42.6	49.3	51.5	53.6	59.6	1.5	4.2	5 51.28	+ 0.43	. .	+ 7.92	20 5 59.63	. .
	14	κ Cephei	T.	3	. .	. .	. .	7.7	16.7	25.9	53.8	0.8	12.9	13 16.81	− 1.19	. .	+ 7.92	20 13 23.54	+ 0.56
	15	π Capricorni	T.	.	. .	30.1	31.7	38.2	40.2	42.3	48.7	50.5	53.2	19 40.25	+ 0.44	+ 7.84	+ 7.92	20 19 48.61	+ 0.08
	16	σ² Ursæ Majoris, S.P.	T.	3	5.9	59.3	55.3	39.4	33.7	28.3	12.2	8.3	1.5	58 33.77	+ 1.07	. .	+ 7.93	8 58 42.77	+ 0.25
	17	α Cephei, (R.)	T.	3	55.8	1.5	4.5	17.8	22.0	26.3	39.6	42.7	48.4	15 22.07	− 0.26	. .	+ 7.94	21 15 29.75	0.00
	18	ε Pegasi	T.	.	24.3	26.9	28.5	34.6	36.7	38.8	44.8	46.3	49.2	37 36.68	+ 0.25	+ 7.92	+ 7.95	21 37 44.88	+ 0.01
	19	β Ceti	T.	.	38.6	41.1	42.8	49.3	51.6	53.7	0.1	1.9	4.8	36 51.54	+ 0.44	+ 7.80	+ 7.99	0 36 59.97	+ 0.22
	20	Jupiter, I. S.	T.	.	45.7	48.2	49.7	. .	. .	. .	6.2	7.7	10.4	53 57.98	+ 0.29	. .	+ 8.00	0 54 6.27	. .
	21	Jupiter II, N.	T.	.	. .	. .	57.0	59.1	1.1	3.1	5.2	. .	. .	54 1.10	+ 0.29	. .	+ 8.00	0 54 9.39	. .
	22	ε Piscium	T.	3	15.8	18.5	20.1	26.1	28.1	30.1	36.3	38.0	40.5	1 28.17	+ 0.28	. .	+ 8.00	1 1 36.45	+ 4.08
	23	Neptune	T.	3	31.6	34.3	35.9	42.0	44.0	46.1	52.2	53.8	56.4	5 44.03	+ 0.28	. .	+ 8.00	1 5 52.31	. .
	24	Polaris	T.	.	. .	. .	. .	15.0	37.5	2.0	26.5	. .	. .	11 38.78	−13.25	. .	+ 8.00	1 11 33.53	+ 1.22
	25	Moon II, N.	F.	.	. .	. .	. .	50.8	54.1	55.2	56.3	57.4	4.1	3 24.48	+ 0.11	. .	+ 8.19	5 3 33.58	−70.23
	26	β Tauri	F.	.	35.9	38.7	40.4	47.4	50.0	52.9	59.0	0.6	3.7	17 49.74	+ 0.05	+ 8.11	+ 8.20	5 17 57.99	+ 0.08
	27	δ Orionis	F.	.	55.9	58.4	0.0	6.0	8.1	10.1	16.2	17.7	20.3	25 8.08	+ 0.21	+ 8.20	+ 8.20	5 25 16.49	− 0.02
	28	Venus II, S.	F.	.	. .	25.6	27.7	29.8	32.1	34.1	38.5	40.1	42.7	9 29.92	+ 0.12	. .	+ 8.23	7 9 38.27	− 1.53
	29	Venus N.	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	30	α Canis Minoris	F.	.	2.9	5.5	7.1	13.1	15.1	17.1	53.1	54.8	57.6	32 15.14	+ 0.18	+ 8.39	+ 8.24	7 32 23.56	− 0.17
	31	β Geminorum	F.	.	. .	. .	. .	5.7	8.3	10.5	15.2	17.0	19.9	37 5.92	+ 0.06	+ 8.34	+ 8.24	7 37 14.22	− 0.10
13	32	Sun I, N.	F.	.	46.8	47.9	52.1	54.1	55.8	57.8	0.5	4.6	6.5	33 56.23	+ 0.11	. .	+ 8.28	9 34 4.62	+65.57
	33	Sun S.	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	34	α Canum Venat.	F.	.	. .	. .	. .	. .	14.1	18.0	19.3	20.5	21.7	49 42.53	− 0.03	+ 8.34	+ 8.35	12 49 50.85	+ 0.02
	35	Polaris, S. P.	F.	.	. .	. .	1.5	43.0	12.5	50.0	26.0	. .	. .	11 12.54	+ 9.77	. .	+ 8.36	1 11 30.67	− 2.02
	36	α Scorpii	F.	.	58.8	1.4	3.2	10.1	12.5	14.5	21.4	23.1	25.8	21 12.31	+ 0.31	+ 8.62	+ 8.42	16 21 21.04	− 0.18
	37	b Ophiuchi	F.	.	. .	7.8	10.0	12.2	14.5	16.7	21.3	22.8	25.6	18 12.25	+ 0.30	+ 8.47	+ 8.44	17 18 20.99	− 0.03
	38	β Draconis	F.	.	0.2	4.6	7.1	17.1	20.5	23.9	33.6	36.3	40.4	27 20.41	− 0.15	. .	+ 8.44	17 27 28.70	+ 0.05
	39	ω Draconis	F.	.	3.4	10.4	15.3	. .	. .	. .	. .	. .	. .	37 37.41	− 0.46	. .	+ 8.44	17 37 45.39	− 0.06
	40	α Lyræ	F.	.	6.1	9.3	11.5	19.2	21.8	24.4	32.2	34.3	37.7	32 22.89	− 0.02	+ 8.49	+ 8.46	18 32 30.33	− 0.03
	41	51 Cephei, S. P.	F.	.	33.8	41.8	7.8	. .	. .	. .	. .	. .	. .	37 19.97	+ 5.03	. .	+ 8.46	6 37 33.46	+ 0.59
	42	50 Draconis	F.	.	. .	. .	. .	. .	33.3	41.7	50.1	. .	. .	51 33.74	− 0.74	. .	+ 8.47	18 51 41.47	+ 0.90
	43	d Sagittarii	F.	.	. .	. .	. .	. .	48.4	50.5	52.7	57.1	58.9	9 48.46	+ 0.27	. .	+ 8.47	19 9 57.20	− 0.14
	44	67 Piazzi, S. P.	F.	.	. .	. .	8.3	2.6	. .	50.1	45.1	. .	. .	16 56.54	+ 0.76	. .	+ 8.47	7 17 5.77	− 0.76
	45	κ Aquilæ	F.	.	29.0	31.6	33.2	39.1	41.3	43.3	49.6	51.1	53.5	29 41.30	+ 0.21	+ 8.38	+ 8.48	19 29 49.99	+ 0.10
	46	α Cygni	F.	.	33.3	37.1	39.2	47.9	50.8	53.4	2.1	4.1	7.7	36 50.62	− 0.07	. .	+ 8.50	20 36 59.05	+ 0.10
	47	ζ Cygni	F.	.	. .	. .	. .	. .	. .	. .	22.9	24.8	27.6	7 13.51	+ 0.03	+ 8.41	+ 8.51	21 7 22.05	+ 0.09
	48	1 Draconis, S. P.	F.	.	9.9	50.9	40.8	. .	. .	. .	. .	. .	. .	17 42.34	+ 1.79	. .	+ 8.51	9 17 52.64	− 1.57
	49	ε Pegasi	F.	.	23.8	26.2	28.0	34.1	36.2	38.2	44.7	46.0	48.6	37 36.20	+ 0.14	+ 8.51	+ 8.52	21 37 44.86	− 0.01
	50	Anonymous	F.	.	. .	. .	46.2	48.5	51.2	52.6	54.8	. .	. .	45 50.66	+ 0.33	. .	+ 8.53	21 45 59.52	. .

12.13.27.50. Wire A used.
14.39.41.42.44. Bisections at sets B and D.
25. Bisections at wires II, VI.
34. R. A. over set E.
37. Bisections at E_6 and VII.
44. Seems one rev. wrong in N. P. D.
50. Observed for Thalia.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° '	r ''	''	''	''							''	° ' ''		' ''	° ' ''	''
1	359 48	6.3	4.7	28.8	28.7	25	244	201	. .	090	022	12.4	359 51 36.9	. .	− 0.1	50 57 58.0	+ 0.4
2																	
3	47 42	7.3	8.7	2.1	0.7	22	. .	628	. .	562	. .	12.4	47 46 12.7	362	+ 1 1.2	98 53 35.1	0.0
4																	
5	306 6	2.2	3.0	28.3	28.6	27	439	278	343	430	280	12.4	306 10 4.1	437	− 1 17.2	357 15 8.1	− 0.5
6	65 16	5.3	6.6	0.1	1.3	27	. .	852	. .	789	. .	12.4	65 18 54.1	. .	+ 2 2.5	116 27 17.8	+ 0.5
7	154 44	29.6	0.0	24.5	26.4	26	870	830	. .	698	683	12.4	154 47 15.9	. .	− 26.7	76 19 32.0	+ 0.6
8	208 30	9 23.0	26.5	21.0	16.8	32	025	186	. .	966	856	12.4	208 32 0.3	444	+ 30.8	12 33 50.1	− 3.3
9	143 56	13.2	14.2	7.3	6.2	28	. .	. .	643	610	622	12.4	143 58 35.0	444	− 41.3	87 8 27.5	− 1.4
10	46 8	18.6	19.8	12.4	12.2	24	. .	651	. .	. .	. .	12.4	46 11 31.1	. .	+ 59.0	97 18 51.3	+ 0.2
11	28 32	14.3	14.3	7.6	8.1	26	. .	166	. .	070	. .	12.4	28 35 12.6	. .	+ 30.9	79 42 4.7	+ 0.4
12	49 22	14.2	14.0	7.5	7.1	25	510	738	. .	788	888	12.4	49 28 2.9	448	+ 1 6.2	100 35 30.3	
13	56 46	8.3	9.1	2.3	3.1	26	. .	208	. .	200	. .	12.4	56 51 50.6	. .	+ 1 26.7	107 59 38.5	− 3.6
14	321 32	9.6	9.5	5.1	5.1	25	. .	. .	820	774	. .	12.4	321 35 21.6	. .	− 45.0	12 40 57.8	− 0.6
15	57 36	8.7	8.5	2.0	3.5	21	. .	640	. .	680	. .	12.4	57 30 25.9	453	+ 1 28.9	108 38 16.0	+ 0.8
16	286 34	8.3	8.5	3.3	4.4	28	622	700	. .	703	464	12.4	286 36 37.9	458	− 3 8.8	337 19 50.3	− 0.3
17	203 6	10.1	13.5	7.0	5.2	31	642	532	. .	440	340	12.4	203 7 51.4	457	+ 24.3	27 57 5.5	− 4.3
18	29 34	8.7	8.6	2.0	3.0	29	. .	043	. .	974	. .	12.4	29 36 33.8	. .	+ 32.3	80 43 27.3	+ 0.9
19	57 32	12.8	12.9	5.3	6.5	28	. .	820	. .	719	. .	12.4	57 34 33.5	485	+ 1 29.8	108 42 24.5	+ 0.3
20	34 42	6.6	6.8	29.5	0.7	31	210	310	. .	. .	. .	12.4	34 44 2.6	. .	+ 39.6	85 51 3.4	− 1.2
21	34 42	6.6	6.8	29.5	0.7	34	. .	. .	. .	235	070	12.4	34 43 16.1	. .	+ 39.7	85 50 17.0	− 1.2
22	33 52	9.2	8.9	2.0	2.7	24	. .	340	. .	250	. .	12.4	33 55 45.8	. .	+ 38.5	85 2 45.5	−27.3
23	33 36	8.4	9.0	2.0	2.4	25	760	710	. .	660	608	12.4	33 39 24.9	. .	+ 38.1	84 46 24.2	− 0.2
24	310 16	9.5	9.7	4.5	6.0	28	. .	680	786	708	. .	12.4	310 18 36.4	492	− 1 7.4	1 24 50.2	+ 0.2
25	21 8	9 29.2	29.1	23.6	24.5	28	932	081	105	356	350	12.1	21 10 39.8	468	+ 22.1	72 17 23.1	
26	10 20	9 25.2	25.9	19.9	19.3	34	. .	222	. .	057	095	12.1	10 24 1.8	. .	+ 10.5	61 30 33.5	− 1.0
27	39 14	9 23.2	22.4	16.2	15.9	39	. .	094	. .	080	978	12.1	39 16 48.9	466	+ 46.5	90 23 56.6	− 1.8
28	22 44	6.9	7.3	0.7	0.8	32	. .	. .	. .	904	. .	12.1	22 45 34.7	422	+ 23.7	73 52 19.6	− 8.8
29	22 44	6.9	7.3	0.7	0.8	36	. .	. .	. .	. .	075	12.1	22 44 45.6	. .	+ 23.6	73 51 30.4	− 8.8
30	33 16	5.8	5.4	2.4	2.8	25	678	669	. .	667	543	12.1	33 19 26.6	. .	+ 37.0	84 26 24.8	− 1.4
31	10 30	11.8	10.5	5.7	5.4	26	. .	. .	. .	781	703	12.1	10 33 4.7	412	+ 8.3	61 39 34.2	− 2.1
32	24 6	11.7	8.8	2.5	2.5	.	. .	625	. .	. .	. .	12.1	24 9 56.3	371	+ 25.0	75 16 42.5	− 3.5
33	24 38	7.5	5.4	0.0	0.0	25	. .	. .	. .	116	130	12.1	24 41 34.0	. .	+ 25.6	75 48 20.8	− 3.6
34	359 48	10 1.6	0.3	25.6	23.3	25	. .	. .	. .	. .	217	12.1	359 51 38.7	339	− 0.1	50 57 59.8	+ 2.1
35	307 28	9 29.9	29.8	25.5	25.6	27	942	748	690	718	628	12.1	307 31 0.8	. .	− 1 12.0	358 36 10.0	− 0.1
36	64 56	9 26.5	26.4	19.2	17.4	24	818	942	. .	735	856	12.1	64 59 50.2	395	+ 1 59.5	116 8 10.9	+ 1.8
37	62 52	10 4.1	3.3	27.8	26.4	28	. .	. .	. .	453	239	12.1	62 54 47.4	427	+ 1 49.8	114 2 58.4	0.0
38	346 26	9 27.8	24.7	20.0	19.0	25	. .	. .	. .	018	069	12.1	346 29 31.2	. .	− 13.6	37 35 38.8	+ 2.1
39	330 2	0.6	25.5	24.6	24.4	.	186	243	. .	. .	. .	12.1	330 4 39.9	433	− 32.5	21 10 28.6	− 2.0
40	0 10	4.7	2.7	27.9	27.9	25	478	455	. .	218	380	12.1	0 13 34.2	458	+ 0.2	51 19 55.6	+ 2.5
41	306 4	2.1	0.6	26.3	26.2	19	540	585	462	. .	. .	12.1	306 9 4.3	. .	− 1 17.6	357 14 7.9	− 0.5
42	323 34	2.2	1.0	27.7	27.7	26	. .	. .	. .	643	498	12.1	323 37 16.7	460	− 41.9	14 42 56.0	− 6.5
43																	
44	287 36	5.1	4.4	29.7	29.9	21	. .	871	. .	946	. .	12.1	287 40 25.1	. .	− 2 56.7	338 43 49.6	+17.5
45	46 8	8.0	7.2	0.4	0.4	25	. .	536	. .	. .	328	12.1	46 11 29.5	468	+ 59.4	97 19 50.1	− 1.0
46	354 2	6.0	3.8	28.9	28.7	28	059	138	. .	018	053	12.1	354 4 52.1	. .	− 5.9	45 11 7.4	+ 1.4
47	9 8	5.1	3.3	26.9	28.2	23	. .	. .	267	345	428	12.1	9 12 4.3	482	+ 9.2	60 18 34.7	+ 4.4
48	300 46	9.9	8.2	3.9	3.9	25	. .	. .	. .	438	. .	12.1	300 49 24.1	. .	− 1 35.5	351 54 9.8	− 0.3
49	29 34	2.4	0.9	24.8	25.1	29	601	531	. .	460	. .	12.1	29 36 33.2	. .	+ 32.5	80 43 26.9	+ 0.6
50	67 28	2.9	0.6	24.5	24.6	24	101	191	. .	201	425	12.1	67 34 27.9	. .	+ 1 17.6	118 42 6.7	

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	' ''	' ''
25	− 21 2.1	+ 16 2.9

DATE.	Number.		OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
															m. s.	s.	s.	s.	h. m. s.	s.
Aug. 13	1		Ceres	F.	.	38.5	41.1	43.0	49.9	51.8	54.2	0.9	2.5	5.3	23 51.91	+ 0.31	. .	+ 8.54	22 24 0.76	. .
	2	α	Piscis Australis	F.	.	.	.	.	.	.	.	.	.	.	. .	. .	. .	. .	. . .	. .
	3	κ	Piscium	F.	.	57.9	0.5	2.0	8.1	10.5	12.4	18.4	20.1	22.7	21 10.29	+ 0.15	+ 8.46	+ 8.56	23 21 19.06	+ 0.15
	4	ι	Piscium	F.	.	51.3	53.8	55.2	1.6	3.8	5.7	12.0	13.4	15.8	33 3.62	+ 0.15	+ 8.44	+ 8.56	23 33 12.33	+ 0.10
	5	α	Cassiopeæ	F.	.	.	.	.	.	0.6	4.5	12.1	14.5	19.3	32 57.33	− 0.19	. .	+ 8.58	0 33 5.72	+ 0.02
	6		Jupiter I, S.	F.	.	38.1	40.3	42.1	. .	. .	. .	58.5	59.8	2.2	53 50.17	+ 0.16	. .	+ 8.59	0 53 58.92	. .
	7		Jupiter II, N.	F.	.	. .	. .	49.4	51.4	53.3	55.3	57.5	. .	. .	53 53.38	+ 0.16	. .	+ 8.59	0 54 2.13	. .
	8		Polaris	F.	.	. .	. .	. .	. .	. .	16.5	9.0	11.0	56.0	11 33.05	− 9.46	. .	+ 8.59	1 11 32.18	− 0.89
	9		Moon II, N.	E.	.	4.6	7.4	9.1	15.7	17.9	20.1	26.7	28.5	31.2	5 17.91	+ 0.04	. .	+ 8.84	6 5 26.79	−72.02
	10		Venus II, S.	E.	.	19.1	21.7	23.3	29.6	31.7	33.9	40.3	42.0	44.7	10 31.81	+ 0.04	. .	+ 8.86	7 10 40.71	− 1.50
	11		Venus, N.	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .
	12	α	Geminorum	E.	.	47.5	50.5	52.4	59.6	1.9	4.2	11.5	13.4	16.6	26 1.96	+ 0.01	+ 8.64	+ 8.87	7 26 10.84	+ 0.43
	13	α	Canis Minoris	E.	.	2.4	5.1	6.6	12.7	14.7	16.7	22.8	24.4	27.1	32 14.72	+ 0.06	+ 8.95	+ 8.87	7 32 23.65	− 0.10
	14	β	Geminorum	E.	.	51.7	54.5	56.3	3.2	5.5	7.9	14.8	16.5	19.5	37 5.54	+ 0.02	+ 8.78	+ 8.87	7 37 14.43	+ 0.09
	15		Mercury, (center)	E.	.	. .	. .	36.2	38.5	40.6	43.1	47.1	48.8	51.5	43 38.49	+ 0.04	. .	+ 8.89	8 43 47.42	. .
14	16		Sun I	E.	.	. .	. .	. .	. .	. .	. .	48.7	50.4	53.2	36 40.43	+ 0.05	. .	+ 8.91	9 36 49.39	. .
	17		Sun II, N.	E.	.	39.0	41.4	43.1	49.4	51.4	53.6	0.1	1.6	4.3	38 51.54	+ 0.05	. .	+ 8.91	9 39 0.50	. .
	18	ψ	Draconis, (R.)	E.	.	. .	. .	. .	10.8	17.0	23.4	36.5	41.7	50.1	44 10.24	+ 0.06	. .	+ 9.07	17 44 19.37	− 0.01
	19	γ	Draconis, (R.)	E.	.	5.6	10.0	12.1	22.1	25.1	28.5	38.5	40.6	44.9	53 25.27	+ 0.09	. .	+ 9.07	17 53 34.43	− 0.08
	20	γ	Sagittarii	E.	.	. .	. .	. .	. .	41.5	44.9	46.2	47.5	48.6	57 13.13	+ 0.14	+ 9.14	+ 9.07	17 57 22.34	− 0.10
	21		Sagittarii	E.	.	. .	. .	. .	. .	11.5	14.7	16.1	17.1	18.1	5 45.36	+ 0.11	+ 9.20	+ 9.08	18 5 54.55	− 0.14
	22	δ	Ursæ Minoris	E.	.	. .	. .	. .	19.5	55.0	29.0	1.0	. .	. .	14 54.00	− 1.03	. .	+ 9.08	18 15 2.05	− 0.10
	23	β	Lyræ	E.	.	. .	. .	. .	5.7	8.1	10.5	15.2	17.1	20.3	45 5.62	+ 0.01	+ 9.04	+ 9.08	18 45 14.71	+ 0.06
	24	ζ	Aquilæ, (R.)	E.	.	1.0	3.8	5.2	11.5	13.6	15.8	22.0	23.7	26.3	59 13.66	+ 0.12	. .	+ 9.09	18 59 22.87	− 0.01
	25	d	Sagittarii	E.	.	35.0	37.6	39.4	45.8	48.0	50.1	56.5	58.1	1.0	9 47.94	+ 0.11	. .	+ 9.10	19 9 57.15	− 0.10
	26	δ	Draconis	E.	.	. .	. .	. .	. .	29.1	37.1	39.8	42.5	45.0	12 25.38	− 0.12	. .	+ 9.10	19 12 34.36	+ 0.07
	27	δ	Aquilæ, (R.)	E.	.	. .	39.8	41.8	43.8	45.9	47.8	51.9	53.4	55.9	18 43.78	+ 0.13	. .	+ 9.10	19 18 53.00	+ 0.10
	28	κ	Aquilæ	E.	.	28.3	30.8	32.4	38.5	40.6	42.7	48.8	50.3	53.0	29 40.60	+ 0.09	+ 9.20	+ 9.10	19 29 49.79	− 0.10
	29	γ	Aquilæ, (R.)	E.	.	40.0	42.5	44.0	50.2	52.2	54.2	0.5	2.1	4.5	39 52.24	+ 0.13	. .	+ 9.11	19 40 1.48	− 0.06
	30	α	Aquilæ	E.	.	1.3	4.1	5.5	11.8	13.8	16.0	22.2	23.6	26.2	44 13.83	+ 0.06	+ 9.20	+ 9.11	19 44 23.00	− 0.08
	31	β	Aquilæ	E.	.	30.9	33.5	35.1	41.0	43.1	45.1	51.4	52.9	55.3	48 43.14	+ 0.06	+ 9.06	+ 9.11	19 48 52.31	+ 0.05
	32	ε	Canis Majoris	T.	.	. .	. .	12.2	14.5	16.8	19.2	21.5	. .	. .	53 16.84	+ 0.20	+ 9.26	+ 9.18	6 53 26.22	− 0.10
	33	δ	Canis Majoris	T.	3	38.2	41.1	42.8	29.7	51.9	54.2	1.0	2.6	5.6	3 51.90	+ 0.19	. .	+ 9.18	7 4 1.27	− 0.23
	34		Moon II	T.	.	30.2	32.9	34.5	41.1	43.4	45.8	52.4	54.1	56.9	9 43.48	+ 0.07	. .	+ 9.19	7 9 52.74	−73.08
	35		Venus II, N.	T.	3	29.3	32.1	33.7	40.0	42.1	44.2	50.7	52.3	54.9	11 42.14	+ 0.07	. .	+ 9.19	7 11 51.40	− 1.48
	36		Venus S.	T.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .
	37	α	Geminorum	T.	.	46.9	50.1	51.8	59.1	1.5	4.1	11.1	13.0	16.2	26 1.53	+ 0.03	+ 9.07	+ 9.19	7 26 10.75	+ 0.32
	38	α	Canis Minoris	T.	3	2.0	4.6	6.2	12.3	14.3	16.3	22.5	24.1	26.6	32 14.32	+ 0.10	+ 9.33	+ 9.19	7 32 23.61	− 0.16
	39	β	Geminorum	T.	.	51.1	54.1	55.8	2.9	5.2	7.4	14.3	16.1	19.1	37 5.11	+ 0.04	+ 9.21	+ 9.20	7 37 14.35	− 0.01
	40		Mercury II, (center)	T.	2	9.5	12.0	13.8	20.2	22.5	24.6	31.1	32.8	35.6	51 22.46	+ 0.07	. .	+ 9.23	8 51 31.76	− 0.21
15	41		Sun I, N.	T.	.	12.6	15.2	17.0	23.2	25.4	27.5	33.7	35.3	37.8	40 25.30	+ 0.08	. .	+ 9.26	9 40 34.64	. .
	42		Sun II, S.	T.	.	. .	31.8	33.8	35.9	38.0	40.1	44.2	46.1	48.6	42 35.94	+ 0.08	. .	+ 9.26	9 42 45.28	. .
	43	β	Leonis	T.	.	. .	. .	6.0	8.1	10.2	12.3	14.4	. .	. .	42 10.20	+ 0.08	+ 9.38	+ 9.28	11 42 19.56	− 0.09
	44	α	Canum Venat.	T.	3	26.2	29.1	30.9	39.0	41.5	44.1	52.0	54.0	57.6	49 41.60	+ 0.01	+ 9.21	+ 9.31	12 49 50.92	+ 0.11
	45		Polaris, S. P.	T.	.	. .	. .	7.0	46.0	25.0	0.0	34.0	. .	. .	11 22.08	+ 3.83	. .	+ 9.32	1 11 34.23	+ 0.13
	46	κ	Aquilæ	T.	.	27.9	30.4	32.1	38.1	40.3	42.4	48.6	50.2	52.7	29 40.30	+ 0.13	+ 9.45	+ 9.46	19 29 49.89	+ 0.01
	47		Hesperia	T.	3	44.1	46.6	48.4	54.4	56.5	58.6	5.0	6.4	9.1	43 56.57	+ 0.14	.	+ 9.46	19 44 6.17	. .
	48	β	Aquilæ	T.	.	30.4	33.0	34.5	40.6	42.6	44.6	51.1	52.5	55.2	48 42.72	+ 0.10	+ 9.44	+ 9.47	19 48 52.29	+ 0.03
	49		Calypso	T.	3.2	20.1	22.7	24.3	30.8	32.8	35.1	41.5	43.4	45.6	3 32.92	+ 0.16	. .	+ 9.47	20 3 42.55	. .
	50	π	Capricorni	T.	.	26.1	28.6	30.3	36.6	38.8	41.1	47.5	49.1	51.8	19 38.88	+ 0.16	+ 9.50	+ 9.47	20 19 48.51	− 0.03
	51	ε	Delphini, (R.)	T.	.	34.8	37.5	59.1	. .	. .	. .	55.8	57.4	0.2	26 47.47	+ 0.16	. .	+ 9.48	20 26 57.11	+ 0.13

1, 47, 49. Wire A used.
8. Observed over wires C_6 and D_5.
20, 21, 26. R. A. observed over set E.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	64 22	2.4	1.5	25.5	25.8	28	983	091	. .	058	072	12.1	64 27 13.5	490	+ 1 59.1	115 35 33.8	− 4.0
2	69 6	2.3	1.3	24.0	24.6	23	. .	. .	. .	399	239	12.1	69 10 6.7	. .	+ 2 29.4	120 18 57.3	+ 1.6
3	33 10	5.2	3.9	28.0	28.7	25	186	308	. .	578	608	12.0	33 13 32.5	. .	+ 37.5	84 20 31.2	+ 1.1
4	33 54	2.4	1.5	25.0	24.9	23	338	418	. .	421	322	12.0	33 58 6.7	494	+ 38.6	85 5 6.5	+ 1.0
5	343 2	5.0	2.5	27.4	27.3	26	. .	. .	. .	800	942	12.0	343 5 10.9	504	− 17.5	34 11 14.6	+ 0.8
6	34 42	3.4	1.6	25.8	24.6	.	497	222	. .	. .	. .	12.0	34 45 6.4	. .	+ 39.9	85 52 7.5	− 1.2
7	34 42	3.4	1.6	25.8	24.6	30	. .	. .	. .	553	235	12.0	34 44 17.9	. .	+ 39.8	85 51 18.9	− 1.2
8	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . .	510			
9	19 48	0.8	29.8	24.8	25.3	28	. .	. .	320	. .	. .	12.0	19 50 51.8	. .	+ 20.4	70 57 33.4	
10	22 38	4.3	3.0	27.0	27.7	21	775	590	. .	. .	. .	12.0	22 42 31.7	. .	+ 23.5	73 49 16.4	− 8.6
11	22 38	4.3	3.0	27.0	27.7	24	. .	. .	. .	505	480	12.0	22 41 46.7	. .	+ 23.5	73 48 31.4	− 8.6
12	6 40	4.8	3.8	29.5	29.5	26	. .	800	. .	705	. .	12.0	6 43 11.8	. .	+ 6.6	57 50 39.6	− 0.1
13	33 16	0.5	29.0	23.5	23.8	26	162	128	. .	040	010	12.0	33 19 27.1	. .	+ 36.8	84 26 25.1	− 1.0
14	10 30	4.7	4.4	28.8	29.2	27	315	280	. .	285	250	12.0	10 33 3.9	. .	+ 10.4	61 39 35.5	− 0.9
15	19 44	5.3	3.8	28.8	28.4	22	. .	. .	. .	788	950	12.0	19 48 10.4	. .	+ 20.1	70 54 51.7	− 2.5
16																	
17	24 26	9.8	7.5	0.7	3.0	28	. .	. .	. .	190	200	12.0	24 28 44.9	340	+ 25.3	75 35 31.4	− 3.6
18	213 16	2.5	4.3	0.0	27.8	27	. .	. .	. .	758	610	12.6	213 18 56.0	. .	+ 36.9	17 46 48.3	− 1.7
19	192 34	9.5	9.8	5.0	3.0	27	. .	740	. .	680	. .	12.6	192 36 52.2	. .	+ 12.6	38 29 16.4	− 0.8
20	69 12	5.0	4.2	28.0	28.3	21	. .	. .	. .	. .	680	12.6	69 16 28.6	. .	+ 2 27.5	120 25 17.3	+ 1.0
21	59 54	8.2	7.3	2.4	2.5	26	. .	. .	. .	. .	000	12.6	59 57 19.0	. .	+ 1 37.1	111 5 17.3	0.0
22	312 14	9.2	6.6	3.2	4.3	23	. .	450	390	380	388	12.6	312 17 59.6	. .	− 1 1.9	3 23 18.9	− 0.9
23	5 36	9.8	7.6	3.1	1.8	21	. .	. .	. .	215	262	12.6	5 40 32.1	. .	+ 5.6	56 46 58.9	− 0.6
24	154 44	5.8	4.5	0.2	27.0	26	455	500	. .	440	410	12.6	154 47 16.7	. .	− 26.7	77 19 31.2	+ 0.1
25	58 0	10 9.8	8.2	3.2	2.8	27	245	252	. .	165	040	12.6	58 3 1.4	. .	+ 1 30.6	109 10 53.2	− 1.3
26	331 24	9.2	7.8	4.0	3.8	23	. .	. .	. .	212	188	12.6	331 28 2.4	. .	− 30.8	23 33 52.8	0.0
27	143 56	5.2	6.5	0.4	28.4	29	. .	. .	. .	195	215	12.6	143 58 32.8	. .	− 41.2	87 8 29.6	+ 0.9
28	46 8	10.5	9.3	3.4	5.0	25	165	225	. .	228	172	12.6	46 11 30.8	. .	+ 59.1	97 18 51.1	0.0
29	151 22	7.5	6.5	1.5	0.2	28	. .	215	. .	108	. .	12.6	151 24 48.6	. .	− 31.0	79 42 3.6	− 0.4
30	30 18	9.5	8.0	2.4	3.4	25	. .	515	. .	420	. .	12.6	30 21 28.0	. .	+ 33.3	81 28 22.5	0.0
31	32 44	9.8	7.4	1.0	1.5	23	550	470	. .	420	365	12.6	32 47 59.7	. .	+ 36.7	83 54 57.6	+ 0.3
32	67 34	2.2	1.7	25.9	27.3	19	. .	. .	. .	710	710	13.0	67 39 1.5	393	+ 2 15.2	118 37 37.9	− 1.2
33	64 58	2.0	1.0	24.9	27.6	20	840	958	. .	822	812	13.0	65 2 45.4	386	+ 1 59.4	116 11 6.0	− 0.3
34																	
35	22 36	17.0	15.8	9.5	10.9	27	. .	648	. .	. .	. .	13.0	22 38 48.5	. .	+ 23.3	73 45 33.0	− 6.8
36	22 36	17.0	15.8	9.5	10.9	24	. .	. .	. .	500	670	13.0	22 39 33.4	382	+ 23.3	73 46 17.9	− 6.8
37	6 40	10.3	9.2	3.3	4.6	26	590	480	. .	520	350	13.0	6 43 12.1	. .	+ 6.6	57 49 39.9	+ 0.1
38	33 16	10.7	10.0	4.5	5.0	25	350	404	. .	300	390	13.0	33 19 28.3	. .	+ 36.7	84 26 26.2	+ 0.1
39	10 30	9.1	8.5	3.5	4.5	26	. .	. .	. .	872	. .	13.0	10 33 5.6	. .	+ 10.4	61 39 37.2	+ 0.8
40	20 6	11.8	10.0	4.8	6.4	27	410	563	. .	301	260	13.0	20 8 56.8	357	+ 20.4	71 15 38.4	− 2.5
41	24 46	10 15.5	14.5	8.4	7.2	33	390	472	. .	. .	. .	13.0	24 47 22.4	. .	+ 25.4	75 54 9.0	− 3.6
42	25 16	9 27.3	24.2	19.5	16.2	27	. .	. .	. .	. .	810	13.0	25 19 5.0	323	+ 26.1	76 25 52.3	− 3.7
43	23 30	12.4	10.1	3.0	4.3	20	. .	. .	. .	. .	472	13.0	23 34 41.9	283	+ 23.9	74 41 27.0	+ 2.6
44	359 48	11.7	10.5	4.6	5.4	24	803	788	. .	622	736	13.0	359 51 37.7	. .	− 0.1	50 57 58.8	+ 0.9
45	307 28	12.0	11.3	5.8	7.3	27	042	083	936	943	954	13.0	307 31 1.6	291	− 1 11.2	358 36 11.6	+ 0.9
46	46 8	8.1	8.5	1.0	3.8	25	. .	228	. .	300	. .	13.4	46 11 32.3	399	+ 58.4	97 18 51.9	+ 0.9
47	49 34	7.2	6.7	0.1	2.2	25	643	650	. .	450	450	13.4	49 40 3.3	. .	+ 1 6.0	100 47 30.5	− 2.6
48	32 44	11.5	10.7	3.0	5.8	23	. .	288	. .	130	. .	13.4	32 48 1.4	. .	+ 36.1	83 54 58.7	+ 1.5
49	56 58	9.5	9.4	1.8	4.8	26	. .	. .	. .	041	770	13.4	57 3 54.7	403	+ 1 26.4	108 11 42.3	− 3.6
50	57 26	7.0	6.7	29.5	2.5	21	. .	785	. .	621	. .	13.4	57 30 28.0	. .	+ 1 27.9	108 38 17.1	+ 1.9
51	151 56	5.3	5.3	28.5	0.7	29	. .	. .	244	. .	. .	13.4	151 58 34.3	403	− 29.9	79 8 16.8	− 1.8

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
9	− 20 4.0	+ 16 17.8

OBSERVATIONS WITH THE TRANSIT CIRCLE.

DATE	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan'us Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Aug. 17	1	Sun I, N.	F.	.	40.1	42.6	44.3	50.7	53.0	55.0	1.1	2.7	5.1	47 52.73	+ 0.14	. .	+10.27	9 48 3.14	. .
	2	Sun II, S.	F.	.	51.0	53.2	55.1	1.4	3.4	5.5	11.5	13.1	15.7	50 3.32	+ 0.14	. .	+10.27	9 50 13.73	. .
	3	51 Cephei, S. P.	F.	.	53.0	33.5	12.0	52.0	49.0	. .	. .	. .	. .	37 20.38	+ 3.60	. .	+10.44	6 37 34.42	+ 0.03
	4	κ Aquilæ	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .
	5	γ Aquilæ	F.	.	38.4	40.9	42.5	48.7	50.8	52.8	59.2	0.7	3.4	39 50.82	+ 0.15	+10.56	+10.46	19 40 1.43	− 0.09
	6	β Aquilæ	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	17.1	48 40.16	+ 0.17	+11.92	+10.46	19 48 50.80	− 1.45
	7	α² Capricorni	F.	.	23.2	25.8	27.4	33.6	35.7	38.0	44.1	45.7	48.2	10 35.74	+ 0.25	+10.40	+10.47	20 10 46.46	+ 0.07
	8	π Capricorni	F.	.	25.0	27.5	29.2	35.6	37.8	39.9	46.3	48.2	50.7	19 37.80	+ 0.27	+10.47	+10.48	20 19 48.55	+ 0.01
	9	ε Delphini	F.	.	33.9	36.6	38.1	44.2	46 3	48.4	54.6	56.2	58.8	26 46.34	+ 0.15	+10.50	+10.48	20 26 56.97	− 0.01
	10	μ Aquarii	F.	.	. .	. .	. .	. .	. .	51.7	52.8	53.9	55.0	45 23.89	+ 0.23	+10.49	+10.48	20 45 34.60	+ 0.01
	11	61¹ Cygni	F.	.	. .	. .	. .	. .	. .	26.7	27.7	29.3	30.6	0 51.65	+ 0.03	. .	+10.49	21 1 2.17	+ 0.40
	12	ι Draconis, S. P.	F.	.	18.8	12.3	4.8	57.4	. .	. .	. .	. .	. .	17 41.95	+ 1.32	. .	+10.50	9 17 53.77	− 0.09
	13	ξ Aquarii	F.	.	23.0	25.4	26.9	33.3	35.4	37.5	43.7	45.0	47.8	30 35.33	+ 0.28	+10.43	+10.50	21 30 46.11	− 0.05
	14	Venus I, S. C.	E.	.	46.6	49.2	50.8	57.1	59.2	1.3	7.8	9.4	12.1	15 59.28	+ 0.15	. .	+10.88	7 16 10.31	− 1.41
	15	Venus, N. C.	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	16	α² Geminorum	E.	.	. .	. .	. .	. .	29.0	32.4	33.7	34.9	36.1	25 59.99	+ 0.07	+10.65	+10.88	7 26 10.94	+ 0.43
	17	α Canis Minoris	E.	.	0.4	3.0	4.6	8.7	10.7	12.8	14.7	16.9	. .	32 12.76	+ 0.21	+10.84	+10.88	7 32 23.85	+ 0.02
	18	β Geminorum	E.	.	. .	. .	59.0	1.2	3.4	5.8	8.1	. .	. .	37 3.50	+ 0.09	+10.84	+10.88	7 37 14.47	+ 0.04
18	19	Sun I, N.	E.	.	22.8	25.7	27.1	33.5	35.5	37.6	44.0	45.6	48.1	51 35.54	+ 0.17	. .	+10.94	9 51 46.65	. .
	20	Sun II, S.	E.	.	33.1	35.8	37.1	43.6	45.7	47.8	54.1	55.7	58.3	53 45.69	+ 0.17	. .	+10.94	9 53 56.80	. .
	21	β Leonis	E.	.	56.1	58.5	4.5	6.2	8.5	10.9	13.0	18.9	21.5	42 8.68	+ 0.16	+10.81	+10.98	11 42 19.82	+ 0.18
	22	α Canum Venat.	E.	.	24.3	27.4	29.4	37.3	39.9	42.5	50.4	52.4	55.7	49 39.92	+ 0.02	+10.83	+11.01	12 49 50.95	+ 0.19
	23	Polaris, S. P.	E.	.	. .	. .	0.5	36.5	14.0	48.0	27.5	. .	. .	11 12.98	+ 8.78	. .	+11.01	1 11 32.77	− 3.14
	24	α Virginis	E.	.	51.6	54.2	55.7	2.1	4.1	6.1	12.1	13.9	16.5	18 4.03	+ 0.28	+11.02	+11.02	13 18 15.33	+ 0.01
	25	γ Draconis	E.	.	3.5	7.6	10.0	19.9	23.1	26.5	36.5	38.7	42.8	53 23.18	− 0.08	. .	+11.12	17 53 34.22	− 0.18
	26	μ Sagittarii	E.	.	29.9	32.6	34.3	40.7	43.0	45.2	51.7	53.3	56.1	5 42.98	+ 0.32	+11.32	+11.12	18 5 54.42	− 0.22
	27	δ Ursæ Minoris	E.	.	. .	. .	42.5	16.5	50.5	25.5	0.0	. .	. .	14 51.12	− 3.37	. .	+11.13	18 14 58.88	− 1.87
	28	ι Aquilæ	E.	.	39.9	42.5	44.1	50.1	52.2	54.1	0.5	2.1	4.7	27 52.24	+ 0.27	+11.25	+11.13	18 28 3.64	− 0.10
	29	α Lyræ	E.	.	3.5	6.7	8.7	16.5	19.0	21.6	29.5	31.5	34.8	32 19.09	+ 0.03	+11.16	+11.13	18 32 30.25	− 0.03
	30	51 Cephei, S. P.	E.	.	. .	. .	46.0	4.5	21.5	39.0	56.5	. .	. .	37 21.34	+ 4.53	. .	+11.14	6 37 37.01	+ 2.16
	31	β Lyræ	E.	.	48.8	51.8	50.6	0.9	3.4	5.5	13.0	15.0	18.1	45 3.34	+ 0.06	+11.21	+11.14	18 45 14.54	− 0.05
	32	σ Sagittarii	E.	.	. .	. .	. .	. .	23.1	26.4	27.7	28.8	30.0	46 55.72	+ 0.38	+11.37	+11.14	18 47 7.54	+ 0.05
	33	ζ Aquilæ, (R.)	E.	.	58.7	1.4	3.0	9.4	11.4	13.5	19.6	21.4	24.1	59 11.39	+ 0.26	. .	+11.14	18 59 22.79	− 0.08
	34	d Sagittarii	E.	.	. .	. .	. .	. .	. .	. .	54.2	55.8	58.5	9 45.55	+ 0.33	. .	+11.14	19 9 57.02	− 0.20
19	35	α Canum Venat.	T.	.	. .	27.0	28.8	36.8	39.5	42.0	50.0	51.9	. .	49 39.42	+ 0.01	+11.33	+11.33	12 49 50.76	+ 0.01
	36	Polaris, S. P.	T.	.	. .	. .	1.0	38.0	. .	49.0	25.0	. .	51.0	11 12.88	+14.38	. .	+11.34	1 11 38.60	+ 2.11
	37	Hesperia	T.	3	32.6	35.1	37.0	43.0	45.1	47.2	53.4	55.1	57.6	41 45.12	+ 0.40	. .	+11.50	19 41 57.02	. .
	38	δ Aquilæ	T.	.	28.0	30.7	32.3	38.5	40.5	42.5	48.7	50.3	52.8	48 40.48	+ 0.28	+11.48	+11.50	19 48 52.26	+ 0.02
	39	λ Ursæ Minoris	T.	.	. .	. .	. .	20.0	11.0	58.0	46.0	. .	. .	57 10.20	−17.87	. .	+11.50	19 57 3.83	+ 2.80
	40	κ Cephei, (R.)	T.	3	15.9	28.1	35.1	. .	. .	. .	49.7	56.5	7.8	13 12.17	− 0.90	. .	+11.51	20 13 22.78	+ 0.12
	41	ε Delphini	T.	.	32.7	35.3	36.8	43.1	45.2	47.3	53.5	55.1	57.7	26 45.19	+ 0.24	+11.56	+11.51	20 26 56.94	− 0.04
	42	ι Cygni	T.	.	50.5	54.0	56.1	3.9	6.7	9.4	17.4	19.4	22.6	52 6.67	− 0.01	. .	+11.52	20 52 18.18	+ 0.06
	43	σ² Ursæ Maj., S. P.	T.	.	2.4	55.8	51.7	35.8	29.9	24.8	8.7	4.4	57.9	58 30.16	+ 1.11	. .	+11.52	8 58 42.79	+ 0.09
	44	α Cephei, (R.)	T.	.	52.4	57.8	0.8	14.0	18.3	22.6	35.7	38.9	44.5	14 18.33	− 0.17	. .	+11.53	21 14 29.69	− 0.03
	45	β Aquarii	T.	.	15.1	17.5	19.2	25.3	27.3	29.3	35.5	37.2	39.6	24 27.33	+ 0.37	+11.50	+11.54	21 24 39.24	+ 0.04
20	46	λ Ursæ Minoris	F.	.	. .	. .	. .	. .	4.0	53.0	36.5	. .	. .	57 3.90	−15.05	. .	+12.12	19 57 0.97	+ 0.59
	47	α² Capricorni	F.	.	21.2	24.1	25.6	31.8	33.8	36.0	42.3	43.8	46.2	10 33.87	+ 0.36	+12.15	+12.13	20 10 46.36	− 0.02
	48	π Capricorni	F.	.	23.2	25.9	27.2	31.7	34.0	. .	. .	. .	. .	19 36.03	+ 0.40	+12.10	+12.13	20 19 48.56	+ 0.03
	49	α Cygni	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	50	μ Aquarii	F.	.	. .	. .	. .	. .	24.3	26.3	30.5	32.0	34.6	45 22.21	+ 0.33	+12.03	+12.14	20 45 34.68	+ 0.00

6. R. A. over wire VII; bisections at set E.
10.11.16.32. R. A. over set E.
12. R. A. over set A.
18. Seems one rev. wrong.
37. Wire A used.
40.43. Bisections at sets B and D

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Simpiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	25 24	8.8	9.2	2.5	3.0	.	. .	389	. .	. .	. .	13.0	25 25 28.3	. .	+ 26.2	76 32 15.7	− 3.7
2	25 56	10.5	7.8	1.5	0.8	32	. .	. .	. .	968	825	13.0	25 57 33.9	320	+ 26.8	77 4 21.9	− 3.8
3	306 6	7.6	6.1	1.4	1.7	26	572	601	692	760	833	12.0	306 8 58.2	385	− 1 16.4	357 14 3.0	− 4.5
4	46 8	7.6	6.1	28.9	29.1	25	. .	418	. .	290	. .	12.0	46 11 31.9	389	+ 58.3	97 18 51.4	+ 0.5
5	28 32	8.7	5.3	29.4	1.3	26	776	500	. .	612	592	12.0	28 35 12.0	. .	+ 30.5	79 42 3.7	+ 0.1
6	32 44	9 23.1	20.1	16.4	14.8	24	. .	381	400	389	500	12.0	32 47 59.8	. .	+ 36.1	83 54 57.1	+ 0.1
7	51 46	3.2	1.6	25.5	25.1	26	726	492	. .	601	535	12.0	51 49 17.0	397	+ 1 11.2	102 56 49.4	− 0.3
8	57 26	8.1	6.1	29.6	0.4	21	492	. .	. .	. .	618	12.0	57 30 29.1	. .	+ 1 27.8	108 38 18.1	+ 2.8
9	27 58	5.4	1.4	26.0	26.4	25	958	905	. .	752	746	12.0	28 1 27.8	. .	+ 29.8	79 8 18.8	+ 0.7
10	48 18	10 8.0	6.4	29.9	0.8	27	. .	. .	. .	. .	873	12.0	48 20 51.2	398	+ 1 2.9	99 28 15.3	− 2.9
11	0 44	10 4.5	1.8	27.0	26.8	26	. .	. .	. .	. .	775	12.0	0 47 12.5	. .	+ 0.9	51 53 34.6	+ 1.1
12	300 46	10 1.9	29.0	24.0	25.8	18	288	361	. .	. .	. .	12.0	300 49 19.8	407	− 1 33.7	351 54 7.3	− 1.5
13	47 16	11.0	8.0	1.5	3.8	27	270	253	. .	140	098	12.0	47 19 0.7	. .	+ 1 0.7	98 26 22.6	0.0
14	22 28	1.9	0.0	23.4	23.4	27	. .	. .	. .	695	. .	12.0	22 31 1.1	. .	+ 23.0	73 37 45.3	− 8.0
15	22 28	1.9	0.0	23.4	23.4	30	. .	. .	. .	. .	350	12.0	22 30 20.2	. .	+ 22.9	73 37 4.3	− 8.0
16	6 40	11.7	10.7	5.5	2.7	26	. .	. .	. .	. .	190	12.0	6 43 13.7	. .	+ 6.5	57 49 41.4	+ 1.4
17	33 16	8.0	8.5	2.0	1.0	25	502	505	. .	470	400	12.0	33 19 28.3	. .	+ 36.3	84 26 25.8	− 0.1
18	10 30	9.0	7.2	2.0	2.0	25	. .	. .	. .	955	945	12.0	10 33 19.8	. .	+ 10.3	61 39 51.3	+14.7
19	25 42	10.4	7.7	0.8	1.2	27	320	310	. .	. .	. .	12.0	25 45 1.4	316	+ 26.6	76 51 49.2	− 3.7
20	26 14	15.0	12.5	4.8	7.0	27	. .	. .	. .	940	888	12.0	26 16 44.5	. .	+ 27.2	77 23 32.9	− 3.8
21	23 30	12.7	9.6	2.5	1.9	20	655	592	. .	532	560	12.0	23 34 41.2	. .	+ 23.9	74 41 26.3	+ 1.8
22	359 48	15.7	13.4	7.1	6.4	24	600	530	. .	442	380	12.0	359 51 37.9	. .	− 0.1	50 57 59.0	+ 0.7
23	307 28	12.6	11.5	5.5	5.8	26	960	985	905	985	898	12.0	307 31 1.5	. .	− 1 11.2	358 36 11.5	0.0
24	49 18	20.0	20.1	12.2	10.3	27	. .	041	. .	885	. .	12.0	49 20 54.6	. .	+ 1 3.7	100 28 19.5	+ 0.2
25	347 20	6.6	7.0	0.0	0.0	27	. .	020	. .	870	. .	12.2	347 23 7.6	. .	− 12.4	38 29 41.2	− 2.2
26	59 54	12.4	13.8	7.2	5.5	25	810	700	. .	600	600	12.2	59 57 20.2	. .	+ 1 35.8	106 5 17.2	− 0.2
27	312 14	12.5	11.7	6.5	6.4	23	170	220	230	220	225	12.2	312 17 58.6	360	− 1 1.0	3 23 18.8	− 0.4
28	47 10	10.5	10.8	2.8	3.3	29	. .	435	. .	335	. .	12.2	47 12 26.5	. .	+ 1 0.1	98 19 47.8	− 1.5
29	0 10	13.8	12.5	6.5	6.3	24	. .	835	. .	850	. .	12.2	0 13 33.4	. .	+ 0.2	51 19 54.8	− 2.7
30	306 6	4.5	5.0	29.5	29.1	27	452	480	460	470	470	12.2	306 9 0.7	. .	− 1 16.1	357 14 5.8	+ 1.5
31	5 36	14.0	13.2	7.2	6.3	21	. .	040	. .	000	. .	12.2	5 40 31.3	. .	+ 5.6	56 46 58.1	− 0.7
32	65 16	7.2	7.8	29.6	1.0	27	. .	. .	. .	600	445	12.2	65 18 56.7	. .	+ 2 0.5	116 27 18.4	− 0.8
33	154 44	14.8	15.0	8.0	5.0	25	. .	. .	. .	640	582	12.2	154 47 19.3	. .	− 26.2	79 21 28.1	+ 2.4
34	58 0	8.5	9.0	0.5	0.8	27	070	. .	. .	130	. .	12.2	58 3 3.4	. .	+ 1 29.1	109 10 53.7	− 0.9
35	359 48	14.8	13.3	6.1	7.8	24	. .	. .	. .	372	356	11.8	359 51 38.9	. .	− 0.1	50 58 0.0	+ 1.6
36	307 28	9.9	9.6	2.5	4.4	27	131	054	. .	100	196	11.8	307 31 1.1	273	− 1 10.9	358 36 11.4	− 0.3
37	49 50	9.4	9.3	2.5	5.5	25	670	590	. .	544	484	11.8	49 55 58.7	334	+ 1 5.6	101 3 25.5	− 2.6
38	32 44	8.0	8.0	0.0	4.3	23	. .	. .	. .	354	318	11.8	32 47 59.4	. .	+ 35.6	83 54 56.2	− 0.6
39	309 56	11.0	10.7	5.0	7.7	24	. .	506	560	594	. .	11.8	309 59 38.4	334	− 1 5.8	1 4 53.8	− 1.6
40	218 22	8.0	9.2	3.0	3.4	28	339	336	. .	374	342	11.8	218 24 42.7	. .	+ 43.8	12 40 54.7	− 1.5
41	27 58	16.7	15.6	8.6	11.6	25	. .	093	. .	990	. .	11.8	28 2 26.4	. .	+ 29.5	79 9 17.1	− 0.8
42	358 10	10.5	9.5	3.3	2.7	24	. .	318	. .	158	. .	11.8	358 13 45.5	. .	− 1.7	49 20 5.0	+ 1.4
43	286 34	12.4	12.1	6.4	7.3	28	930	910	. .	850	786	11.8	286 36 31.2	340	− 3 3.0	337 39 49.4	+ 0.9
44	203 6	10.3	12.4	6.3	3.7	31	. .	430	470	336	. .	11.8	203 7 53.4	. .	+ 23.6	27 57 4.2	− 3.3
45	44 58	11.3	11.3	4.0	4.5	25	. .	. .	. .	410	325	11.8	45 1 25.6	343	+ 55.4	96 8 42.2	− 0.5
46	309 56	6.5	4.6	0.0	0.0	24	. .	. .	826	802	832	12.6	309 59 41.0	340	− 1 5.9	1 4 56.3	+ 1.2
47	51 46	2.7	3.4	26.5	25.9	26	553	488	. .	221	272	12.6	51 49 20.0	. .	+ 1 10.3	102 56 51.5	+ 1.8
48	57 26	9.2	8.1	1.6	1.8	21	140	482	. .	378	278	12.6	57 30 31.8	343	+ 1 26.7	108 38 19.7	+ 4.4
49	354 2	8.1	6.1	29.3	29.4	28	312	030	. .	966	852	12.6	354 4 51.7	. .	− 5.7	45 11 7.2	+ 3.3
50	48 18	2.3	3.8	25.5	23.0	28	. .	. .	. .	053	004	12.6	48 20 50.6	. .	+ 1 2.2	99 28 14.0	− 4.1

No.	Barom.	External Therm.	Attached Therm.	No.	MOON'S—	
					Parallax.	Semi-diam.
	in.	°	°		′ ″	′ ″

For summary of the elements of reduction see page 3.

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Aug. 20	1	ζ Cygni	F.	.	..	..	..	..	..	..	18.9	21.0	23.8	7 9.69	+ 0.09	+12.18	+12.15	21 7 21.93	− 0.04
	2	α Cephei, (R.)	F.	.	..	..	..	..	22.0	26.1	35.0	38.3	53.6	15 17.58	− 0.12	. .	+12.15	21 15 29.61	− 0.11
	3	Thalia	F.	.	..	..	..	..	..	..	..	..	..	. . .	. .	. .	. .	. . . .	. .
	4	ω Piscium	F.	.	..	..	..	..	22.1	24.1	..	..	..	52 22.08	+ 0.24	+12.28	+12.22	23 52 34.54	− 0.05
	5	α Andromedæ	F.	.	10.7	13.8	15.5	22.3	24.8	..	34.0	35.5	38.6	1 24.69	+ 0.10	+12.22	+12.22	0 1 37.01	0.00
	6	α Cassiopeæ	F.	.	31.5	35.9	39.0	..	..	..	7.2	10.2	14.7	32 53.06	− 0.19	. .	+12.23	0 33 5.12	− 0.80
	7	Jupiter I, N.	F.	.	23.1	25.7	27.0	..	..	..	43.9	45.2	47.6	51 35.42	+ 0.25	. .	+12.24	0 51 47.91	. .
	8	Jupiter II, S.	F.	.	..	..	34.4	36.3	38.4	40.5	42.4	..	..	51 38.40	+ 0.25	.	+12.24	0 51 50.89	. .
21	9	δ Geminorum	T.	.	48.5	51.4	53.5	59.5	1.7	4.1	10.6	12.3	15.0	12 1.84	+ 0.07	+12.89	+12.89	7 12 14.80	− 0.03
	10	Venus II, S.	T.	3	8.9	11.6	13.1	19.5	21.7	23.9	30.2	31.8	34.6	23 21.70	+ 0.10	. .	+12.90	7 23 34.70	− 1.31
	11	α Canis Minoris	T.	.	58.5	1.0	2.6	8.7	10.8	12.9	18.9	20.5	23.1	32 10.78	+ 0.14	+12.97	+12.90	7 32 23.82	− 0.09
	12	β Geminorum	T.	.	47.7	50.5	52.4	59.2	1.6	3.9	10.8	12.6	15.6	37 1.59	+ 0.04	+12.89	+12.90	7 37 14.53	+ 0.01
22	13	δ Draconis	T.	.	..	..	10.9	16.4	21.6	26.7	32.3	..	..	12 21.58	− 0.33	. .	+13.15	19 12 34.40	+ 0.42
	14	δ Aquilæ	T.	.	27.3	29.9	31.5	37.5	39.6	41.7	47.9	49.4	52.0	18 39.64	+ 0.16	+13.14	+13.15	19 18 52.95	+ 0.02
	15	λ Ursæ Minoris	T.	1	..	..	..	..	53.0	46.0	31.0	..	..	56 56.07	− 9.88	. .	+13.17	19 56 59.36	+ 0.29
	16	Neptune	T.	3	54.9	56.7	58.6	4.8	6.9	8.9	15.0	16.0	19.3	5 6.86	+ 0.15	. .	+13.29	1 5 20.30	. .
	17	Polaris	T.	.	..	..	..	..	57.0	23.0	13.0	15.0	59.0	11 36.66	− 7.66	. .	+13.29	1 11 42.29	+ 3.51
	18	η Piscium	T.	.	1.8	4.2	6.0	12.4	14.5	16.6	22.8	24.5	26.9	24 14.41	+ 0.10	+13.27	+13.30	1 24 27.84	+ 0.11
24	19	Polaris, S. P.	F.	.	..	..	5.0	43.0	..	55.0	..	..	..	11 18.37	. .	. .	. .	. . . .	. .
25	20	γ Aquilæ, (R.)	E.	.	34.0	36.8	38.3	44.4	46.5	48.6	55.0	56.6	59.0	39 46.58	. .	. .	. .	. . . .	.
	21	β Aquilæ	E.	.	25.2	27.7	29.2	35.5	37.4	39.4	45.5	47.3	49.7	48 37.43	. .	. .	. .	. . . .	. .
26	22	Polaris, S. P.	T.	.	..	..	11.0	47.0	21.0	..	..	..	..	11 23.00	+ 5.54	. .	+14.81	1 11 43.35	+ 2.02
	23	α Virginis	T.	.	..	..	..	58.1	0.2	2.3	8.3	9.9	12.7	18 0.16	+ 0.14	+14.94	+14.82	13 18 15.12	− 0.11
	24	β Libræ	T.	.	9.8	10.9	11.7	12.9	15.9	..	..	..	..	9 40.72	+ 0.14	+14.78	+14.85	15 9 55.71	+ 0.06
	25	α Serpentis	T.	.	..	..	28.1	30.2	32.3	34.3	36.4	..	..	37 32.26	+ 0.09	+14.88	+14.86	15 37 47.21	− 0.02
	26	ε Serpentis	T.	.	48.1	50.7	52.3	58.4	0.5	2.5	8.6	10.2	12.7	44 0.45	+ 0.09	+14.98	+14.86	15 44 15.40	− 0.13
	27	Moon I, N.	T.	3.2	21.5	24.3	25.9	32.5	34.8	36.9	43.7	45.7	48.0	46 34.81	+ 0.18	. .	+14.90	17 46 49.89	+65.80
	28	κ Aquilæ	T.	.	22.4	25.0	26.6	..	..	..	..	..	..	29 34.76	+ 0.13	+14.92	+14.93	19 29 49.82	+ 0.01
	29	γ Aquilæ	T.	.	33.9	36.7	38.2	44.4	46.5	48.5	54.6	56.3	59.0	39 46.46	+ 0.08	+14.92	+14.93	19 40 1.47	+ 0.02
	30	β Aquilæ, (R.)	T.	3	24.8	27.4	28.8	35.0	37.1	39.2	45.1	46.8	49.3	48 37.06	+ 0.21	. .	+14.93	19 48 52.20	+ 0.01
	31	τ Aquilæ	T.	.	16.5	19.1	20.7	26.9	29.0	31.0	37.1	38.6	41.4	57 28.92	+ 0.09	+14.95	+14.94	19 57 43.95	− 0.10
	32	κ Cephei	T.	.	12.5	24.4	31.2	58.2	8.7	17.6	46.1	52.5	3.5	13 8.30	− 0.53	. .	+14.94	20 13 22.71	+ 0.45
	33	π Capricorni	T.	.	20.5	23.2	24.8	31.3	33.4	35.5	42.0	43.6	46.2	19 33.40	+ 0.17	+14.93	+14.94	20 19 48.51	+ 0.01
	34	α Cephei, (R.)	T.	3	48.6	54.0	57.4	10.5	15.1	19.2	32.5	35.2	41.1	15 14.84	+ 0.09	. .	+14.96	21 15 29.89	+ 0.24
	35	24 Ursæ Majoris, S. P.	T.	.	..	..	..	34.2	28.2	21.9	16.1	..	..	22 28.12	+ 0.41	. .	+14.96	9 22 43.49	+ 0.18
	36	Thalia	T.	3	5.6	28.4	30.4	37.3	39.6	41.7	48.7	50.5	53.7	33 39.54	+ 0.22	. .	+14.96	21 33 54.72	. .
	37	α Aquarii	T.	.	35.5	38.2	39.8	45.8	47.8	49.9	56.1	57.5	0.1	58 47.86	+ 0.11	+14.93	+14.97	21 59 2.94	+ 0.03
	38	Ceres	T.	3	27.6	30.5	32.3	39.2	41.4	43.7	50.5	52.3	55.1	12 41.40	+ 0.21	. .	+14.97	22 12 56.58	. .
	39	Anonymous	T.	3	57.6	0.1	1.7	8.0	9.8	11.9	18.4	19.9	22.0	36 10.00	+ 0.08	. .	+14.98	22 36 25.06	. .
	40	λ Aquarii	T.	.	18.8	21.5	23.0	29.1	31.2	33.3	39.6	41.1	43.6	45 31.24	+ 0.14	+14.90	+14.98	22 45 46.36	+ 0.14
	41	Doris	T.	3	31.9	34.4	36.2	42.0	44.3	46.5	52.1	53.9	56.6	55 44.21	+ 0.11	. .	+14.99	22 55 59.31	. .
	42	Jupiter I, S.	T.	3	52.5	55.2	56.7	..	..	..	13.0	14.7	17.1	51 4.87	+ 0.09	. .	+15.02	0 51 19.98	. .
	43	Jupiter II, N.	T.	3	..	..	4.0	5.9	7.9	10.0	11.9	..	..	51 7.94	+ 0.09	. .	+15.02	0 51 23.05	. .
	44	ε Piscium	T.	3	9.3	11.8	13.3	19.6	21.6	23.7	29.8	31.4	33.9	1 21.60	+ 0.09	. .	+15.03	1 1 36.72	+ 3.77
	45	Neptune	T.	3	37.5	40.0	41.4	47.4	49.7	51.6	57.7	59.5	2.0	4 49.64	+ 0.09	. .	+15.03	1 5 4.76	. .
	46	Polaris	T.	3	..	..	47.0	9.5	35.0	57.5	20.0	..	..	11 34.12	− 5.43	. .	+15.03	1 11 43.72	+ 2.04
	47	θ¹ Ceti	T.	.	0.3	2.8	4.3	10.5	12.7	14.7	21.0	22.5	25.1	17 12.66	+ 0.14	+14.97	+15.03	1 17 27.83	+ 0.06
27	48	Sun II	F.	.	..	..	..	50.3	52.3	54.4	58.5	0.2	2.6	26 50.26	+ 0.13	. .	+15.21	10 27 5.60	−64.63
	49	Polaris, S. P.	F.	.	..	..	..	43.0	20.0	56.0	32.0	..	..	11 19.25	+ 6.83	. .	+15.26	1 11 41.34	− 0.06

2.47. Wire B used.
3.36.39.41. Wire A used.
24. R. A. over set A.
32.35. Bisections at sets B and D.
39. Observed for Sappho.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Misceilan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	9 8	10.7	9.6	3.5	3.6	23	. .	338	. .	. .	152	12.6	9 12 1.0	352	+ 9.0	60 18 31.2	− 0.3
2	203 6	8.3	9.0	2.6	1.2	21	. .	. .	. .	. .	770	12.6	203 7 52.3	. .	+ 23.7	27 57 5.2	− 1.2
3	67 50	5.5	5.0	26.3	27.0	28	. .	. .	959	. .	. .	12.6	67 55 13.9	. .	+ 2 15.9	119 3 51.0	− 3.7
4	32 42	13.2	11.6	2.9	5.0	27	872	738	. .	592	028	12.6	32 44 49.8	360	+ 35.8	83 51 46.8	− 1.2
5																	
6	343 2	11.2	10.0	2.1	2.4	26	555	440	. .	693	780	12.6	343 5 10.5	372	− 16.9	34 11 14.8	+ 3.1
7	34 50	10.0	9.1	0.1	1.9	24	500	645	. .	. .	. .	12.6	34 53 43.2	. .	+ 38.9	86 0 43.3	− 1.2
8	34 50	10.0	9.1	0.1	1.9	21	. .	. .	. .	972	392	12.6	34 54 25.3	368	+ 38.9	86 1 25.4	− 1.2
9	16 36	14.6	12.9	6.9	7.3	22	. .	514	. .	412	. .	12.3	16 40 9.1	390	+ 16.7	67 46 47.0	0.0
10	22 18	12.2	9.8	3.0	3.7	25	310	266	. .	166	096	12.3	22 21 30.4	. .	+ 23.0	73 28 14.6	− 7.4
11	33 16	15.6	13.8	7.0	6.6	25	. .	222	. .	090	. .	12.3	33 19 27.5	. .	+ 36.7	84 26 25.4	− 0.3
12	10 30	9.5	8.2	2.6	2.0	27	. .	048	. .	914	. .	12.3	10 33 4.9	383	+ 10.4	61 39 36.5	− 0.3
13	331 24	10.8	8.0	3.0	2.4	23	. .	. .	321	290	386	13.0	331 28 0.9	410	− 30.6	22 33 51.5	− 0.7
14	35 58	15.0	12.5	5.0	5.3	25	. .	333	. .	250	. .	13.0	36 1 27.4	. .	+ 40.9	87 8 29.5	+ 1.5
15																	
16	33 40	10.5	8.3	1.5	2.3	26	. .	402	. .	280	200	13.0	33 43 15.5	. .	+ 37.8	84 50 14.5	− 0.2
17	310 16	5.6	4.3	29.5	29.3	29	. .	. .	140	232	. .	13.0	310 18 35.1	443	− 1 6.7	1 23 49.6	+ 2.2
18						26											
19	307 28	6.9	6.9	1.6	1.6	27	242	125	. .	176	. .	12.0	307 31 2.6	294	− 1 11.2	358 36 12.6	− 0.4
20	151 22	10 4.0	3.0	26.8	26.9	28	. .	. .	. .	060	098	12.0	151 24 51.9	. .	− 30.7	79 42 0.0	− 2.7
21	32 44	10 7.5	6.8	0.8	0.3	23	453	610	. .	520	510	12.0	32 47 59.1	. .	+ 36.2	83 55 56.5	+ 0.4
22																	
23																	
24																	
25																	
26	33 56	6.6	5.2	27.6	0.3	22	. .	489	. .	510	. .	11.4	34 0 15.5	334	+ 37.3	87 7 14.0	+ 1.1
27	58 14	9.7	9.3	1.3	2.8	30	. .	872	632	. .	. .	11.4	58 16 6.3	373	+ 1 29.9	109 23 57.4	
28	46 8	11.3	10.6	2.9	3.5	25	. .	116	. .	938	. .	11.4	46 11 32.2	390	+ 58.3	97 18 51.7	+ 1.0
29	28 32	8.5	7.3	0.2	0.5	26	. .	680	. .	520	. .	11.3	28 35 11.1	388	+ 30.4	79 42 2.7	+ 0.1
30	147 10	3.1	3.6	26.5	24.7	31	. .	405	. .	400	349	11.3	147 12 1.9	. .	− 36.0	83 54 55.3	− 0.8
31	31 54	7.8	6.8	28.8	29.7	22	. .	450	. .	338	. .	11.3	31 58 16.2	. .	+ 34.9	83 5 12.3	− 1.5
32	321 32	8.5	7.0	1.5	2.3	26	. .	372	. .	266	. .	11.3	321 35 14.9	. .	− 44.4	12 40 51.7	− 2.3
33	57 26	7.5	6.5	28.6	0.6	21	. .	. .	. .	580	. .	11.3	57 30 27.6	393	+ 1 27.7	108 38 16.5	+ 1.0
34	203 6	3.0	4.5	28.5	26.6	31	. .	816	710	736	. .	11.3	203 7 54.9	. .	+ 24.0	27 58 2.3	− 2.6
35	289 16	9.9	9.0	3.3	4.3	21	. .	023	. .	022	. .	11.3	289 20 33.6	403	− 2 38.4	340 24 16.4	+ 1.3
36	68 10	9.6	9.9	1.4	2.8	25	346	285	. .	200	120	11.3	68 16 3.9	405	+ 2 19.7	119 24 44.8	− 3.7
37	39 46	10.3	9.1	1.0	3.2	22	. .	. .	. .	679	710	11.3	39 50 7.9	. .	+ 46.8	90 57 15.9	− 0.4
38	65 36	12.0	11.9	3.8	5.6	20	202	159	. .	050	980	11.3	65 40 45.9	410	+ 2 3.7	116 49 10.8	− 4.1
39	30 10	11.5	10.2	2.0	3.6	30	. .	808	. .	743	623	11.3	30 14 39.0	413	+ 32.8	81 21 33.0	
40	47 6	11.6	11.3	3.2	3.7	26	. .	414	. .	350	. .	11.3	47 9 11.0	414	+ 1 0.6	98 16 32.8	− 0.9
41	41 20	10.5	9.5	1.6	2.7	22	576	380	. .	342	434	11.3	41 26 46.8	414	+ 49.7	92 33 57.7	− 2.7
42	35 2	9.0	7.7	0.5	1.4	26	380	330	. .	. .	. .	11.3	35 5 15.3	422	+ 39.6	86 12 16.1	− 1.2
43	35 2	9.0	7.7	0.5	1.4	29	. .	. .	. .	240	236	11.3	35 4 29.1	. .	+ 39.6	86 11 29.9	− 1.2
44	33 52	8.6	7.5	29.8	0.6	24	262	388	. .	286	336	11.3	33 55 46.0	. .	+ 37.9	85 2 45.1	−25.3
45	33 42	8.9	8.5	0.2	1.7	27	. .	266	. .	098	. .	11.3	33 45 1.4	. .	+ 37.7	84 52 0.3	− 0.2
46	310 16	9.6	8.5	3.2	4.6	29	. .	027	055	066	. .	11.3	310 18 31.2	. .	− 1 6.4	1 23 46.0	− 0.2
47	47 44	11.8	11.5	3.4	4.4	27	. .	. .	. .	924	022	11.3	47 44 15.3	433	+ 1 2.1	98 51 38.6	− 1.2
48	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . . .	324			
49	307 28	10.9	9.6	3.3	4.3	26	. .	913	808	783	840	11.6	307 31 4.7	286	− 1 11.1	358 36 14.8	+ 0.9

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
27	− 46 37.6	+ 15 0.9

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
														m. s.	s.	s.	s.	h. m. s.	s.
1868. Aug. 27	1	δ Ursæ Minoris	F.	.	. .	. .	. .	. .	. .	. .	29.0	11.5	37.5	14 44.20	− 2.66	. .	+15.35	18 14 56.89	− 0.73
	2	α Lyræ	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	3	Moon, S.	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	4	δ Draconis, (R.)	F.	.	. .	. .	7.5	12.9	18.2	23.6	29.0	. .	. .	12 18.24	− 0.01	. .	+15.36	19 12 33.59	− 0.17
	5	κ Aquilæ	F.	.	. .	. .	30.3	32.2	34.2	36.2	38.3	. .	. .	29 34.24	+ 0.19	+15.37	+15.37	19 29 49.80	0.00
	6	α Aquilæ	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
29	7	Sun, I	T.	.	. .	. .	. .	. .	57.8	0.0	6.0	7.7	10.2	31 57.84	+ 0.13	. .	+16.22	10 32 14.19	. .
	8	Sun II, N.	T.	.	54.2	56.7	58.4	4.5	6.8	8.8	15.1	16.6	19.1	34 6.69	+ 0.13	. .	+16.22	10 34 23.04	. .
	9	Polaris, S. P.	T.	.	. .	. .	11.0	47.0	23.0	56.0	. .	49.0	42.0	11 22.13	+ 6.83	. .	+16.27	1 11 45.23	+ 2.09
	10	α Virginis	T.	.	46.3	48.8	50.4	56.5	58.6	0.7	7.1	8.5	11.2	17 58.68	+ 0.21	+16.32	+16.27	13 18 15.16	− 0.04
	11	γ Aquilæ	T.	.	32.4	35.1	36.6	42.8	44.8	46.9	53.1	54.7	57.3	39 44.80	+ 0.12	+16.45	+16.40	19 40 1.38	− 0.06
	12	α Aquilæ	T.	.	54.1	56.7	58.2	4.5	6.5	8.6	14.7	16.3	18.8	44 6.49	+ 0.13	+16.36	+16.40	19 44 23.02	+ 0.05
	13	β Aquilæ	T.	.	23.3	25.9	27.5	33.5	35.6	37.7	43.9	45.4	48.1	48 35.67	+ 0.14	+16.35	+16.40	19 48 52.21	+ 0.05
	14	λ Ursæ Minoris	T.	.	. .	. .	. .	54.0	46.0	33.0	23.0	. .	. .	36 45.38	− 8.54	. .	+16.40	19 56 53.24	+ 0.43
	15	α^2 Capricorni	T.	.	17.1	19.9	21.4	27.6	29.8	31.9	38.1	39.7	42.4	10 29.77	+ 0.22	+16.35	+16.41	20 10 46.40	+ 0.06
	16	Moon I, S.	T.	3	37.1	39.6	41.3	47.9	50.2	52.3	58.9	0.5	3.2	21 50.11	+ 0.24	. .	+16.41	20 22 6.76	+64.02
	17	24 Ursæ Majoris, S. P.	T.	3	. .	. .	39.2	33.0	26.6	20.7	14.7	. .	. .	22 26.84	+ 0.56	. .	+16.43	9 22 43.83	+ 0.42
	18	ε Pegasi, (R.)	T.	3	15.9	18.5	20.1	26.2	28.4	30.4	36.4	38.1	40.7	37 28.30	+ 0.23	. .	+16.44	21 37 44.97	+ 0.05
	19	μ Capricorni	T.	.	39.2	41.9	43.5	49.8	51.9	54.1	0.3	1.8	4.6	45 51.90	+ 0.22	+16.45	+16.44	21 46 8.56	− 0.06
	20	α Aquarii, (R.)	T.	3	34.1	36.5	38.1	44.2	46.3	48.3	54.3	55.8	58.5	58 46.23	+ 0.26	. .	+16.44	21 59 2.93	+ 0.01
	21	Ceres	T.	3	52.1	54.8	56.7	3.4	5.7	8.1	14.9	16.6	19.6	10 5.77	+ 0.28	. .	+16.45	22 10 22.50	. .
	22	Sappho	T.	3	39.4	42.1	43.9	50.0	52.1	54.1	0.2	2.1	4.8	33 52.08	+ 0.13	. .	+16.45	22 34 8.66	. .
	23	λ Aquarii	T.	.	17.3	19.9	21.3	27.6	29.8	31.8	38.0	39.6	42.1	45 29.71	+ 0.20	+16.39	+16.46	22 45 46.37	+ 0.13
	24	Doris	T.	3	27.3	30.0	31.7	37.5	39.2	41.6	47.6	49.4	52.1	53 39.60	+ 0.17	. .	+16.47	22 53 56.24	. .
	25	θ Piscium	T.	.	50.2	52.7	54.3	0.4	2.6	4.6	10.6	12.2	14.7	21 2.48	+ 0.14	+16.50	+16.47	23 21 19.09	+ 0.02
	26	Jupiter, I	T.	.	. .	. .	. .	. .	. .	. .	19.1	20.5	23.1	50 10.83	+ 0.15	. .	+16.50	0 50 27.48	. .
	27	Jupiter, II	T.	.	. .	. .	9.9	11.9	14.0	16.0	18.1	. .	. .	50 13.98	+ 0.15	. .	+16.50	0 50 30.63	. .
	28	ε Piscium	T.	.	39.2	41.7	43.2	49.4	51.6	53.6	59.7	1.3	3.8	55 51.49	+ 0.14	+16.58	+16.50	0 56 8.13	− 0.13
	29	c Piscium	T.	.	8.0	10.4	12.0	18.1	20.2	22.2	28.4	29.9	32.5	1 20.19	+ 0.14	. .	+16.51	1 1 36.84	+ 3.70
	30	Neptune	T.	.	23.3	25.7	27.4	33.6	35.5	37.5	43.6	45.2	47.9	4 35.49	+ 0.14	. .	+16.51	1 4 52.14	. .
	31	Polaris	T.	.	. .	. .	. .	11.0	37.0	58.0	20.0	. .	. .	11 34.98	− 6.63	. .	+16.51	1 11 44.86	+ 1.47
31	32	12 Canum Venat.	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	33	Polaris, S. P.	F.	.	. .	. .	21.0	59.5	32.5	10.0	45.0	. .	. .	11 33.26	+ 9.10	. .	+ 0.32	1 11 42.68	− 1.41
	34	ζ Virginis	F.	.	46.0	48.5	54.0	56.0	58.0	0.2	2.3	7.9	10.3	27 58.13	+ 0.21	+ 0.36	+ 0.32	13 27 58.66	− 0.04
	35	δ Ursæ Minoris	F.	.	. .	. .	. .	22.2	58.2	33.0	8.5	. .	. .	14 58.30	− 3.53	. .	+ 0.39	55.16	− 0.75
	36	α Aquilæ	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	37	λ Ursæ Minoris	F.	.	. .	. .	. .	. .	0.0	47.0	34.0	. .	. .	56 59.63	−11.36	. .	+ 0.41	19 56 48.68	− 2.16
	38	κ Cephei	F.	.	. .	. .	. .	. .	14.5	27.9	33.0	37.3	42.0	13 22.98	− 0.82	. .	+ 0.41	20 13 22.57	+ 0.60
	39	ε Delphini	F.	.	43.9	46.4	48.2	54.3	56.3	58.4	5.0	6.3	8.7	26 56.39	+ 0.15	+ 0.38	+ 0.42	20 26 56.96	+ 0.05
	40	α Cygni	F.	.	41.0	44.6	46.9	55.9	58.5	1.2	9.9	12.0	15.6	36 58.40	− 0.05	. .	+ 0.42	20 36 58.77	− 0.02
	41	ε Pegasi, (R.)	F.	.	32.0	34.3	36.1	42.2	44.3	46.3	52.2	54.1	56.4	37 44.21	+ 0.27	. .	+ 0.43	21 37 44.91	− 0.01
	42	Moon, I	F.	.	55.2	58.0	59.5	6.0	7.8	10.3	16.6	18.3	21.0	1 8.08	+ 0.27	. .	+ 0.44	22 1 8.79	+62.45
	43	Sappho	F.	.	30.0	. .	. .	38.3	. .	46.6	. .	52.0	54.7	32 42.38	+ 0.17	. .	+ 0.45	22 32 43.00	. .
	44	Jupiter I, N.	F.	.	36.5	39.1	40.6	. .	. .	. .	57.1	58.5	0.9	49 48.78	+ 0.19	. .	+ 0.48	0 49 49.45	. .
	45	Jupiter, II	F.	.	. .	. .	47.8	49.8	51.9	54.0	56.0	. .	. .	49 51.90	+ 0.19	. .	+ 0.48	0 49 52.57	. .
	46	e Piscium	F.	.	23.8	26.5	32.0	33.9	36.1	38.4	40.2	45.8	48.3	1 36.11	+ 0.19	. .	+ 0.48	1 1 36.78	+ 3.70
Sept. 4	47	π Aquarii	H.	.	20.4	23.0	24.6	30.7	32.9	34.8	41.0	42.5	44.9	18 32.76	+ 0.26	+ 1.84	+ 1.80	22 18 34.82	− 0.05
	48	η Aquarii	H.	.	22.7	25.3	26.8	33.0	35.0	37.2	43.3	44.8	47.4	28 35.06	+ 0.27	+ 1.79	+ 1.80	22 28 37.13	+ 0.01
	49	ζ Pegasi	H.	.	41.3	43.3	45.3	51.4	53.4	55.5	1.8	3.5	6.0	34 53.56	+ 0.21	+ 1.79	+ 1.80	22 34 55.57	+ 0.05
	50	ι Cephei	H.	.	33.1	39.2	43.0	57.8	2.7	7.9	22.5	26.2	32.5	45 2.77	− 0.50	. .	+ 1.81	22 45 4.08	− 0.15

1. Observed over wires D_2, D_3, and VII.
3. N. P. D. doubtful; probably wire A used.
16. Bisections over sets B and D.
22.24.43. Wire A used.
38. R. A. over set E.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Simpiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	312 14	10 10.2	8.8	3.0	3.5	23	. .	. .	408	478	595	11.6	312 17 58.7	370	— 1 1.2	3 23 18.7	+ 1.1
2	0 10	13.1	12.4	6.0	6.3	24	888	850	. .	944	205	11.6	0 13 31.2	. .	+ 0.2	51 19 52.6	+ 2.0
3	59 2	9 7.2	5.6	29.0	28.2	17	. .	. .	. .	. .	592	11.6	59 7 58.9	. .	+ 1 33.1	110 15 53.2	
4	208 30	3.1	4.5	28.4	25.2	31	. .	248	. .	108	. .	11.6	208 22 4.3	. .	+ 30.4	22 33 46.5	— 3.1
5	46 8	10.6	10.9	4.1	3.7	24	993	035	. .	890	840	11.6	46 11 33.5	396	+ 58.3	97 18 53.0	+ 2.4
6	30 18	10.6	10.8	1.9	3.7	25	400	365	. .	335	320	11.6	30 21 27.8	. .	+ 32.8	81 28 21.8	+ 0.7
7																	
8	29 28	8.2	7.0	29.3	0.8	26	. .	. .	. .	922	808	11.3	29 31 5.9	310	+ 31.1	80 37 58.2	— 4.3
9	307 28	4.2	4.3	27.5	0.1	27	288	228	200	. .	. .	11.3	307 31 3.7	. .	— 1 10.8	358 36 14.1	— 0.5
10	49 18	9.3	8.5	0.5	1.2	27	788	. .	. .	. .	. .	11.3	49 20 52.1	271	+ 1 3.4	100 28 16.7	— 1.8
11	28 32	8.6	7.0	29.2	0.2	26	. .	. .	730	. .	. .	11.3	28 35 9.4	348	+ 30.2	79 42 0.8	— 1.5
12	30 18	12.3	10.6	3.0	4.0	25	. .	420	. .	303	. .	11.3	30 21 26.6	. .	+ 32.5	81 28 20.3	— 0.6
13	32 44	10.2	8.7	0.2	1.5	23	. .	374	. .	339	. .	11.3	32 47 59.6	. .	+ 35.7	83 54 56.5	+ 0.7
14	309 56	13.6	11.2	6.3	6.6	24	. .	604	558	588	. .	11.3	309 59 36.3	. .	— 1 6.0	1 4 51.5	— 0.9
15	51 46	13.1	11.5	4.5	4.7	25	. .	910	. .	880	. .	11.3	51 49 17.4	354	+ 1 10.5	102 56 49.1	— 0.6
16	57 8	6.9	5.7	27.5	28.6	20	. .	463	700	738	. .	11.3	57 12 44.1	354	+ 1 26.0	108 20 31.3	
17	289 16	7.3	6.2	0.3	0.8	21	. .	542	. .	386	. .	11.3	289 20 29.0	362	— 2 36.8	340 24 13.4	— 0.7
18	150 20	5.8	4.5	27.2	27.3	25	680	670	. .	. .	. .	11.3	150 21 29.0	. .	— 31.6	80 45 23.8	— 0.2
19	52 58	13.3	11.6	3.8	4.5	21	. .	596	. .	514	. .	11.3	53 2 23.9	360	+ 1 13.7	104 9 58.8	— 0.8
20	140 8	8.3	8.2	0.1	29.6	31	. .	. .	854	801	772	11.3	140 9 50.6	363	— 46.4	90 57 17.0	+ 1.0
21	65 50	4.6	4.3	26.0	28.7	23	250	250	. .	160	103	11.3	65 54 6.1	363	+ 2 3.6	117 2 30.9	— 4.0
22	30 32	9.3	7.8	0.0	0.5	32	. .	753	. .	488	. .	11.3	30 36 12.7	363	+ 32.9	81 43 6.8	— 5.2
23	47 6	11.5	10.3	2.7	3.6	26	. .	410	. .	272	. .	11.3	47 9 12.0	363	+ 1 0.0	98 16 33.2	— 0.4
24	41 38	13.4	11.4	3.8	5.7	24	818	840	. .	380	530	11.3	41 44 10.6	. .	+ 49.6	92 51 21.4	— 2.7
25	33 10	11.6	9.5	1.5	2.6	25	. .	458	. .	289	. .	11.3	33 13 27.6	362	+ 36.4	84 20 25.2	— 2.7
26	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . . .	370			
27																	
28	31 38	9.5	8.4	0.3	1.6	22	. .	. .	. .	996	864	11.3	31 41 5.3	. .	+ 34.4	82 48 0.9	— 2.1
29	33 52	9.1	7.4	29.5	0.4	24	. .	398	. .	314	. .	11.3	33 55 45.4	. .	+ 37.5	85 2 44.1	—24.9
30	33 42	7.8	8.6	28.5	29.7	21	. .	. .	. .	480	574	11.3	33 46 28.5	. .	+ 37.3	84 53 27.0	— 0.2
31	310 16	8.6	6.6	0.5	1.7	29	. .	316	281	286	. .	11.3	310 18 29.6	373	— 1 5.6	1 24 45.2	0.0
32	359 48	10.5	10.9	4.3	4.2	24	968	732	. .	670	782	12.6	359 51 37.1	. .	— 0.1	50 57 58.2	— 1.1
33	307 28	5.2	4.9	28.0	0.3	27	210	200	212	127	087	12.6	307 31 5.5	. .	— 1 10.2	358 36 16.5	+ 1.3
34	38 44	8.3	6.9	1.4	0.8	22	890	912	. .	914	900	12.6	38 48 8.6	226	+ 43.3	89 55 13.1	+ 2.6
35	312 14	14.1	12.4	12.6	12.5	23	307	311	390	400	447	12.6	312 17 53.0	292	— 1 0.1	3 23 14.1	— 3.1
36	30 18	14.0	12.4	4.8	6.2	25	. .	. .	. .	. .	160	12.6	30 21 28.0	316	+ 32.2	81 28 21.4	+ 0.1
37	309 56	4.4	2.1	27.2	28.4	25	. .	. .	168	245	203	12.6	309 59 37.4	. .	— 1 5.5	1 4 53.1	+ 1.1
38	321 32	10.4	8.2	2.7	3.5	26	. .	. .	. .	467	592	12.6	321 35 12.7	320	— 43.7	12 40 50.2	— 2.3
39	27 58	9.4	6.6	0.0	1.4	25	715	750	. .	502	515	12.6	28 1 27.2	. .	+ 29.3	79 8 17.7	+ 1.3
40	354 2	11.3	8.4	3.1	3.3	27	. .	958	. .	344	.	12.6	354 4 46.7	. .	— 5.6	45 11 2.3	+ 1.3
41	150 20	10.2	8.6	1.3	2.6	25	332	352	. .	460	272	12.6	150 23 29.7	326	— 31.3	80 43 22.8	— 0.9
42																	
43	30 46	8.5	7.0	29.1	0.9	22	662	593	. .	431	428	12.6	30 52 49.0	. .	+ 33.1	81 59 43.3	— 5.2
44	35 12	11.7	9.0	1.4	2.7	26	. .	. .	. .	602	. .	12.6	35 15 9.4	. .	+ 39.2	86 22 9.8	— 1.2
45																	
46	33 52	7.5	5.7	27.8	26.3	24	670	467	. .	447	350	12.6	35 55 47.0	. .	+ 40.2	87 2 48.4	—24.9
47	38 6	10 5.2	2.3	25.5	25.3	23	. .	440	. .	358	. .	11.7	38 10 4.9	402	+ 44.1	89 17 10.2	0.0
48	39 36	5.2	2.8	26.0	26.5	22	028	259	. .	020	122	11.7	39 40 24.1	402	+ 46.5	90 47 31.8	+ 2.2
49	28 42	4.2	1.1	23.4	24.9	30	. .	. .	. .	818	839	11.7	28 44 11.4	. .	+ 30.8	79 51 3.4	— 1.6
50	333 20	1.9	28.7	23.8	23.3	26	175	160	. .	020	012	11.7	333 23 27.5	. .	— 28.1	24 29 20.6	— 1.3

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
48	30.026	68.8	73.0

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	′ ″
3	— 46 15.3	— 14 53.4
16	— 45 18.0	— 14 45.6

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
														m. s.	s.	s.	s.	h. m. s.	s.
1868. Sept. 4	1	α Pegasi	H.	.	59.3	2.1	3.6	10.0	11.9	14.2	20.4	22.2	24.7	58 12.04	+ 0.18	+ 1.89	+ 1.81	22 58 14.03	− 0.07
	2	θ Piscium	H.	.	4.7	7.4	8.9	15.1	17.1	19.0	25.3	26.9	29.4	21 17.09	+ 0.24	+ 1.84	+ 1.81	23 21 19.14	+ 0.02
	3	λ Draconis, S. P.	H.	.	55.9	53.2	50.3	38.3	. .	. .	. .	. .	. .	23 26.48	+ 1.00	. .	+ 1.81	11 23 29.29	+ 0.37
	4	ι Piscium	H.	.	58.2	0.9	2.4	8.5	10.6	12.6	18.8	20.4	22.6	33 10.56	+ 0.24	+ 1.71	+ 1.82	23 33 12.62	− 0.06
	5	4163 Groombridge	H.	.	48.8	58.0	3.8	25.2	32.9	39.6	1.9	7.2	15.7	48 32.56	− 0.75	. .	+ 1.82	23 48 33.63	− 0.09
	6	ω Piscium	H.	.	20.4	23.0	24.8	30.7	32.9	34.9	41.0	42.5	45.0	52 32.80	+ 0.23	+ 1.78	+ 1.82	23 52 34.85	+ 0.02
	7	Jupiter I. S.	H.	.	12.2	14.7	16.3	. .	. .	. .	. .	. .	. .	48 24.44	+ 0.25	. .	+ 1.83	0 48 26.52	. .
	8	Jupiter II, N.	H.	.	. .	. .	. .	. .	. .	. .	35.6	37.1	39.7	48 27.42	+ 0.25	. .	+ 1.83	0 48 29.50	. .
	9	Moon II	H.	.	13.7	16.3	17.7	24.0	26.2	28.2	34.6	36.2	38.7	13 26.18	+ 0.25	. .	+ 1.84	1 13 28.27	−62.35
	10	Polaris	H.	.	. .	. .	. .	. .	. .	. .	. .	37.0	18.0	11 57.50	−11.35	. .	+ 1.84	1 11 47.99	+ 1.7
	11	Venus II, S.	T.	3	57.3	0.0	. .	8.0	10.1	12.3	18.7	20.3	23.0	1 10.15	+ 0.03	. .	+ 1.92	8 1 12.10	− 1.0
5	12	Sun I, S.	T.	.	21.4	24.0	25.6	31.7	33.5	35.8	41.9	43.5	46.0	57 33.71	+ 0.06	. .	+ 1.95	10 57 35.72	. .
	13	Sun II, N.	T.	.	29.8	32.4	33.8	40.0	41.9	44.0	50.3	51.9	54.5	59 42.07	+ 0.06	. .	+ 1.95	10 59 44.08	. .
	14	Mercury, (center)	T.	2	43.5	46.1	47.6	55.7	58.0	0.1	4.0	5.6	8.6	27 55.90	+ 0.06	. .	+ 1.97	12 27 57.93	. .
	15	12 Canum Venat.	T.	.	33.0	36.4	38.2	43.4	46.1	48.7	51.5	54.0	. .	49 48.76	− 0.05	+ 1.87	+ 1.97	12 49 50.68	+ 0.11
	16	Polaris, S. P.	T.	.	. .	. .	30.0	5.0	43.0	20.0	54.0	. .	. .	11 42.06	+ 5.23	. .	+ 1.98	1 11 47.27	+ 0.09
	17	α Virginis	T.	.	0.4	3.0	4.5	10.7	12.9	14.9	21.0	22.7	25.2	18 12.81	+ 0.12	+ 2.22	+ 1.98	13 18 14.91	− 0.23
	18	η Bootis	T.	.	9.3	11.9	13.5	20.0	22.3	24.3	30.8	32.4	35.2	48 22.19	+ 0.02	+ 2.08	+ 1.99	13 48 24.20	− 0.12
	19	κ Cephei	T.	.	. .	. .	. .	11.3	20.5	29.7	57.5	4.5	16.0	13 20.43	− 0.55	. .	+ 2.06	20 13 21.94	+ 0.35
	20	π Capricorni	T.	.	33.4	36.0	37.5	44.1	46.3	48.4	54.9	56.5	59.1	19 46.23	+ 0.15	+ 2.05	+ 2.06	20 19 48.44	+ 0.01
	21	ε Delphini, (R.)	T.	.	43.3	44.8	46.4	52.7	54.8	56.9	3.1	4.6	7.2	26 54.76	+ 0.23	. .	+ 2.06	20 26 57.05	+ 0.10
	22	α Cygni, (R.)	T.	.	39.5	43.1	44.9	53.5	56.5	59.5	8.4	10.3	14.0	36 56.63	+ 0.20	. .	+ 2.07	20 36 58.90	+ 0.10
	23	μ Aquarii	T.	.	20.0	22.6	24.0	30.2	32.3	34.5	40.6	42.2	44.8	45 32.36	+ 0.11	+ 2.03	+ 2.07	20 45 34.54	+ 0.02
	24	σ² Ursæ Maj., S. P.	T.	.	13.7	6.6	3.0	46.3	41.0	35.7	19.7	15.4	8.5	58 41.10	+ 0.32	. .	+ 2.07	8 58 43.40	+ 0.10
	25	ζ Cygni	T.	.	5.8	8.8	10.5	17.6	20.0	22.3	29.1	30.9	34.0	7 19.89	− 0.02	+ 2.01	+ 2.07	21 7 21.94	+ 0.05
	26	Jupiter I, S.	T.	.	49.7	52.3	53.7	. .	. .	. .	10.6	11.8	14.6	48 2.11	+ 0.07	. .	+ 2.12	0 48 4.30	. .
	27	Jupiter II, N.	T.	.	. .	. .	1.3	3.4	5.5	7.5	9.6	. .	. .	48 5.47	+ 0.07	. .	+ 2.12	0 48 7.66	. .
	28	ε Piscium	T.	.	54.0	56.5	57.9	4.0	6.2	8.3	14.4	16.0	18.6	56 6.21	+ 0.06	+ 2.08	+ 2.12	0 56 8.39	+ 0.01
	29	e Piscium	T.	.	22.6	25.0	26.5	32.7	34.6	36.7	43.0	44.5	47.1	1 34.74	+ 0.07	. .	+ 2.12	1 1 36.93	+ 3.55
	30	Neptune	T.	3	5.3	7.9	9.3	15.6	17.8	19.6	25.8	27.3	29.9	4 17.61	+ 0.07	. .	+ 2.12	1 4 19.80	. .
	31	Polaris	T.	.	. .	. .	3.0	29.0	56.0	14.0	39.0	. .	. .	11 52.60	− 5.19	. .	+ 2.12	1 11 49.53	+ 2.6
	32	Moon II, N,	T.	3	1.5	4.2	5.8	12.0	14.1	16.1	22.5	24.1	26.7	2 14.11	+ 0.06	. .	+ 2.13	2 2 16.30	−63.57
	33	ξ Ceti	T.	.	48.3	50.9	52.5	. .	. .	. .	8.9	10.5	13.0	6 0.69	+ 0.05	+ 2.07	+ 2.13	2 6 2.87	+ 0.00
6	34	Jupiter I, N.	N.	1	27.0	29.5	31.1	35.1	37.2	39.3	41.4	43.5	. .	47 39.28	+ 0.07	. .	+ 2.42	0 47 41.77	. .
	35	Jupiter II, S.	N.	2	. .	. .	. .	. .	. .	. .	50.7	52.3	54.9	47 42.58	+ 0.07	. .	+ 2.42	0 47 45.07	. .
	36	ε Piscium	N.	.	53.3	56.0	57.6	3.8	5.8	7.8	14.1	15.6	18.2	56 5.80	+ 0.06	+ 2.49	+ 2.42	0 56 8.28	− 0.12
	37	e Piscium	N.	2	22.1	24.8	26.2	32.5	34.5	36.5	42.6	44.1	46.8	1 34.46	+ 0.07	+ 2.35	+ 2.42	1 1 36.95	− 3.55
	38	Polaris	N.	2	. .	. .	. .	. .	50.5	. .	38.0	. .	. .	11 51.05	− 5.19	. .	+ 2.42	1 11 48.28	+ 0.8
7	39	Sun, S.	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	40	Sun, N.	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	41	Polaris, S. P.	F.	.	. .	. .	27.0	5.0	41.0	. .	. .	. .	. .	11 41.13	+ 5.56	. .	+ 2.52	1 11 49.21	+ 1.43
	42	α Bootis	F.	.	. .	31.8	34.1	36.2	38.5	40.8	45.0	46.4	49.2	9 36.26	+ 0.02	+ 2.50	+ 2.52	14 9 38.80	+ 0.03
	43	ε Bootis	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	44	α Lyræ	F.	.	11.8	15.0	16.7	24.4	27.2	29.9	37.7	39.7	43.0	32 27.27	− 0.05	+ 2.64	+ 2.55	18 32 29.77	− 0.0
	45	d Sagittarii	F.	.	41.3	43.9	45.5	52.4	54.2	56.4	2.9	4.9	7.4	9 54.32	+ 0.16	. .	+ 2.55	19 9 57.03	− 0.05
	46	κ Aquilæ	F.	.	34.8	37.4	38.8	44.9	47.0	49.0	55.2	56.6	59.4	29 47.01	+ 0.11	+ 2.55	+ 2.55	19 29 49.67	0.0
	47	γ Aquilæ, (R.)	F.	.	46.2	48.8	50.3	56.3	58.6	0.5	7.4	8.5	11.1	39 58.64	+ 0.23	. .	+ 2.56	19 40 1.43	+ 0.12
	48	ε Draconis	F.	.	. .	. .	. .	. .	. .	. .	0.8	5.0	12.9	48 37.01	− 0.33	. .	+ 2.56	19 48 39.24	+ 0.05
	49	τ Aquilæ	F.	.	. .	37.0	39.3	41.2	43.1	45.5	49.4	51.0	53.8	58 41.26	+ 0.06	+ 2.51	+ 2.56	19 58 43.88	− 0.04

3. R. A. observed over wires II and A_3. A_1.
7. Micrometer revolutions doubtful.
19. Bisections at sets B and D.
41. Probably one revolution wrong in N. P. D.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent. Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° ′	r. ″	″	″	″								° ′ ″		′ ″	° ′ ″	″
1	24 20	4.9	3.2	25.3	25.7	27	110	035	. .	956	932	11.7	24 23 9.6	405	+ 25.5	75 29 56.3	+ 0.3
2	33 10	2.6	1.6	24.0	23.9	26	070	982	. .	910	878	11.7	33 13 27.4	. .	+ 36.7	84 20 25.3	− 1.9
3	288 56	1.2	0.2	25.5	26.2	24	572	528	. .	. .	. .	11.7	288 59 45.8	402	− 2.41.3	340 3 25.7	− 1.0
4	33 54	3.8	2.2	24.5	24.6	23	775	700	. .	572	455	11.7	33 58 2.3	. .	+ 37.8	85 4 1.3	− 1.5
5	325 10	3.5	1.3	26.0	26.2	25	575	482	. .	. .	. .	11.7	325 13 35.6	. .	− 39.0	16 19 17.8	− 2.4
6	32 42	0.7	29.8	22.6	22.0	28	. .	. .	. .	612	582	11.7	32 44 47.7	408	+ 36.1	83 51 45.0	− 1.1
7	35 22	9 29.5	27.1	19.5	19.9	27?	. .	. .	. .	956	. .	11.7	35 25 0.0	410	+ 39.9	86 32 1.1	− 1.2
8	35 22	9 29.5	27.1	19.5	19.9	29	. :	. .	. .	. .	958	11.7	35 24 29.0	. .	+ 39.9	86 31 30.1	− 1.2
9																	
10	310 14	9 27.0	25.4	19.5	19.3	22	. .	. .	. .	512	620	11.7	310 18 27.0	. .	− 1 6.2	1 23 42.0	− 1.4
11	22 18	8.6	7.4	0.6	2.0	27	843	828	. .	632	618	11.9	22 20 54.0	406	+ 23.1	73 27 38.3	− 6.1
12	32 32	10 2.5	1.3	23.6	24.7	22	549	610	. .	. .	. .	12.0	32 36 20.9	. .	+ 35.6	83 43 17.7	− 4.7
13	32 0	0.0	28.8	21.3	21.7	21	. .	. .	. .	792	818	12.0	32 4 32.2	369	+ 34.9	83 11 28.3	− 4.6
14	34 0	1.4	29.3	21.2	22.4	23	. .	368	. .	283	294	12.0	34 3 59.6	352	+ 37.5	85 10 58.3	− 3.6
15	359 48	1.0	29.3	24.1	23.5	25	346	262	. .	148	166	12.0	359 51 40.2	. .	− 0.1	50 58 1.3	+ 0.2
16	307 28	9.8	9.5	3.8	6.0	26	720	790	742	658	708	12.0	307 31 6.5	333	− 1 11.9	358 36 15.8	− 0.9
17	49 18	15.4	14.5	7.6	7.6	27	. .	. .	. .	668	363	12.0	49 20 49.4	333	+ 1 4.2	100 28 14.8	− 3.4
18	19 46	12.5	10.3	4.5	4.0	24	. .	960	. .	830	. .	12.0	19 49 34.2	334	+ 19.9	70 50 15.3	− 1.2
19	321 32	7.9	5.5	0.5	3.3	26	. .	558	. .	561	. .	12.0	321 35 12.4	438	− 44.7	12 40 48.9	− 2.4
20	57 26	16.6	14.3	6.8	10.1	21	. .	343	. .	141	. .	12.0	57 30 25.6	438	+ 1 28.6	108 38 15.4	− 0.5
21	151 56	11.3	9.5	3.0	5.1	28	840	836	. .	680	680	12.0	151 58 35.5	. .	− 30.1	79 8 15.8	0.0
22	185 52	9.1	8.2	2.3	2.0	26	. .	. .	258	143	070	12.0	185 55 16.2	. .	+ 5.8	45 10 59.2	− 0.7
23	48 18	17.7	15.0	7.8	10.6	27	. .	382	. .	283	. .	12.0	48 20 51.8	443	+ 1 3.5	99 28 16.6	− 1.3
24	286 34	10.3	9.0	3.5	6.3	29	131	955	. .	872	790	12.0	286 36 31.5	443	− 3 7.6	337 39 45.1	+ 1.4
25	9 8	17.0	13.7	8.4	9.5	23	. .	550	. .	330	. .	12.0	9 11 52.2	. .	+ 9.2	60 18 22.6	− 2.4
26	35 24	7.3	4.3	27.1	0.5	23	550	440	. .	. .	. .	12.0	35 28 2.1	459	+ 40.5	86 35 3.8	− 1.2
27	35 24	7.3	4.3	27.1	0.5	26	. .	. .	. .	680	620	12.0	35 27 11.7	. .	+ 40.5	86 34 13.4	− 1.2
28	31 38	11.5	9.3	2.1	5.6	22	. .	840	. .	890	. .	12.0	31 42 5.9	. .	+ 35.1	82 49 2.2	0.0
29	33 52	12.5	9.7	2.6	5.5	24	. .	410	. .	290	. .	12.0	33 55 42.7	. .	+ 38.2	85 2 42.1	−24.1
30	33 46	12.5	10.0	2.0	5.6	22	. .	892	. .	. .	. .	12.0	33 50 5.9	. .	+ 38.1	84 57 5.2	− 0.2
31	310 16	8.4	6.5	1.0	4.5	29	388	368	420	398	410	12.0	310 18 28.1	460	− 1 6.9	1 23 42.4	− 0.7
32	31 48	11.1	9.1	1.4	5.5	28	533	. .	383	. .	103	12.0	31 50 42.5	. .	+ 35.3	82 57 39.0	
33	30 36	8.3	6.0	29.1	2.3	26	218	. .	. .	. .	. .	12.0	30 39 19.1	463	+ 33.7	81 46 14.0	− 1.3
34	35 26	9 17.5	14.8	9.1	9.5	.	. .	. .	. .	496	. .	12.0	35 29 49.2	385	+ 39.8	86 36 50.2	− 1.2
35	35 26	9 17.5	14.8	9.1	9.5	22	. .	. .	. .	. .	125	12.0	35 30 40.3	. .	+ 39.9	86 37 41.4	− 1.2
36	31 38	9 25.2	23.1	16.2	18.1	23	. .	980	. .	910	. .	12.0	31 42 5.8	. .	+ 34.5	82 49 1.5	− 0.6
37	33 52	9 29.8	26.8	20.2	21.7	25	258	178	. .	100	045	12.0	33 55 43.5	. .	+ 37.6	85 2 42.3	−24.1
38	310 14	10 4.5	2.4	27.1	0.0	21	. .	. .	990	. .	. .	12.0	310 18 25.3	. .	− 1 5.8	1 23 40.7	− 2.1
39	33 18	9 27.0	25.5	19.5	17.2	27	073	110	. .	. .	. .	12.5	33 21 18.1	. .	+ 36.4	84 28 15.7	− 4.8
40	32 46	9 28.2	27.5	19.9	18.4	26	. .	. .	. .	. .	325	12.5	32 49 25.3	342	+ 35.7	83 56 22.2	− 4.7
41	307 28	10 0.1	29.5	23.9	24.0	26	311	316	350	. .	. .	12.5	307 31 23.4	. .	− 1 11.2	358 36 33.4	+16.1
42	18 58	9 27.7	26.1	19.6	20.4	27	. .	. .	. .	883	116	12.5	19 1 0.6	286	+ 18.9	70 7 40.7	+ 3.2
43	11 12	1.6	0.2	23.8	24.0	26	. .	. .	. .	368	377	12.5	11 15 21.7	. .	+ 10.9	62 21 53.8	+ 0.2
44	0 10	2.3	29.8	26.5	24.4	25	770	787	. .	889	075	12.5	0 13 29.6	387	+ 0.2	51 19 51.0	+ 1.7
45	58 0	3.6	2.1	26.3	27.6	27	515	401	. .	305	302	12.5	58 3 4.3	401	+ 1 29.7	109 10 55.2	+ 0.1
46	46 8	6.1	4.9	27.7	28.7	25	. .	545	. .	552	. .	12.5	46 11 30.6	. .	+ 58.5	97 18 50.3	− 0.1
47	151 22	9 29.0	27.9	22.5	18.9	28	. .	704	. .	440	. .	12.5	151 24 51.5	410	− 30.6	79 42 0.3	− 1.2
48	328 54	9 29.6	27.1	23.7	22.9	24	. .	. .	. .	363	480	12.5	328 57 54.2	. .	− 33.8	20 3 41.6	+ 1.1
49	31 54	0.1	27.6	21.6	21.7	22	. .	. .	. .	682	818	12.5	31 58 19.0	415	+ 35.1	83 5 15.3	+ 2.5

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
45	30.038	79.0	72.0

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	′ ″
32	− 29 10.8	+ 15 11.6

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Sept. 7	1	μ Aquarii. . . .	F.	.	19.6	22.0	23.7	27.9	31.8	36.0	40.0	41.9	44.1	45 31.89	+ 0.12	+ 2.50	+ 2.56	20 45 34.57	+ 0.06
	2	σ² Ursæ Maj., S. P. .	F.	.	12.8	5.9	3.3	46.4	40.4	35.2	18.9	15.4	8.4	58 40.75	+ 0.34	. .	+ 2.56	8 58 43.65	+ 0.27
	3	ζ Cygni	F.	.	. .	14.7	17.0	19.4	21.5	24.1	28.7	30.5	33.5	7 19.35	− 0.01	+ 2.53	+ 2.56	21 7 21.90	+ 0.03
	4	α Cephei	F.	.	0.8	6.2	9.5	20.6	26.8	31.3	44.7	47.8	53.1	15 26.76	− 0.21	. .	+ 2.57	21 15 29.12	− 0.32
	5	β Cephei, (R.) . .	F.	.	. .	. .	46.2	52.4	58.9	4.9	10.8	. .	. .	26 58.67	+ 0.17	. .	+ 2.57	21 26 1.41	− 0.15
	6	π Aquarii. . . .	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	7	Doris	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	8	ι Piscium . . .	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	9	4163 Groombridge .	F.	.	. .	. .	16.9	24.0	31.3	39.2	46.7	. .	. .	48 31.65	− 0.20	. .	+ 2.58	23 48 34.03	+ 0.26
	10	ω Piscium . . .	F.	.	. .	28.1	30.2	32.3	34.3	36.4	40.6	42.0	44.5	52 32.28	+ 0.01	+ 2.55	+ 2.58	23 52 34.87	+ 0.01
	11	α Andromedæ . .	F.	. .	20.7	23.6	25.3	32.2	34.3	36.8	43.9	45.7	48.8	1 34.59	− 0.03	+ 2.72	+ 2.58	0 1 37.14	− 0.14
	12	Jupiter, S. . . .	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	13	Jupiter, N. . . .	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	14	ε Piscium . . .	F.	.	22.1	24.7	26.3	32.2	34.4	36.4	42.7	44.4	46.8	1 34.43	+ 0.01	. .	+ 2.59	1 1 37.03	+ 3.50
	15	Neptune . . .	F.	.	55.0	57.6	59.3	5.4	7.1	9.4	15.8	17.3	19.6	4 7.39	+ 0.01	. .	+ 2.59	1 4 9.99	. .
	16	Polaris	F.	.	. .	. .	. .	. .	. .	11.5	31.0	20.5	6.0	11 45.22	− 2.07	. .	+ 2.59	1 11 45.74	− 2.35
8	17	Sun I, S. . . .	H.	.	9.4	11.8	13.3	19.4	21.4	23.4	29.8	31.3	34.0	8 21.53	+ 0.09	. .	+ 2.60	11 8 24.22	. .
	18	Sun II, N. . . .	H.	.	17.6	19.9	21.6	27.7	29.9	31.8	38.0	39.7	42.2	10 29.82	+ 0.09	. .	+ 2.60	11 10 32.51	. .
	19	Mercury, (center) .	H.	.	. .	. .	. .	. .	. .	. .	4.7	6.1	8.8	46 56.46	+ 0.10	. .	+ 2.60	11 46 59.16	. .
	20	Polaris, S. P. .	H.	.	. .	. .	29.0	2.0	40.0	. .	53.0	. .	. .	11 40.55	+ 4.81	. .	+ 2.61	1 11 47.97	− 0.41
	21	δ Ursæ Minoris .	H.	.	. .	. .	. .	17.5	52.0	24.0	0.0	. .	. .	14 51.25	− 1.90	. .	+ 2.65	18 14 52.00	− 0.84
	22	α Cygni	H.	.	38.6	42.1	44.1	53.0	56.0	58.7	7.4	9.6	13.0	36 55.83	− 0.04	. .	+ 2.66	20 36 58.45	− 0.21
	23	μ Aquarii . . .	H.	.	19.5	22.1	23.6	29.8	31.9	33.9	40.0	41.6	44.0	45 31.82	+ 0.14	+ 2.56	+ 2.66	20 45 34.62	+ 0.12
	24	ν Cygni	H.	.	59.0	2.5	4.6	12.6	15.4	18.0	26.0	28.2	31.3	51 15.29	− 0.02	. .	+ 2.66	20 52 17.93	0.00
	25	61¹ Cygni	H.	.	43.6	46.9	48.7	56.7	59.3	1.7	9.6	11.5	14.8	0 59.20	− 0.01	. .	+ 2.66	21 1 1.85	+ 0.22
	26	ζ Cygni	H.	.	4.9	8.1	9.5	16.9	19.1	21.4	28.5	30.2	33.2	7 19.09	+ 0.02	+ 2.74	+ 2.66	21 7 21.77	− 0.07
	27	1 Pegasi	H.	.	46.0	48.7	50.3	56.8	59.0	1.0	7.5	9.2	11.8	15 58.92	+ 0.06	+ 2.64	+ 2.66	21 16 1.64	− 0.06
	28	β Aquarii. . . .	H.	.	24.0	26.6	28.2	34.4	36.5	38.6	44.7	46.0	48.7	24 36.41	+ 0.13	+ 2.65	+ 2.67	21 24 39.21	+ 0.02
	29	ξ Aquarii. . . .	H.	.	31.0	33.6	35.2	41.2	43.2	45.3	51.5	53.0	55.5	30 43.28	+ 0.14	+ 2.64	+ 2.67	21 30 46.09	+ 0.01
	30	Jupiter I, N. . .	H.	.	39.8	42.4	43.8	. .	. .	. .	0.3	1.7	4.3	46 52.05	+ 0.10	. .	+ 2.69	0 46 54.84	. .
	31	Jupiter II, S. . .	H.	.	. .	. .	51.1	53.1	55.3	57.2	59.3	. .	. .	46 55.21	+ 0.10	. .	+ 2.69	0 46 58.00	. .
	32	ε Piscium . . .	H.	.	22.0	24.3	25.8	32.0	34.1	36.2	42.3	43.9	46.5	1 34.12	+ 0.10	. .	+ 2.69	1 1 36.91	+ 3.49
	33	Neptune . . .	H.	.	. .	. .	. .	. .	. .	. .	30.4	31.6	32.7	4 2.90	+ 0.10	. .	+ 2.69	1 4 5.69	. .
	34	Polaris	H.	.	. .	. .	. .	24.5	52.0	13.0	38.0	. .	. .	11 50.35	− 4.70	. .	+ 2.69	1 11 48.34	− 0.32
	35	η Piscium . . .	H.	.	12.5	15.3	17.0	23.1	25.3	27.3	33.7	35.1	38.0	24 25.26	+ 0.07	+ 2.81	+ 2.70	1 24 28.03	− 0.06
10	36	Sun II	F.	.	29.2	31.4	32.9	39.0	41.2	43.3	49.3	50.9	53.2	17 41.16	+ 0.16	. .	+ 3.02	11 17 44.34	−64.11
	37	Polaris, S. P. .	F.	.	. .	. .	. .	. .	. .	24.0	. .	. .	. .	11 47.50	+ 4.31	. .	. .	. . . .	. .
	38	δ Ursæ Minoris .	H.	.	. .	. .	41.0	15.5	49.5	24.0	59.0	. .	. .	14 49.94	− 1.65	. .	+ 3.08	18 14 51.37	− 0.59
	39	1 Aquilæ, (R.) .	H.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	40	β Lyræ . . .	H.	.	56.4	. .	6.2	8.4	11.2	13.3	16.0	. .	25.6	45 11.02	+ 0.06	+ 3.10	+ 3.08	18 45 14.16	0.00
	41	50 Draconis . . .	H.	.	47.0	57.6	3.6	27.4	35.8	43.7	7.3	13.2	23.8	50 35.49	− 0.30	. .	+ 3.09	18 50 38.28	− 0.17
	42	ζ Aquilæ. . . .	H.	.	6.8	9.5	11.0	17.3	19.2	21.4	27.8	29.4	31.8	59 19.36	+ 0.12	+ 3.08	+ 3.09	18 59 22.57	+ 0.05
	43	δ Draconis . . .	H.	.	57.7	4.7	8.5	24.8	30.0	35.4	51.3	55.2	1.9	12 29.94	+ 0.37	. .	+ 3.09	19.12 33.40	+ 0.33
	44	τ Draconis . . .	H.	.	21.9	30.3	35.0	56.5	3.7	10.9	32.3	37.4	45.9	18 3.77	− 0.25	. .	+ 3.09	19 18 6.61	− 0.10
	45	α Aquilæ. . . .	H.	.	7.3	9.7	11.2	17.5	19.5	21.7	27.7	29.4	31.8	44 19.53	+ 0.14	+ 3.16	+ 3.09	19 44 22.76	− 0.06
	46	β Aquilæ. . . .	H.	.	36.5	39.2	40.4	. .	. .	. .	57.0	58.6	1.2	48 48.82	+ 0.15	+ 3.05	+ 3.09	19 48 52.06	+ 0.04
	47	τ Aquilæ. . . .	H.	.	28.3	. .	. .	. .	. .	. .	48.8	50.2	52.8	57 40.50	+ 0.15	+ 3.14	+ 3.10	19 57 43.75	− 0.13
	48	α Capricorni. . .	H.	.	6.5	9.0	10.5	14.7	16.9	. .	21.0	. .	. .	10 18.95	+ 0.21	. .	+ 3.10	20 10 22.26	. .
	49	μ Aquarii . . .	H.	.	18.8	21.5	22.9	29.3	31.3	33.4	39.6	41.0	43.7	45 31.28	+ 0.20	+ 3.03	+ 3.10	20 45 34.58	+ 0.09
	50	61¹ Cygni	H.	.	43.1	46.4	48.4	56.4	58.9	1.3	9.0	11.2	14.4	0 58.79	+ 0.04	. .	+ 3.11	21 1 1.94	+ 0.34

9. Bisections at sets B and D.
14.32. Wire A used.
15.33. Wire B used.
33. R. A. observed over wires E_2 to E_4.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	48 18	9.5	8.2	2.6	2.0	27	. .	592	. .	525	508	12.5	48 20 55.5	. .	+ 1 3.3	99 28 20.0	+ 2.1
2	286 34	0.9	29.1	24.1	26.1	29	783	779	. .	689	525	12.5	286 36 30.1	. .	− 3 6.5	337 39 44.8	+ 1.6
3	9 8	2.6	0.0	25.0	26.0	23	. .	. .	. .	. .	965	12.5	9 11 57.4	. .	+ 9.1	60 18 27.7	+ 3.1
4	336 48	10 1.1	28.6	23.6	23.7	23	. .	638	. .	393	. .	12.5	336 52 7.3	. .	− 24.1	27 58 4.4	+ 3.2
5	211 2	3.7	5.1	29.4	27.9	27	. .	114	. .	222	. .	12.5	211 5 6.0	426	+ 34.0	19 30 41.2	− 4.4
6	38 6	3.5	0.9	24.5	24.6	23	. .	326	. .	400	. .	13.0	38 10 7.9	428	+ 44.4	89 17 13.5	+ 3.5
7	42 34	3.4	1.4	25.1	26.4	20	. .	. .	. .	. .	350	13.0	42 38 52.0	. .	+ 51.9	93 46 5.1	− 2.9
8	33 54	6.0	3.4	20.9	29.2	23	. .	. .	. .	. .	402	13.0	33 58 3.2	. .	+ 38.0	85 5 2.4	0.0
9	325 10	6.1	3.5	29.0	29.9	25	178	205	. .	185	965	13.0	325 13 37.4	. .	− 39.2	16 19 19.4	+ 0.3
10	32 42	4.6	2.3	26.1	25.7	28	. .	. .	. .	533	335	13.0	32 44 48.1	428	+ 36.3	83 51 45.6	− 0.2
11	10 28	6.5	4.3	29.4	0.4	25	. .	. .	. .	202	336	13.0	10 31 33.8	429	+ 10.5	61 38 5.5	+ 2.4
12	35 30	6.9	4.8	27.0	27.8	26	532	558	. .	. .	. .	13.0	35 33 17.1	. .	+ 40.5	86 40 18.8	− 1.3
13	35 30	6.9	4.8	27.0	27.8	29	. .	. .	. .	632	569	13.0	35 32 28.3	. .	+ 40.4	86 39 29.9	− 1.3
14	33 50	2.5	0.2	23.3	23.5	26	885	873	. .	920	036	13.0	33 55 48.6	. .	+ 38.1	85 2 47.9	−23.8
15	33 50	2.5	0.2	23.3	23.5	24	. .	. .	. .	992	. .	13.0	33 51 13.5	. .	+ 38.0	84 58 12.7	− 0.2
16	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . . .	450			
17	33 40	0.9	28.5	22.0	22.0	24	783	903	. .	. .	. .	13.7	33 43 50.1	365	+ 37.3	84 50 48.6	− 4.8
18	33 8	5.1	3.4	26.0	27.5	23	. .	. .	. .	678	595	13.7	33 12 0.9	. .	+ 36.4	84 18 58.5	− 4.8
19	36 22	9 24.5	22.4	.16.1	16.0	27	. .	. .	. .	260	. .	13.7	36 25 16.7	360	+ 41.0	87 32 18.9	− 3.8
20	307 28	9 21.8	20.0	16.1	16.0	27	714	. .	950	. .	716	13.7	307 31 10.2	345	− 1 12.0	358 36 19.4	+ 1.7
21	312 14	9 22.7	21.5	16.6	15.6	24	. .	660	692	740	729	13.5	312 17 57.2	410	− 1 1.7	3 23 16.7	+ 0.4
22	354 2	24.4	25.0	18.0	16.0	29	468	380	. .	360	450	13.4	354 4 43.8	425	− 5.8	45 10 59.2	0.0
23	48 18	21.6	21.9	15.4	14.5	28	. .	863	. .	881	. .	13.4	48 20 54.1	. .	+ 1 3.3	99 28 18.6	+ 0 7
24	358 10	23.1	22.0	16.6	15.5	25	830	958	. .	785	814	13.4	358 13 39.9	420	− 1.7	49 19 59.4	+ 0.8
25	0 44	23.0	22.0	16.8	15.2	28	128	070	. .	036	056	13.4	0 47 5.8	. .	+ 0.8	51 43 27.8	0.0
26	9 8	25.0	24.1	18.6	17.4	24	670	750	. .	601	642	13.4	9 11 55.7	420	+ 9.1	60 18 26.0	+ 1.6
27	19 36	24.8	24.0	18.1	16.6	30	440	430	. .	275	220	13.4	19 38 29.3	. .	+ 20.1	70 45 10.6	+ 2.4
28	44 58	22.1	21.5	15.0	14.7	26	872	865	. .	690	708	13.4	45 1 26.1	. .	+ 56.3	96 8 43.6	+ 1.6
29	47 16	25.3	25.0	18.4	17.5	28	210	316	. .	102	106	13.4	47 19 1.4	420	+ 1 1.0	98 26 23.6	+ 1.6
30	35 32	9 22.6	21.0	14.9	14.5	27	990	. .	. .	. .	770	13.4	35 35 9.4	420	+ 40.3	86 42 10.9	− 1.3
31	35 32	9 22.6	21.0	14.9	14.5	24	. .	798	. .	745	. .	13.4	35 35 57.0	. .	+ 40.3	86 42 58.5	− 1.3
32	33 50	24.8	23.9	17.0	16.9	27	725	740	. .	630	625	13.4	33 55 44.2	. .	+ 37.9	85 2 43.3	−23.7
33	33 50	24.8	23.9	17.0	16.9	22	. .	. .	. .	. .	202	13.4	33 52 2.5	. .	+ 37.8	84 59 1.5	− 0.2
34	310 16	9 22.2	21.6	16.6	16.7	30	. .	552	498	562	482	13.4	310 18 29.0	422	− 1 6.4	1 23 43.8	+ 1.7
35	24 10	24.6	22.6	16.4	16.2	27	872	830	. .	712	684	13.4	24 13 9.5	. .	+ 25.3	75 19 56.0	− 0.7
36	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . . .	244			
37	307 28	9 28.5	27.0	21.2	22.7	27	. .	. .	. .	358	. .	11.4	307 31 8.3	226	− 1 10.3	358 36 19.2	+ 0.8
38	312 14	9 25.5	24.5	19.0	18.6	24	631	671	662	670	660	11.4	312 17 53.1	310	− 1 0.4	3 23 13.9	− 2.2
39	132 44	25.0	25.3	18.5	15.9	26	120	095	. .	042	925	11.4	132 47 32.6	. .	− 59.3	98 19 47.9	− 1.1
40	5 36	0.3	29.4	23.8	22.9	22	010	165	. .	060	035	11.4	5 40 28.2	. .	+ 5.5	56 46 54.9	− 0.8
41	323 34	26.6	25.5	21.0	20.1	27	. .	. .	. .	180	260	11.4	323 37 13.4	. .	− 40.5	14 42 54.1	− 2.9
42	25 10	28.5	27.5	20.2	19.6	29	248	300	. .	178	149	11.4	25 12 41.3	. .	+ 26.0	76 19 28.5	0.0
43	331 24	26.3	25.4	20.2	18.5	24	708	591	. .	. .	. .	11.4	331 27 54.7	328	− 30.0	22 33 45.9	− 1.0
44	325 44	25.4	24.9	19.4	18.0	27	440	390	. .	. .	. .	11.4	325 47 13.6	. .	− 37.5	16 42 57.3	− 1.3
45	30 18	24.4	23.5	16.5	16.0	26	664	650	. .	508	488	11.4	30 21 25.5	334	+ 32.5	81 28 19.2	− 0.8
46	32 44	28.0	27.2	20.0	20.0	24	150	150	. .	. .	. .	11.4	32 47 58.9	. .	+ 35.6	83 55 55.7	+ 0.7
47																	
48																	
49	48 18	2.2	1.8	24.4	24.0	28	178	168	. .	032	960	11.4	48 20 54.3	. .	+ 1 2.2	99 28 17.7	− 0.2
50	0 44	28.0	26.5	21.5	19.4	27	677	690	. .	662	760	11.4	0 47 4.9	. .	+ 0.7	51 53 26.9	− 0.4

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
5	30.050	69.5	70.0
11	30.046	71.3	69.0
17	30.130	75.9	70.5
38	29.994	79.0	79.0

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Sept. 10	1	ζ Cygni	H.	.	4.4	7.5	9.2	16.2	18.6	21.0	28.0	29.8	32.6	7 18.59	+ 0.07	+ 3.17	+ 3.11	21 7 21.77	− 0.07
	2	ι Pegasi	H.	.	45.4	48.0	49.6	56.3	58.4	0.5	7.0	8.8	11.3	15 58.37	+ 0.11	+ 3.13	+ 3.11	21 16 1.59	− 0.10
	3	β Aquarii	H.	.	23.7	26.2	27.5	33.8	35.9	38.0	44.2	45.7	48.2	24 35.91	+ 0.19	+ 3.08	+ 3.11	21 24 39.21	+ 0.03
	4	ξ Aquarii	H.	.	30.3	33.0	34.5	40.8	43.0	45.0	51.0	52.7	55.2	30 42.83	+ 0.20	+ 3.02	+ 3.11	21 30 46.14	+ 0.07
	5	Jupiter I, S.	H.	.	. .	. .	59.7	0.8	3.0	5.0	7.0	. .	. .	46 3.10	+ 0.16	. .	+ 3.14	0 46 6.40	. .
	6	Jupiter II, N.	H.	.	. .	. .	. .	. .	. .	. .	14.4	15.8	18.3	46 6.13	+ 0.16	. .	+ 3.14	0 46 9.43	. .
	7	ε Piscium	H.	.	21.4	23.9	25.5	31.5	33.7	35.8	41.9	43.3	45.9	1 33.66	+ 0.15	. .	+ 3.15	1 1 36.86	+ 3.47
	8	Neptune	H.	.	38.8	41.3	42.8	48.8	51.0	53.0	59.2	0.9	3.3	3 51.01	+ 0.15	. .	+ 3.15	1 3 54.31	. .
	9	Polaris	H.	.	. .	. .	. .	. .	51.0	14.0	41.0	. .	. .	11 52.13	− 4.16	. .	+ 3.15	1.11 51.12	+ 1.45
	10	Moon II, S.	H.	.	34.0	36.8	38.2	45.0	47.2	49.6	56.2	57.9	0.7	41 47.29	+ 0.15	. .	+ 3.24	6 41 50.68	−71.5
	11	δ Canis Majoris	H.	.	45.0	47.9	49.4	56.3	58.5	0.8	7.6	9.3	12.0	2 58.53	+ 0.37	+ 3.22	+ 3.24	7 3 2.14	0.00
11	12	Sun I, S.	F.	.	56.0	58.5	0.0	6.3	8.2	10.3	16.5	18.0	20.6	19 8.27	+ 0.21	. .	+ 3.29	11 19 11.77	. .
	13	Sun II, N.	F.	.	. .	. .	. .	16.4	18.5	20.4	24.8	26.3	28.7	21 16.47	+ 0.21	. .	+ 3.29	11 21 19.97	. .
	14	α Virginis	F.	.	59.0	1.6	3.2	9.4	11.5	13.5	20.2	21.2	24.8	18 11.50	+ 0.28	+ 3.33	+ 3.32	13 18 15.10	0.00
	15	α Libræ	F.	.	. .	. .	. .	. .	. .	0.5	1.7	2.8	3.8	43 32.05	+ 0.31	+ 3.36	+ 3.34	14 43 35.70	− 0.04
	16	α Ophiuchi	H.	.	33.8	36.5	37.9	44.2	46.3	48.5	54.7	56.3	58.9	28 46.34	+ 0.17	+ 3.40	+ 3.37	17 28 49.88	− 0.02
	17	μ Sagittarii	H.	.	37.4	40.2	41.8	48.3	50.5	52.5	59.2	1.0	3.6	5 50.50	+ 0.34	+ 3.40	+ 3.38	18 5 54.22	− 0.04
	18	η Serpentis	H.	.	14.9	17.5	18.8	22.9	. .	. .	. .	. .	. .	14 27.10	+ 0.24	+ 3.29	+ 3.38	18 14 30.72	+ 0.10
	19	ι Aquilæ	H.	.	. .	8.1	9.5	12.2	21.7	27.8	28.7	29.6	30.8	27 59.85	+ 0.27	+ 3.33	+ 3.38	18 28 3.50	+ 0.00
	20	β Lyræ	H.	.	55.9	59.2	1.0	8.3	10.9	13.1	20.6	22.0	45.2	45 10.69	+ 0.07	+ 3.40	+ 3.39	18 45 14.15	− 0.01
	21	ζ Aquilæ	H.	.	6.3	9.0	10.5	17.0	19.0	21.0	27.5	28.9	31.4	59 18.96	+ 0.17	+ 3.42	+ 3.39	18 59 22.52	+ 0.01
	22	d Sagittarii	H.	.	40.2	42.9	44.6	51.0	53.2	55.3	2.0	3.5	6.3	9 53.22	+ 0.33	. .	+ 3.40	19 9 56.95	− 0.07
	23	δ Draconis	H.	.	. .	. .	24.4	29.8	35.2	40.5	51.3	55.3	1.7	12 29.90	− 0.28	. .	+ 3.40	19 12 33.02	0.00
	24	κ Aquilæ	H.	.	33.6	36.3	37.8	44.0	46.0	48.0	54.3	55.8	58.3	29 46.01	+ 0.27	+ 3.34	+ 3.40	19 29 49.68	+ 0.0
	25	γ Aquilæ	H.	.	45.3	47.9	49.3	55.5	57.7	59.8	5.9	7.4	10.2	39 57.67	+ 0.18	+ 3.41	+ 3.41	19 40 1.26	+ 0.01
	26	α Aquilæ	H.	.	6.7	9.4	10.9	17.0	19.2	21.2	27.4	29.0	31.5	44 19.14	+ 0.20	+ 3.48	+ 3.41	19 44 22.75	− 0.06
	27	ε Hydræ	T.	.	31.4	34.0	35.6	41.7	43.8	45.8	51.9	53.5	56.2	39 43.77	+ 0.27	+ 3.64	+ 3.65	8 39 47.69	+ 0.01
	28	α Hydræ	T.	.	. .	58.3	0.2	2.4	4.5	6.6	10.6	12.4	14.9	21 2.45	+ 0.36	+ 3.67	+ 3.66	9 21 6.47	− 0.01
12	29	Sun I, N.	T.	.	31.0	. .	35.3	41.1	43.6	45.5	51.6	. .	56.0	22 43.44	+ 0.28	. .	+ 3.69	11 22 47.41	. .
	30	Sun II, S.	T.	.	39.3	41.9	43.3	49.5	51.5	53.7	59.6	1.1	3.6	24 51.50	+ 0.28	. .	+ 3.69	11 24 55.47	. .
	31	Polaris, S. P.	T.	.	. .	. .	. .	4.0	35.5	13.0	50.5	. .	. .	11 37.30	+10.40	. .	+ 3.72	1 11 51.42	+ 1.17
	32	α Virginis	T.	.	. .	. .	6.8	8.8	11.0	. .	. .	. .	. .	18 10.94	+ 0.37	+ 3.80	+ 3.72	13 18 15.03	− 0.07
	33	η Bootis	T.	.	7.3	10.1	11.6	18.2	20.3	22.5	29.0	30.6	33.4	48 20.33	+ 0.19	+ 3.70	+ 3.73	13 48 24.25	0.00
	34	α Bootis	T.	.	. .	24.6	26.0	32.7	34.9	37.0	43.6	45.0	. .	9 34.83	+ 0.18	+ 3.71	+ 3.73	14 9 38.74	+ 0.03
16	35	Polaris, S. P.	T.	.	. .	. .	. .	. .	. .	. .	10.0	6.0	22.0	11 44.73	+ 3.71	. .	. .	. . .	. .
	36	η Bootis	T.	.	6.4	9.0	10.6	17.3	19.5	21.6	28.0	29.6	32.3	48 19.37	− 0.04	. .	. .	. . .	. .
	37	δ Ursæ Minoris	H.	.	. .	. .	36.5	12.5	46.0	19.0	55.0	. .	. .	14 45.97	− 1.57	. .	+ 4.80	18 14 49.20	− 0.2
	38	α Lyræ	H.	.	9.2	12.4	14.4	22.3	24.9	27.4	35.2	37.3	40.6	32 24.86	− 0.09	+ 4.87	+ 4.81	18 32 29.58	− 0.0
	39	β Lyræ	H.	.	53.7	57.8	59.5	6.8	9.4	11.8	19.2	21.0	23.7	45 9.32	− 0.07	+ 4.79	+ 4.81	18 45 14.06	+ 0.04
	40	50 Draconis	H.	.	45.4	55.7	1.2	25.6	33.6	41.9	5.8	12.2	22.0	50 33.71	− 0.39	. .	+ 4.81	18 50 38.13	+ 0.22
	41	ζ Aquilæ	H.	.	5.2	7.7	9.2	15.7	17.7	19.7	26.0	27.5	30.3	59 17.67	− 0.03	+ 4.85	+ 4.81	18 59 22.45	0.00
	42	d Sagittarii	H.	.	39.2	41.7	43.3	49.9	52.2	54.2	0.7	2.4	5.1	9 52.08	+ 0.05	. .	+ 4.81	19 9 56.94	0.00
	43	δ Aquilæ	H.	.	35.7	38.2	39.5	45.8	47.7	49.9	56.1	57.7	0.0	18 47.84	0.00	+ 4.78	+ 4.81	19 18 52.65	+ 0.04
	44	κ Aquilæ	H.	.	32.7	35.2	36.8	42.8	44.8	46.8	52.9	54.7	57.2	29 44.88	+ 0.02	+ 4.63	+ 4.81	19 29 49.71	+ 0.1
	45	γ Aquilæ	H.	.	43.9	46.5	48.0	54.3	56.4	58.3	4.6	6.3	8.7	39 56.33	− 0.02	+ 4.87	+ 4.81	19 40 1.12	− 0.06
	46	α Aquilæ	H.	.	5.5	8.0	9.6	15.8	18.0	19.9	26.3	27.7	30.0	44 17.87	− 0.01	+ 4.88	+ 4.81	19 44 22.67	− 0.06
	47	β Aquilæ	H.	.	34.8	37.4	38.9	45.0	47.2	49.2	55.3	57.0	59.3	48 47.12	− 0.01	+ 4.82	+ 4.81	19 48 51.92	− 0.01
	48	α^1 Capricorni	H.	.	4.8	7.4	9.0	15.4	17.4	19.5	25.9	27.4	30.0	10 17.42	+ 0.03	. .	+ 4.82	20 10 22.27	. .
	49	Venus II, S.	F.	.	0.0	2.7	4.3	10.7	12.8	14.8	21.2	22.9	25.4	43 12.76	− 0.01	. .	+ 4.99	8 43 17.74	− 0.02
	50	α Leonis	F.	.	3.2	6.0	7.5	13.8	15.7	17.8	24.0	25.7	28.4	1 15.79	0.00	+ 5.00	+ 5.00	10 1 20.79	− 0.01

7. Wire A used.
14. Seems one rev. wrong in N. P. D.
15. R. A. over last four wires of E and VII.
19. R. A. over sets D and E.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	9 8	25.5	23.5	18.2	17.1	24	631	802	. .	640	618	11.4	9 11 53.9	. .	+ 9.0	60 18 24.1	+ 0.1
2	19 36	0.2	29.5	23.2	23.0	30	082	945	. .	815	800	11.4	19 38 28.4	. .	+ 19.8	70 45 9.4	+ 1.5
3	44 58	22.0	21.6	14.9	14.0	26	793	760	. .	645	642	11.4	45 1 25.4	. .	+ 55.4	96 8 42.0	0.0
4	47 16	29.5	0.4	23.1	22.4	27	872	839	. .	738	692	11.4	47 19 0.7	348	+ 1 0.0	98 26 21.9	− 0.1
5	35 38	29.0	28.4	21.0	20.2	26	. .	. .	. .	422	. .	11.4	35 41 22.5	. .	+ 40.0	86 48 23.7	− 1.3
6	35 38	29.0	28.4	21.0	20.2	29	. .	. .	. .	. .	500	11.4	35 40 35.0	. .	+ 40.0	86 47 36.2	− 1.3
7	33 50	27.5	27.2	19.5	18.5	27	430	400	. .	350	272	11.4	33 55 44.5	. .	+ 37.5	85 2 43.2	−23.5
8	33 50	27.5	27.2	19.5	18.5	28	. .	. .	. .	320	352	11.4	33 52 54.5	370	+ 37.5	84 59 52.2	− 0.2
9	310 16	9 26.9	25.6	20.5	20.6	30	. .	. .	220	320	315	11.4	310 18 25.5	370	− 1 5.6	1 23 41.1	− 0.3
10	20 4	8.5	6.5	29.4	0.0	11	. .	945	890	. .	. .	11.4	20 10 55.8	366	+ 20.5	71 17 37.5	
11	64 58	1.6	0.6	23.9	25.2	20	. .	780	. .	865	. .	11.4	65 2 45.6	. .	+ 1 59.0	116 11 5.8	+ 3.4
12	34 48	10 17.2	16.1	8.0	8.8	.	380	768	. .	. .	. .	11.0	34 52 20.7	. .	+ 38.0	85 59 19.9	− 5.0
13	34 16	11.6	10.0	1.5	3.1	21	. .	. .	. .	831	. .	11.0	34 20 20.2	. .	+ 37.3	85 27 18.7	− 4.9
14	49 18	9.8	8.0	0.2	28.3	.	. .	. .	. .	. .	. .	11.0	49 21 6.9	. .	+ 1 3.3	100 28 31.4	+13.5
15																	
16	26 10	10 3.7	2.2	23.5	25.9	26	. .	122	. .	049	. .	11.0	26 13 23.9	300	+ 27.0	77 20 12.1	+ 0.7
17	59 54	9 28.5	28.1	18.8	20.2	26	590	680	. .	555	500	11.0	59 57 21.0	. .	+ 1 34.7	111 5.16.9	− 0.7
18	41 44	0.4	0.2	21.3	22.0	22	358	335	. .	. .	. .	11.0	41 48 24.9	310	+ 49.1	92 55 35.2	− 1.0
19	47 10	0.6	0.6	21.4	23.0	29	. .	. .	. .	. .	915	11.0	47 12 26.4	320	+ 59.4	98 19 47.0	− 2.0
20	5 36	1.5	0.1	23.1	23.5	21	940	050	. .	940	930	11.0	5 40 28.9	. .	+ 5.5	56 46 55.6	0.0
21	25 10	0.6	0.0	20.9	22.0	29	210	170	. .	030	900	11.0	25 12 41.2	. .	+ 26.0	76 20 28.4	− 0.1
22	58 0	28.1	28.5	19.1	19.8	27	. .	560	. .	550	. .	11.0	58 3 6.2	. .	+ 1 28.4	109 10 55.8	+ 0.6
23	331 24	29.5	28.2	21.0	21.7	24	. .	. .	. .	240	320	11.0	331 27 55.5	335	− 30.1	22 33 46.6	− 0.1
24	46 8	27.5	27.5	18.4	19.1	26	040	000	. .	870	870	11.0	46 11 31.7	. .	+ 57.7	97 18 50.6	+ 0.2
25	28 32	0.8	29.0	20.6	21.5	27	. .	. .	. .	135	160	11.0	28 35 10.0	. .	+ 30.2	79 42 1.4	+ 0.2
26	30 18	2.6	1.9	22.9	24.9	25	. .	980	. .	920	. .	11.0	30 21 26.8	. .	+ 32.4	81 28 20.4	+ 0.5
27	31 56	20.1	18.4	10.8	12.2	26	. .	343	. .	258	. .	12.0	31 59 5.1	350	+ 34.6	93 6 0.9	0.0
28	46 54	16.2	14.5	5.6	6.6	22	. .	. .	. .	928	941	12.0	46 58 0.1	342	+ 59.2	98 5 20.5	+ 1.0
29	34 40	10 11.1	9.6	29.5	2.5	26	208	224	. .	. .	. .	12.0	34 43 17.6	. .	+ 38.0	85 50 16.8	− 5.0
30	35 12	11.5	10.0	1.0	2.7	26	. .	. .	. .	618	589	12.0	35 15 8.0	304	+ 38.8	86 22 8.0	− 5.0
31	307 28	10.9	9.8	1.6	6.0	26	. .	688	670	708	573	12.0	307 31 7.6	. .	− 1 10.5	358 36 18.3	− 0.9
32	49 18	15.8	15.3	6.6	8.3	26	488	488	. .	. .	. .	12.0	49 21 4.9	248	+ 1 3.1	100 28 29.2	+11.4
33	19 46	13.1	11.2	2.9	4.5	24	. .	863	. .	738	. .	12.0	19 49 35.6	243	+ 19.5	70 56 16.3	− 0.9
34	18 58	16.5	14.9	6.1	7.9	26	. .	960	. .	. .	. .	12.0	19 1 0.0	255	+ 18.7	70 7 39.9	+ 1.9
35																	
36																	
37	312 14	9 23.1	21.9	15.9	16.1	24	720	745	770	765	780	11.6	312 17 54.4	468	− 1 2.5	3 23 13.1	− 2.8
38	0 10	25.0	23.0	17.0	17.2	26	660	530	. .	420	445	11.6	0 13 26.6	. .	+ 0.2	51 19 48.0	− 0.6
39	5 36	24.5	22.6	17.2	16.1	22	580	705	. .	550	535	11.6	5 40 26.9	. .	+ 5.7	56 47 53.8	− 1.5
40	323 34	22.8	22.0	16.2	16.0	27	. .	. .	. .	430	480	11.6	323 37 14.1	. .	− 42.1	14 42 53.2	− 3.1
41	25 10	26.0	24.0	17.4	17.6	22	715	640	. .	485	470	11.6	25 12 38.7	482	+ 26.9	76 20 26.8	− 1.3
42	58 0	9 21.8	20.9	13.9	14.5	28	390	420	. .	. .	. .	11.6	58 3 0.9	. .	+ 1 31.4	109 10 53.5	− 1.9
43	35 58	9 21.1	19.5	12.7	12.6	27	000	990	. .	860	830	11.6	36 1 24.1	. .	+ 41.6	87 8 26.9	+ 0.1
44	46 9	22.0	21.5	14.4	15.0	26	580	278	. .	395	320	11.6	46 11 30.3	. .	+ 59.6	97 18 51.1	+ 0.7
45	28 32	22.0	20.9	14.0	14.7	28	085	020	. .	880	865	11.6	28 35 6.8	. .	+ 31.2	79 41 59.2	− 1.7
46	30 18	22.2	21.4	14.4	14.7	26	810	840	. .	755	725	11.6	30 21 24.6	. .	+ 33.5	81 28 19.3	− 0.4
47	32 44	23.0	22.3	14.4	15.5	24	680	710	. .	605	585	11.6	32 47 56.6	. .	+ 36.9	83 54 54.7	− 0.1
48	51 46	22.5	21.9	14.8	15.7	36	. .	330	. .	105	. .	11.6	51 46 59.3	500	+ 1 12.7	102 54 33.2	
49	23 18	6.4	2.0	29.2	0.5	28	285	296	. .	014	061	12.1	23 20 50.1	568	+ 25.2	74 27 36.5	− 5.4
50	26 12	6.4	3.3	29.3	1.4	21	173	287	. .	055	088	12.1	26 16 36.7	547	+ 28.7	77 23 26.6	− 1.1

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
16	30.104	82.5	80.5
37	30.120	63.0	69.5

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
10	− 20 14.0	− 16 10.1

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Sept. 17	1	κ Aquilæ	H.	.	32.3	34.7	36.3	42.6	44.7	46.3	52.7	54.3	56.7	29 44.51	+ 0.06	+ 4.95	+ 5.01	19 29 59.58	+ 0.06
	2	γ Aquilæ	H.	.	43.5	46.0	47.7	53.9	56.2	58.0	4.5	6.0	8.6	39 56.04	+ 0.01	+ 5.12	+ 5.01	19 40 1.06	− 0.10
	3	α Aquilæ	H.	.	5.4	7.9	9.2	15.6	17.6	19.6	25.9	27.4	30.0	44 17.62	+ 0.01	+ 5.10	+ 5.01	19 44 22.64	− 0.06
	4	λ Ursæ Minoris . .	H.	.	. .	. .	54.0	42.0	35.0	17.0	10.0	. .	. .	52 32.00	− 8.96	. .	+ 5.01	19 56 28.05	− 5.38
	5	α^2 Capricorni . .	H.	.	28.4	31.2	32.5	39.0	40.9	43.3	49.3	51.2	53.6	10 41.04	+ 0.08	+ 5.01	+ 5.01	20 10 46.13	0.00
	6	ε Delphini . . .	H.	.	39.2	41.7	43.3	49.6	51.9	53.8	0.0	1.6	4.0	26 51.68	0.00	+ 5.05	+ 5.02	20 26 56.70	− 0.02
	7	α Cygni	H.	.	36.4	39.8	42.1	50.8	53.5	56.7	4.7	6.9	10.5	36 53.49	− 0.14	+ 5.14	+ 5.02	20 36 58.37	− 0.12
	8	μ Aquarii. . . .	H.	.	17.2	19.8	21.2	27.3	29.4	31.2	37.9	39.2	41.8	45 29.44	+ 0.07	+ 4.93	+ 5.02	20 45 34.53	+ 0.11
	9	ν Cygni	H.	.	56.7	0.0	1.8	10.0	12.8	15.6	23.5	25.5	29.2	52 12.79	− 0.11	. .	+ 5.02	20 52 17.70	− 0.09
	10	61^1 Cygni	H.	.	41.3	44.6	46.4	54.0	56.8	59.5	7.4	9.5	12.4	0 56.88	− 0.10	. .	+ 5.02	21 1 1.80	+ 0.29
	11	ζ Cygni	H.	.	2.6	5.8	7.5	14.6	16.6	19.2	26.0	27.9	30.8	7 16.78	− 0.06	+ 5.03	+ 5.03	21 7 21.75	− 0.01
	12	ι Pegasi	H.	.	43.5	46.3	47.9	54.3	56.6	58.6	5.6	6.9	9.4	15 56.57	− 0.02	+ 4.99	+ 5.03	21 16 1.58	− 0.04
	13	β Aquarii . . .	H.	.	21.8	24.4	25.9	32.0	34.0	36.3	42.4	43.9	46.3	24 34.11	+ 0.06	+ 4.96	+ 5.03	21 24 39.20	+ 0.07
	14	ξ Aquarii . . .	H.	.	28.7	31.2	32.7	38.9	40.8	42.9	49.2	50.9	53.5	30 40.98	+ 0.07	+ 4.97	+ 5.03	21 30 46.08	+ 0.06
	15	ε Pegasi	H.	.	27.5	30.0	31.5	37.7	39.8	41.9	47.9	49.4	52.0	37 39.74	+ 0.01	+ 5.07	+ 5.03	21 37 44.78	− 0.06
	16	Jupiter, I. S. . .	H.	.	45.7	48.2	49.7	. .	. .	. .	6.9	7.9	10.3	42 58.12	+ 0.03	. .	+ 5.06	0 43 3.21	. .
	17	Jupiter II, N. . .	H.	.	. .	. .	57.4	59.2	1.4	3.3	5.3	. .	. .	43 1.32	+ 0.03	. .	+ 5.06	0 43 6.41	. .
	18	e Piscium . . .	H.	.	50.0	52.4	53.8	0.0	2.2	4.2	10.0	12.0	14.3	1 2.10	+ 0.03	. .	+ 5.06	1 1 7.19	+ 3.40
	19	Neptune . . .	H.	.	58.7	1.3	3.0	9.3	11.4	13.4	19.3	20.9	23.5	3 11.20	+ 0.03	. .	+ 5.06	1 3 16.29	. .
	20	Polaris	H.	.	. .	. .	9.0	34.0	0.0	22.0	48.0	. .	. .	11 58.94	− 6.96	. .	+ 5.07	1 11 57.05	+ 5.00
	21	Venus II, S. . .	T.	.	. .	48.8	50.6	57.0	58.9	1.0	7.5	9.0	. .	46 58.97	− 0.18	. .	+ 5.21	8 47 4.00	− 0.91
	22	α Hydræ . . .	T.	3	49.0	51.7	53.3	59.4	1.5	3.6	9.8	11.4	13.9	21 1.51	− 0.18	+ 5.26	+ 5.22	9 21 6.55	− 0.04
	23	α Leonis	T.	.	3.4	5.8	7.4	13.6	15.8	17.8	24.0	25.7	28.4	1 15.77	− 0.18	+ 5.22	+ 5.23	10 1 20.82	0.00
18	24	Sun I, S. . . .	T.	.	. .	5.5	7.2	13.1	15.0	17.2	23.3	25.0	. .	44 15.19	− 0.18	. .	+ 5.25	11 44 20.26	. .
	25	Sun II, N. . .	T.	.	. .	13.6	14.8	21.2	23.3	25.3	31.5	33.0	. .	46 23.24	− 0.18	. .	+ 5.25	11 46 28.31	. .
	26	Polaris, S. P. .	T.	.	. .	. .	39.0	. .	53.0	29.0	4.0	. .	. .	11 51.70	− 0.58	. .	+ 5.26	1 11 56.38	+ 4.13
	27	η Bootis	T.	.	. .	. .	. .	19.0	21.0	23.5	27.7	29.5	32.0	48 19.08	− 0.18	+ 5.27	+ 5.27	13 48 24.17	− 0.03
	28	ε Bootis	T.	.	54.5	57.6	59.3	6.0	8.2	10.8	17.6	19.4	22.3	39 8.41	− 0.18	+ 5.26	+ 5.28	14 13 13.51	+ 0.01
	29	λ Ursæ Minoris .	H.	.	. .	. .	39.0	28.0	17.0	5.0	55.0	. .	. .	56 17.22	+ 0.28	. .	+ 5.34	19 56 22.84	+ 0.42
	30	μ Aquarii . . .	H.	.	17.0	19.4	21.0	27.3	29.4	31.3	37.5	39.0	41.7	45 29.29	− 0.18	+ 5.32	+ 5.35	20 45 34.46	+ 0.05
	31	61^1 Cygni	H.	.	40.9	44.3	46.2	54.0	56.8	59.3	7.0	9.0	12.2	0 56.63	− 0.18	. .	+ 5.35	21 1 1.80	+ 0.31
	32	ζ Cygni	H.	.	2.4	5.3	7.2	14.2	16.5	18.8	26.0	27.8	30.7	7 16.54	− 0.18	+ 5.38	+ 5.35	21 7 21.71	− 0.04
	33	ι Pegasi	H.	.	43.4	46.0	47.5	54.2	56.4	58.5	5.0	6.6	9.3	15 56.32	− 0.18	+ 5.39	+ 5.35	21 16 1.49	− 0.12
	34	β Cephei	H.	.	20.8	27.6	31.8	50.3	56.2	2.0	19.4	24.3	31.6	26 56.00	− 0.17	. .	+ 5.35	21 27 1.18	0.00
	35	11 Cephei	H.	.	21.2	28.8	33.3	52.0	58.2	4.2	23.0	27.4	34.8	39 58.10	− 0.16	. .	+ 5.36	21 40 3.30	− 0.23
	36	μ Capricorni . .	H.	.	50.7	53.7	55.0	1.3	3.4	5.6	11.8	13.4	16.0	46 3.43	− 0.18	+ 5.27	+ 5.36	21 46 8.61	+ 0.04
	37	9 Draconis, S. P. .	H.	.	30.8	19.3	14.0	47.9	38.9	30.6	1.5	57.3	46.6	23 38.54	− 0.22	. .	+ 5.36	10 23 43.68	− 0.16
	38	α Piscis Australis .	H.	.	4.6	7.5	9.3	16.5	18.8	21.0	28.3	30.0	32.8	50 18.76	− 0.18	+ 5.34	+ 5.37	22 50 23.95	+ 0.02
	39	α Pegasi	H.	.	56.2	59.0	0.4	6.8	8.9	10.9	17.3	19.0	21.6	58 8.83	− 0.18	+ 5.49	+ 5.37	22 58 14.02	− 0.11
	40	4163 Groombridge . .	H.	.	45.5	54.4	59.7	21.7	29.0	36.3	58.2	3.3	12.2	48 28.92	− 0.16	. .	+ 5.37	23 48 34.13	+ 0.25
	41	α Andromedæ . .	H.	.	18.3	21.2	23.0	29.9	32.2	34.4	41.4	43.2	46.2	1 32.20	− 0.18	− 5.35	+ 5.38	0 1 37.40	+ 0.03
	42	4 Draconis, S. P. .	H.	.	47.6	34.3	27.3	7.0	56.7	46.2	36.4	27.0	. .	5 46.68	− 0.24	. .	+ 5.38	12 5 51.82	− 0.27
	43	κ Draconis, S. P. .	H.	.	18.0	9.8	5.8	46.7	41.0	34.8	16.3	12.0	4.2	27 40.96	− 0.23	. .	+ 5.38	12 27 46.11	− 0.32
	44	Jupiter I, N. . .	H.	.	18.2	20.6	22.2	. .	. .	. .	38.5	39.9	42.6	42 30.33	− 0.18	. .	+ 5.38	0 42 35.53	. .
	45	Jupiter II, S. . .	H.	.	. .	. .	29.6	31.6	33.7	35.6	37.6	. .	. .	42 33.62	− 0.18	. .	+ 5.38	0 42 38.82	. .
	46	e Piscium . . .	H.	.	19.8	22.3	23.7	29.9	31.8	34.0	40.2	41.7	44.3	1 31.97	− 0.18	. .	+ 5.39	1 1 37.18	+ 3.39
	47	Neptune . . .	H.	.	53.3	55.9	57.3	3.4	5.5	7.4	13.7	15.3	17.6	3 5.49	− 0.18	. .	+ 5.39	1 3 10.70	. .
	48	Polaris	H.	.	. .	. .	. .	27.0	54.0	13.0	33.0	. .	. .	11 50.20	+ 0.18	. .	+ 5.39	1 11 55.77	+ 3.32
	49	Venus II, S. . .	F.	.	. .	. .	43.0	45.2	47.2	49.2	51.4	. .	. .	50 47.20	− 0.25	. .	+ 5.49	8 50 52.44	− 0.90

47. Wire A used.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	46 8	9 18.2	17.0	12.0	12.0	27	050	035	. .	855	805	12.9	46 11 26.7	565	+ 1 0.7	97 18 48.6	− 1.8
2	28 32	21.2	19.4	14.1	13.9	28	165	150	. .	100	990	12.9	28 35 6.7	. .	+ 31.7	79 41 59.6	− 1.3
3	30 18	22.9	21.4	15.3	15.6	26	970	150	. .	970	780	12.9	30 21 22.4	. .	+ 34.1	81 28 17.7	− 1.9
4	309 56	9 18.4	16.1	13.6	13.2	26	250	275	300	390	370	12.9	309 59 37.5	. .	− 1 9.4	1 5 49.3	+ 1.2
5	51 46	20.8	19.9	14.3	14.0	27	790	775	. .	750	760	12.9	51 49 11.5	570	+ 1 14.0	102 56 46.7	− 3.3
6	27 58	21.0	18.4	13.5	13.6	27	290	260	. .	210	155	12.9	28 1 20.6	. .	+ 31.1	79 8 12.9	− 1.9
7	354 2	19.5	16.7	13.4	12.5	30	040	770	. .	670	700	12.9	354 4 42.9	. .	− 6.1	45 10 58.0	+ 0.7
8	48 19	22.0	21.1	15.8	15.1	29	170	210	. .	125	000	12.9	48 20 49.5	. .	+ 1 5.7	99 28 16.4	− 1.6
9	358 10	22.2	19.8	15.0	15.1	25	985	000	. .	090	095	12.9	358 13 37.6	590	− 1.8	49 19 57.0	+ 0.3
10	0 44	18.9	16.5	12.9	11.8	28	590	380	. .	290	400	12.9	0 47 4.3	. .	+ 0.8	51 53 26.3	+ 0.4
11	9 8	22.4	19.5	15.4	15.0	25	340	160	. .	130	005	12.9	9 11 51.0	. .	+ 9.5	60 18 21.7	− 1.2
12	19 36	22.8	21.4	16.2	15.6	30	790	680	. .	600	460	12.9	19 38 26.2	. .	+ 20.9	70 45 8.3	+ 1.4
13	44 58	18.5	17.0	11.3	11.8	27	260	330	. .	300	145	12.9	45 1 21.9	. .	+ 58.6	96 8 41.7	− 0.2
14	47 16	20.0	19.0	13.5	13.0	28	930	840	. .	750	640	12.9	47 18 56.8	. .	+ 1 3.5	98 26 21.4	− 0.6
15	29 34	22.1	19.8	14.4	14.6	30	755	770	. .	630	590	12.9	29 36 26.5	598	+ 33.3	80 43 21.0	− 1.0
16	35 58	9 15.5	12.0	8.0	9.5	26	420	280	. .	. .	. .	12.9	36 1 40.4	630	+ 43.0	87 8 44.6	− 1.3
17	35 58	9 15.5	12.0	8.0	9.5	29	. .	. .	. .	280	290	12.9	36 0 53.4	. .	+ 43.0	87 7 57.6	− 1.3
18	33 52	9 17.1	14.8	10.5	10.8	26	080	190	. .	. .	. .	12.9	33 55 41.6	. .	+ 39.8	85 2 42.6	−23.1
19	33 52	9 17.1	14.8	10.5	10.8	20	. .	730	. .	755	. .	12.9	33 57 3.0	. .	+ 39.8	85 4 4.0	− 0.2
20	310 14	9 11.6	10.2	7.5	7.5	23	410	360	395	325	405	12.9	310 18 27.0	632	− 1 9.7	1 24 38.5	− 0.4
21	23 24	9 29.2	25.9	22.6	23.3	20	950	990	. .	942	. .	12.8	23 28 48.1	588	+ 25.4	74 35 34.7	− 5.4
22	46 54	10 12.2	9.3	6.0	8.0	23	. .	704	. .	558	. .	12.8	46 57 53.1	578	+ 1 2.5	98 5 16.8	− 1.9
23	26 12	10.7	6.9	4.0	6.0	21	. .	090	. .	. .	. .	12.8	26 16 34.8	563	+ 28.8	77 23 24.8	− 0.8
24	37 30	11.4	8.2	4.0	6.1	23	184	290	. .	. .	. .	12.8	37 34 2.2	. .	+ 44.3	88 41 7.7	− 5.3
25	36 58	10 13.2	10.1	6.2	8.0	22	. .	. .	. .	652	624	12.8	37 2 6.3	529	+ 43.6	88 9 11.1	− 5.3
26																	
27	19 46	13.7	11.3	8.5	9.3	24	864	. .	. .	. .	. .	12.8	19 49 34.0	. .	+ 20.6	70 56 15.8	− 2.0
28	11 12	11.8	9.4	5.3	7.3	25	. .	. .	. .	870	789	12.8	11 15 19.2	478	+ 11.4	62 21 51.8	− 3.1
29	309 56	9 12.4	9.6	6.4	9.4	26	695	670	700	675	630	13.0	309 59 36.7	605	− 1 10.0	1 4 47.9	0.0
30	48 18	9 12.0	10.8	5.9	8.1	29	850	765	. .	700	645	12.9	48 20 49.4	618	+ 1 6.6	99 28 17.2	− 0.8
31	0 44	14.6	12.4	9.6	9.8	28	935	770	. .	840	720	12.9	0 47 1.6	. .	+ 0.8	51 53 23.6	− 2.1
32	9 8	18.1	14.5	11.0	12.5	25	. .	250	. .	410	. .	12.9	9 11 52.4	. .	+ 9.6	60 18 23.2	+ 0.5
33	19 36	17.4	15.0	10.7	11.0	31	205	130	. .	940	980	12.9	19 38 25.1	. .	+ 21.1	70 45 7.4	+ 0.6
34	328 52	15.0	11.6	8.7	10.6	29	440	450	. .	. .	. .	12.9	328 54 54.2	630	− 35.7	20 0 39.7	− 2.5
35	328 8	15.0	11.5	8.8	11.0	26	652	795	. .	. .	. .	12.9	328 11 35.9	. .	− 36.7	19 17 20.4	− 1.7
36	52 58	12.6	10.0	4.9	8.0	23	890	960	. .	860	790	12.9	53 2 19.4	640	+ 1 18.7	104 9 59.3	− 0.6
37	295 16	9 9.5	7.0	4.0	6.5	29	380	475	. .	400	240	12.9	295 18 57.3	638	− 2 4.6	346 23 13.9	+ 2.0
38	69 6	12.5	11.1	5.6	8.3	24	810	990	. .	840	825	12.9	69 10 3.6	. .	+ 2 34.7	120 18 59.5	+ 0.3
39	24 20	16.6	14.0	9.2	11.1	28	560	440	. .	350	330	12.9	24 23 6.3	640	+ 26.9	76 29 54.4	+ 0.4
40	325 10	13.2	11.0	8.5	9.5	27	. .	005	. .	920	. .	12.9	325 13 31.8	650	− 41.3	16 19 11.7	− 3.3
41	10 28	9.5	6.8	3.4	5.5	27	590	445	. .	370	370	12.9	10 31 27.8	. .	+ 11.0	61 38 0.0	− 0.7
42	297 12	10.5	8.7	6.4	8.0	23	470	540	. .	. .	. .	12.9	297 16 24.1	. .	− 1 54.8	348 20 50.5	− 0.7
43	289 24	9 9.0	8.0	5.4	6.6	27	760	960	. .	850	730	12.9	289 27 19.2	642	− 2 46.4	340 30 54.0	+ 0.4
44	36 0	10.5	8.0	4.0	6.3	25	440	625	. .	. .	. .	12.9	36 3 56.9	. .	+ 43.2	87 11 1.3	− 1.3
45	36 0	10.5	8.0	4.0	6.3	22	. .	. .	. .	205	410	12.9	36 4 44.1	. .	+ 43.2	87 11 48.5	− 1.3
46	33 52	11.5	9.8	5.1	6.9	26	. .	580	. .	490	. .	12.9	33 55 41.3	. .	+ 39.9	85 2 42.4	−23.0
47	33 52	11.5	9.8	5.1	6.9	28	. .	980	. .	865	. .	12.9	33 57 38.9	. .	+ 40.0	85 4 40.1	− 0.2
48	310 14	9 9.0	6.5	3.5	5.3	23	. .	660	645	655	595	12.9	310 18 26.0	650	− 1 9.9	1 23 37.3	− 1.3
49	23 44	10.7	7.9	5.5	7.0	26	556	498	. .	325	320	12.9	23 37 11.8	584	+ 25.6	74 43 58.6	− 5.5

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
5	30.304	52.9	62.5
29	30.412	52.2	60.5

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Sept. 18	1	α Leonis	F.	.	3.0	5.7	6.9	13.3	15.4	17.5	23.9	25.4	28.2	1 15.48	− 0.26	+ 5.60	+ 5.50	10 1 20.72	− 0.11
	2	γ¹ Leonis	F.	.	23.5	16.2	17.8	34.5	36.7	38.9	45.2	47.0	49.6	12 36.60	− 0.23	+ 5.47	+ 5.50	10 12 41.87	+ 0.05
19	3	Sun I, S. . . .	F.	.	38.0	40.8	42.2	48.3	50.5	52.7	58.9	0.1	2.5	47 50.44	− 0.29	. .	+ 5.52	11 47 55.67	. .
	4	Sun II, N. . . .	F.	.	. .	54.5	56.6	58.4	0.6	2.6	6.8	8.3	11.0	49 58 58	− 0.29	. .	+ 5.52	11 50 3.82	. .
	5	Mercury, (center) .	F.	.	52.6	55.0	56.3	2.9	4.7	6.7	12.9	14.5	17.0	52 4.73	− 0.31	. .	+ 5.53	12 52 9.95	+ 0.02
	6	Polaris, S. P. . .	F.	.	. .	. .	. .	21.0	58.0	29.0	10.0	. .	. .	11 56.05	− 8.20	. .	+ 5.53	1 11 53.38	+ 0.72
	7	α Virginis . . .	F.	.	1.2	4.0	5.3	10.0	12.1	14.2	. .	. .	. .	18 13.92	− 0.32	+ 5.47	+ 5.53	13 18 15.13	+ 0.07
	8	α Bootis	F.	.	20.4	23.0	24.5	31.2	33.2	35.7	42.0	43.8	46.3	9 33.34	− 0.23	+ 5.53	+ 5.54	14 9 38.65	+ 0.01
	9	σ Sagittarii . . .	H.	.	48.0	51.0	52.5	59.4	1.7	4.0	10.8	12.5	15.4	47 1.70	− 0.37	+ 5.64	+ 5.56	18 47 6.89	− 0.10
	10	ζ Aquilæ. . . .	H.	.	4.4	7.2	8.7	15.0	17.0	19.1	25.4	27.0	29.6	59 17.04	− 0.25	+ 5.61	+ 5.56	18 59 22.35	− 0.01
	11	d Sagittarii . . .	H.	.	38.7	41.5	43.0	49.5	51.7	53.8	0.3	2.0	4.7	9 1.69	− 0.35	+ 5.47	+ 5.56	19 9 56.90	+ 0.01
	12	τ Draconis . . .	H.	.	18.3	27.1	31.9	53.4	0.4	7.2	28.3	33.6	42.3	18 0.28	+ 0.32	. .	+ 5.56	19 18 6.16	+ 0.12
	13	κ Aquilæ . . .	H.	.	32.0	34.6	36.0	42.2	44.2	46.1	52.3	54.0	56.6	29 44.22	− 0.32	+ 5.59	+ 5.56	19 29 49.46	− 0.03
	14	α Aquilæ, (R.) . .	H.	.	4.6	7.2	8.8	. .	. .	18.9	21.1	. .	. .	44 16.97	0.00	. .	+ 5.57	19 44 22.54	− 0.15
	15	λ Ursæ Minoris . .	H.	.	. .	. .	40.0	28.0	16.0	4.0	. .	. .	. .	56 15.35	+ 9.79	. .	+ 5.57	19 56 30.71	− 0.67
	16	α² Capricorni . .	H.	.	28.4	30.9	32.5	38.7	40.9	43.0	49.4	50.9	53.5	10 40.91	− 0.33	+ 5.52	+ 5.57	20 10 46.15	+ 0.05
	17	π Capricorni . .	H.	.	30.1	32.6	34.3	40.9	43.0	45.3	51.6	53.3	55.9	19 43.00	− 0.35	+ 5.62	+ 5.57	20 19 48.22	− 0.05
	18	μ Aquarii . . .	H.	.	16.8	19.5	21.0	27.0	29.2	31.2	37.4	39.0	41.5	45 29.18	− 0.32	+ 5.56	+ 5.58	20 45 34.44	+ 0.04
	19	ν Cygni	H.	.	56.2	59.5	1.6	9.7	12.4	14.9	23.2	25.2	28.4	52 12.34	− 0.14	. .	+ 5.58	20 52 17.78	+ 0.02
	20	61¹ Cygni	H.	.	40.9	44.0	45.9	53.9	56.5	58.9	6.6	8.6	11.9	0 56.36	− 0.16	. .	+ 5.58	21 1 1.78	+ 0.30
	21	ζ Cygni	H.	.	2.2	5.0	6.9	13.9	16.2	18.7	25.6	27.5	30.4	7 16.27	− 0.19	+ 5.64	+ 5.58	21 7 21.66	− 0.07
	22	ι Pegasi	H.	.	43.2	45.9	47.5	54.0	56.2	58.3	4.8	6.4	8.9	15 56.13	− 0.23	+ 5.62	+ 5.58	21 16 1.48	− 0.12
	23	β Aquarii . . .	H.	.	21.6	24.2	25.5	31.7	33.9	36.0	41.9	43.7	46.0	24 33.83	− 0.31	+ 5.59	+ 5.59	21 24 39.11	0.00
	24	ξ Aquarii . . .	H.	.	28.5	31.0	32.5	38.8	40.8	42.8	49.0	50.8	53.2	30 40.82	− 0.32	+ 5.49	+ 5.59	21 30 46.09	+ 0.08
	25	η Aquarii . . .	H.	.	19.7	22.2	23.6	29.9	32.0	33.9	40.0	41.6	44.0	28 31.88	− 0.30	+ 5.53	+ 5.60	22 28 37.18	+ 0.07
	26	ζ Pegasi	H.	.	37.8	40.3	41.7	48.0	50.2	52.2	58.4	0.0	2.5	34 50.12	− 0.27	+ 5.71	+ 5.60	22 34 55.45	− 0.07
	27	ι Cephei	H.	.	29.3	35.1	38.4	53.4	58.5	3.3	18.2	21.7	27.9	44 58.42	+ 0.11	. .	+ 5.60	22 45 4.13	+ 0.01
	28	α Piscis Australis .	H.	.	4.6	7.5	9.3	16.5	18.7	21.0	28.2	30.0	33.0	50 18.76	− 0.38	+ 5.54	+ 5.60	22 50 23.98	+ 0.05
21	29	Sun I	T.	.	48.9	51.3	52.9	59.2	1.0	3.1	9.3	10.8	13.5	55 1.09	− 0.39	. .	+ 6.04	11 55 6.74	+64.09
	30	Polaris, S. P. . .	T.	.	23.0	41.0	42.0	49.0	. .	. .	. .	. .	. .	12 2.88	−11.19	. .	+ 6.05	1 11 57.74	+ 4.19
	31	η Bootis	T.	.	. .	. .	14.0	16.2	18.4	20.4	27.0	28.6	31.2	48 18.33	− 0.31	+ 6.13	+ 6.06	13 48 24.08	− 0.10
	32	α Bootis	T.	.	19.9	22.5	24.0	30.7	32.9	35.1	41.6	43.2	45.9	9 32.87	− 0.30	+ 6.06	+ 6.06	14 9 38.63	+ 0.01
	33	ε Bootis	T.	.	53.7	56.8	58.4	5.3	7.5	9.7	16.9	18.6	21.5	39 7.60	− 0.26	+ 6.11	+ 6.07	14 39 13.41	+ 0.05
	34	α Scorpii	T.	.	1.3	4.2	5.8	12.9	15.2	17.3	24.0	25.8	28.6	21 15.01	− 0.51	+ 6.03	+ 6.08	16 21 20.58	+ 0.07
	35	Moon I, N. . .	T.	3.2	47.3	50.3	51.8	58.3	0.6	2.8	9.4	11.0	13.9	31 0.60	− 0.47	. .	+ 6.08	16 31 6.21	+66.92
	36	κ Ophiuchi . . .	T.	.	8.3	10.9	12.4	18.6	20.7	22.8	29.0	30.6	33.0	51 20.70	− 0.35	+ 6.00	+ 6.09	16 51 26.44	+ 0.12
	37	d Sagittarii . . .	H.	.	38.1	40.9	42.4	49.0	51.0	53.2	59.7	1.4	3.8	9 51.06	− 0.48	+ 6.19	+ 6.14	19 9 56.73	− 0.13
	38	τ Draconis . . .	H.	.	17.3	26.0	31.4	52.2	58.4	5.8	27.3	32.7	41.4	17 59.17	+ 0.46	. .	+ 6.14	19 18 5.77	− 0.12
	39	κ Aquilæ. . . .	H.	.	31.4	33.9	35.5	41.7	43.7	45.9	52.0	53.5	56.0	29 43.73	− 0.43	+ 6.16	+ 6.14	19 29 49.44	− 0.02
	40	γ Aquilæ. . . .	H.	.	42.9	45.5	47.0	53.2	55.1	57.3	3.5	5.0	7.8	39 55.26	− 0.35	+ 6.20	+ 6.14	19 40 1.05	− 0.05
	41	α Aquilæ . . .	H.	.	4.4	7.0	8.5	14.8	16.9	18.9	25.2	26.7	29.2	44 16.84	− 0.36	+ 6.19	+ 6.14	19 44 22.62	− 0.04
	42	λ Ursæ Minoris. .	H.	.	. .	. .	. .	24.0	11.0	57.0	48.0	. .	. .	56 11.35	+13.42	. .	+ 6.14	19 56 30.91	+ 0.22
	43	π Capricorni . .	H.	.	29.6	32.5	33.9	40.5	42.5	44.6	51.2	52.8	55.5	19 42.57	− 0.48	+ 6.15	+ 6.15	20 19 48.24	0.00
	44	ε Delphini . . .	H.	.	38.4	41.0	42.6	48.7	50.8	52.9	59.0	0.8	3.2	26 50.82	− 0.34	+ 6.20	+ 6.15	20 26 56.63	− 0.04
	45	μ Aquarii . . .	H.	.	16.3	18.9	20.4	26.7	28.7	30.8	37.0	38.7	41.2	45 28.74	− 0.43	+ 6.08	+ 6.15	20 45 34.46	+ 0.09
	46	ν Cygni	H.	.	55.6	58.9	0.9	9.0	11.8	14.4	22.6	24.6	28.0	52 11.75	− 0.18	. .	+ 6.15	20 52 17.73	+ 0.01
	47	61¹ Cygni	H.	.	40.3	43.5	45.4	53.2	55.5	58.4	6.2	8.2	11.3	0 55.78	− 0.20	. .	+ 6.15	21 1 1.73	+ 0.28
	48	ζ Cygni	H.	.	1.6	4.6	6.5	13.6	16.0	18.2	25.2	27.0	29.9	7 15.84	− 0.25	+ 6.10	+ 6.16	21 7 21.75	+ 0.05
	49	ι Pegasi	H.	.	42.7	45.4	46.7	53.5	55.6	57.8	4.4	6.0	8.7	15 55.64	− 0.31	+ 6.17	+ 6.16	21 16 1.49	− 0.09

5. Chronograph record appears 1m. wrong.
36. Seems 1 rev. wrong.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	26 12	3.6	0.2	27.5	0.7	21	415	395	. .	262	248	12.9	26 16 36.9	549	+ 28.6	77 23 26.7	+ 1.0
2	18 20	9.1	5.4	2.9	6.1	27	498	316	. .	278	379	12.9	18 22 59.3	546	+ 19.3	69 29 39.8	+ 0.9
3	37 54	5.6	1.8	27.7	0.7	26	325	416	. .	. .	. .	12.9	37 57 19.9	. .	+ 45.0	89 4 26.1	− 5.4
4	37 22	7.1	4.0	0.0	3.2	25	. .	. .	. .	544	608	12.9	37 25 27.8	520	+ 44.1	88 32 33.1	− 5.3
5	44 38	9 29.1	25.5	22.9	24.8	25	989	995	. .	814	780	12.9	44 41 31.9	480	+ 56.4	95 48 49.5	− 4.7
6	307 28	3.0	1.2	28.3	0.3	. .	649	683	684	613	. .	12.9	307 31 15.0	. .	− 1 14.2	358 36 22.0	+ 0.5
7	49 18	0.6	28.0	23.8	26.0	28	754	782	. .	. .	. .	12.9	49 20 47.4	. .	+ 1 6.3	100 28 14.9	− 2.6
8	18 58	9 29.6	25.6	23.4	27.0	28	073	974	. .	941	015	12.9	19 0 59.1	460	+ 19.6	70 7 39.9	+ 1.1
9	65 16	9 12.9	11.6	7.1	8.0	29	. .	. .	. .	410	365	12.6	65 18 52.6	525	+ 2 4.8	116 27 18.6	− 0.4
10	25 10	15.5	12.1	7.9	9.0	30	390	365	. .	205	150	12.6	25 12 39.1	. .	+ 27.2	76 19 27.5	− 0.5
11	58 0	12.0	9.7	5.5	6.4	29	040	145	. .	955	950	12.6	58 3 0.8	. .	+ 1 32.3	109 10 54.3	− 1.2
12	325 44	10.7	8.5	6.0	6.5	28	500	420	. .	. .	. .	12.6	325 47 12.8	. .	− 39.3	16 50 54.7	− 2.4
13	46 8	11.6	10.0	5.5	6.1	27	215	305	. .	165	205	12.5	46 11 28.5	. .	+ 1 0.2	97 18 49.9	− 0.5
14																	
15	309 56	10.0	8.0	6.5	7.0	26	940	925	890	870	. .	12.5	309 59 34.0	535	− 1 8.9	1 4 46.3	− 1.4
16	51 46	13.2	11.7	7.5	8.3	28	065	075	. .	885	870	12.5	51 49 15.0	. .	+ 1 13.5	102 56 49.7	− 0.3
17	57 26	13.5	11.0	6.5	8.0	23	380	495	. .	430	300	12.5	57 30 25.3	. .	+ 1 30.6	108 38 17.1	+ 0.6
18	48 18	14.5	12.6	8.2	8.8	29	605	550	. .	440	370	12.5	48 20 51.0	. .	+ 1 4.9	99 28 17.1	− 0.9
19	358 10	14.0	10.5	7.4	8.0	26	730	710	. .	560	570	12.5	358 13 36.2	540	− 1.8	29 19 55.6	− 0.7
20	0 44	11.5	9.2	7.2	5.7	29	085	040	. .	830	880	12.5	0 47 2.2	. .	+ 0.8	51 53 24.2	− 1.3
21	9 8	9 13.8	10.6	8.4	8.5	25	760	730	. .	660	580	12.5	9 11 50.4	. .	+ 9.4	60 18 21.0	− 1.6
22	19 36	15.1	12.6	9.4	8.9	31	215	090	. .	040	040	12.5	19 38 26.2	. .	+ 20.6	70 45 8.0	+ 1.3
23	44 58	16.0	13.5	9.5	10.5	27	520	375	. .	355	300	12.5	45 1 21.8	. .	+ 58.0	96 8 41.0	− 0.9
24	47 16	13.0	11.9	7.5	7.5	29	275	205	. .	085	040	12.5	47 18 57.2	545	+ 1 2.8	98 26 21.2	− 0.8
25	39 36	12.2	9.5	5.0	6.2	23	920	985	. .	850	830	12.5	39 40 19.5	552	+ 48.1	90 47 28.8	0.0
26	28 42	13.5	10.2	5.7	8.0	32	420	410	. .	265	220	12.5	28 44 9.3	. .	+ 31.8	79 51 2.3	− 1.1
27	333 20	11.5	8.1	6.1	7.0	27	860	785	. .	. .	. .	12.5	333 23 21.7	. .	− 29.1	24 29 13.8	− 2.8
28	69 6	13.5	11.3	6.7	7.5	24	655	705	. .	530	610	12.5	69 10 6.5	560	+ 2 31.7	120 18 59.4	0.0
29																	
30																	
31	19 46	13.5	10.8	6.3	7.7	24	. .	750	. .	602	. .	11.2	19 49 35.0	443	+ 20.4	70 56 16.6	− 1.6
32	18 58	9 23.1	20.3	16.5	18.0	28	. .	. .	. .	410	368	11.2	19 0 57.3	442	+ 19.5	70 7 38.0	− 1.1
33	11 12	13.8	12.4	8.5	9.7	25	. .	600	. .	463	. .	11.2	11 15 20.4	. .	+ 11.3	62 21 52.9	− 2.5
34	64 56	11.6	9.6	4.0	7.2	24	188	. .	. .	. .	. .	11.0	64 59 42.0	443	+ 2 0.8	116 8 4.0	− 3.9
35	56 6	11.0	8.3	3.4	5.5	26	. .	058	111	018	. .	11.0	56 9 15.8	446	+ 1 24.3	107 17 1.3	
36	29 14	15.5	11.8	8.4	10.3	22	. .	436	. .	240	. .	11.0	29 18 8.5	446	+ 31.8	80 25 1.5	+12.9
37	58 0	10 3.5	2.4	26.2	27.7	27	610	515	. .	520	470	11.0	58 3 0.5	505	− 1 31.8	109 10 53.5	− 2.0
38	325 44	4.0	1.7	28.0	0.0	26	. .	765	. .	. .	. .	11.0	325 47 13.3	. .	− 39.1	16 52 55.4	− 2.5
39	46 8	8.3	6.4	0.0	2.7	25	405	550	. .	450	400	11.0	46 11 28.0	. .	+ 1 0.0	97 18 49.2	− 1.2
40	28 32	3.5	1.0	25.0	27.0	27	365	345	. .	180	075	11.0	28 35 6.0	. .	+ 31.4	79 41 58.6	− 2.1
41	30 18	6.3	3.6	28.0	0.5	26	240	015	. .	945	950	11.0	30 21 21.4	520	+ 33.7	81 28 16.3	− 3.1
42	309 56	3.7	0.9	28.1	0.1	25	. .	280	315	350	350	11.0	309 59 33.8	. .	− 1 8.6	1 4 46.4	− 0.9
43	57 26	3.9	0.8	25.9	28.1	22	030	140	. .	075	020	11.0	57 30 24.3	. .	+ 1 30.4	108 38 15.9	− 0.7
44	27 58	6.0	2.5	28.1	0.6	26	235	145	. .	000	950	11.0	28 1 21.1	530	+ 30.7	79 8 14.0	− 0.6
45	48 18	7.5	5.5	29.9	2.5	28	125	000	. .	890	835	11.0	48 20 50.1	. .	+ 1 5.0	99 28 16.3	− 1.7
46	358 10	6.6	3.2	29.0	2.4	24	925	075	. .	025	980	11.0	358 13 36.9	540	− 1.1	49 19 57.0	+ 1.0
47	0 44	4.5	1.5	28.0	29.4	27	580	350	. .	. .	. .	11.0	0 47 2.2	. .	+ 0.8	51 53 24.2	− 0.9
48	9 8	5.4	1.9	28.0	0.4	24	110	315	. .	205	140	11.0	9 11 50.5	. .	+ 9.4	60 28 21.1	− 1.2
49	19 36	6.4	3.3	28.9	0.5	29	850	800	. .	695	590	11.0	19 38 24.8	. .	+ 20.7	70 45 6.7	+ 0.2

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
9	30.358	60.8	62.5
37	30.058	57.8	63.5

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
35	− 46 47.5	+ 15 25.9

D TE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Sept. 21	1	β Aquarii . . .	H.	.	21.2	23.8	25.0	31.4	33.3	35.4	41.5	43.0	45.7	24 33.37	− 0.42	+ 6.14	+ 6.16	21 24 39.11	+ 0.02
	2	ξ Aquarii . . .	H.	.	27.9	30.4	31.8	38.3	40.5	42.3	48.4	50.2	52.6	30 40.27	− 0.43	+ 6.13	+ 6.16	21 30 46.00	+ 0.01
25	3	Sun, N. . . .	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
28	4	Sun, S.	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	5	Sun II, N. . . .	F.	.	. .	. .	. .	. .	. .	. .	16.4	18.3	20.8	22 20.40	− 0.12	. .	+ 7.50	12 22 27.78	−64.27
	6	Polaris, S. P. . .	F.	.	. .	. .	. .	. .	48.0	35.0	12.0	. .	. .	11 58.10	− 5.57	. .	+ 7.51	1 12 0.04	+ 4.61
	7	Mercury, (center) .	F.	.	38.1	40.4	42.1	48.4	50.5	52.6	59.4	0.6	3.3	38 50.60	− 0.13	. .	+ 7.51	13.38 57.98	+ 0.03
	8	α Bootis	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	9	ε Bootis	F.	.	. .	. .	. .	. .	. .	. .	15.1	17.1	19.5	39 5.92	− 0.07	+ 7.52	+ 7.52	14 39 13.37	− 0.01
	10	δ Aquilæ. . . .	H.	.	32.6	35.1	36.7	43.0	44.9	46.8	53.0	54.6	57.6	18 44.92	− 0.11	+ 7.60	+ 7.62	19 18 52.43	+ 0.03
	11	κ Aquilæ. . . .	H.	.	29.4	32.1	33.6	39.9	42.0	44.0	50.0	51.8	54.1	29 41.88	− 0.13	+ 7.59	+ 7.63	19 29 49.38	+ 0.04
	12	γ Aquilæ . . .	H.	.	40.8	43.5	45.0	51.3	53.4	55.3	1.5	3.2	5.7	39 53.30	− 0.10	+ 7.78	+ 7.63	19 40 0.83	− 0.14
	13	λ Ursæ Minoris. .	H.	.	. .	. .	33.0	23.0	11.0	58.0	46.0	. .	. .	56 10.62	+ 6.76	. .	+ 7.63	19 56 25.01	+ 4.88
	14	μ Aquarii . . .	H.	.	14.4	17.1	18.7	24.8	26.9	29.0	35.0	36.8	39.3	45 26.89	− 0.13	+ 7.54	+ 7.64	20 45 34.40	+ 0.12
	15	σ Ursæ Majoris, S.P.	H.	.	2.2	58.5	47.9	42.3	37.1	31.5	26.5	15.7	11.6	58 37.03	− 0.23	. .	+ 7.64	8 58 44.44	− 0.09
	16	Moon I, S. . .	H.	.	5.3	8.1	9.5	16.0	17.8	20.0	26.4	28.2	30.8	32 18.01	− 0.13	. .	+ 7.66	22 32 25.54	+62.20
	17	Venus II, S. . .	T.	.	0.9	3.5	5.1	11.4	13.5	15.7	22.0	23.6	26.1	30 13.53	− 0.13	. .	+ 7.72	9 30 21.12	− 0.80
	18	ε Leonis	T.	.	1.0	3.6	5.2	12.0	14.3	16.5	23.2	25.0	27.7	38 14.28	− 0.11	+ 7.73	+ 7.73	9 38 21.90	− 0.01
	19	α Leonis	T.	.	0.9	3.5	5.0	11.2	13.4	15.5	21.8	23.3	26.0	1 13.40	− 0.13	+ 7.73	+ 7.73	10 1 21.00	− 0.01
	20	γ Leonis	T.	.	21.3	24.0	25.7	32.1	34.4	36.6	43.1	44.8	47.5	12 34.39	− 0.12	+ 7.74	+ 7.73	10 12 42.00	+ 0.01
29	21	Sun I, N. . . .	T.	.	35.9	38.5	40.0	46.2	48.3	50.4	. .	. .	. .	23 48.24	− 0.16	. .	+ 7.75	12 23 55.85	+64.31
	22	Polaris, S. P. . .	T.	1	. .	19.0	. .	32.0	. .	. .	10.0	. .	. .	11 55.97	− 5.88	. .	+ 7.76	1 11 57.85	+ 2.29
	23	ε Bootis	T.	.	51.8	54.7	56.4	3.4	5.8	8.0	14.9	16.7	19.6	39 5.70	− 0.10	+ 7.76	+ 7.77	14 39 13.37	0.00
	24	Venus II, S. . .	F.	.	4.7	7.2	8.7	15.0	17.0	19.3	25.5	27.1	30.1	34 17.18	− 0.17	. .	+ 7.93	9 34 24.94	− 0.79
	25	α Leonis	F.	.	1.0	3.3	4.8	11.1	13.2	15.2	21.6	23.3	25.8	1 13.26	− 0.18	+ 7.94	+ 7.94	10 1 21.02	− 0.01
	26	γ¹ Leonis	F.	.	21.1	23.8	25.5	32.0	34.1	36.2	43.0	44.5	47.1	12 34.14	− 0.15	+ 8.03	+ 7.94	10 12 41.93	− 0.07
30	27	Sun I, S. . . .	F.	.	13.0	15.4	17.1	23.0	25.2	27.3	33.2	35.1	37.4	27 25.19	− 0.22	. .	+ 7.95	12 27 32.92	. .
	28	Sun II	F.	.	22.0	24.3	26.0	31.9	34.0	36.0	42.0	43.8	45.9	29 33.99	− 0.22	. .	+ 7.95	12 29 41.72	. .
	29	Polaris, S. P. . .	F.	.	. .	. .	40.0	14.0	49.0	28.0	1.0	. .	. .	11 50.10	− 7.17	. .	+ 7.96	1 11 50.89	− 4.82
	30	α Bootis	F.	.	17.7	20.5	22.0	28.6	30.8	32.8	39.4	41.0	43.7	9 30.72	− 0.16	+ 8.00	+ 7.97	14 9 38.53	− 0.02
	31	ε Bootis	F.	.	. .	. .	. .	. .	. .	. .	14.8	16.4	19.2	39 5.49	− 0.13	+ 7.99	+ 7.97	14 39 13.33	− 0.03
	32	δ Ursæ Minoris .	F.	.	. .	. .	. .	. .	. .	41.0	51.0	17.0	59.0	14 32.60	+ 2.61	. .	+ 7.99	18 14 43.20	− 0.34
	33	51 Cephei, S. P. . .	F.	.	. .	. .	18.0	35.5	51.5	10.0	. .	. .	. .	37 52.80	− 3.75	. .	+ 8.00	6 37 57.05	+ 1.13
	34	σ Sagittarii . . .	F.	.	. .	. .	54.6	56.7	. .	. .	. .	. .	. .	46 59.06	− 0.27	+ 7.97	+ 8.00	18 47 6.79	+ 0.01
	35	α Aquilæ, (R.) . .	F.	.	. .	10.2	12.4	14.3	16.5	18.6	22.5	24.3	26.7	44 14.39	− 0.02	. .	+ 8.00	19 44 22.37	− 0.13
	36	ε Draconis . . .	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	37	α² Capricorni . .	F.	.	25.7	28.2	29.8	36.1	38.2	40.1	46.6	48.1	50.3	10 38.12	− 0.24	+ 8.06	+ 8.01	20 0 45.89	− 0.05
	38	π Capricorni . .	F.	.	27.4	30.2	31.8	38.1	40.3	42.6	49.0	50.6	53.2	19 40.36	− 0.26	+ 8.00	+ 8.01	20 19 48.11	+ 0.01
	39	ε Delphini . . .	F.	.	36.4	39.0	40.4	46.8	48.9	51.0	57.2	58.5	1.2	26 48.82	− 0.18	+ 7.90	+ 8.01	20 26 56.65	+ 0.12
	40	σ Ursæ Majoris, S.P.	F.	.	9.6	3.0	58.8	. .	. .	. .	. .	. .	. .	58 37.41	− 0.67	. .	+ 8.01	8 58 44.75	+ 0.10
	41	α Cephei	F.	.	54.0	0.0	3.1	16.1	20.4	24.7	38.1	41.3	47.4	15 20.57	+ 0.09	. .	+ 8.01	21 15 28.67	− 0.11
	42	μ Capricorni . .	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	43	α Aquarii . . .	F.	.	43.1	45.3	46.8	53.0	55.0	57.0	3.2	4.8	7.3	58 55.06	− 0.21	+ 7.94	+ 8.02	21 59 2.87	+ 0.07
	44	ι Piscium . . .	F.	.	52.5	55.1	56.6	2.8	4.8	6.7	13.0	14.4	17.1	33 4.78	− 0.20	+ 8.04	+ 8.03	23 33 12.61	− 0.03
	45	Moon I, N. . .	F.	.	14.9	17.4	18.5	25.3	27.6	29.5	35.9	37.5	40.1	7 27.41	− 0.22	. .	+ 8.03	0 7 35.22	+61.92
	46	Jupiter I, N. . .	F.	.	28.6	31.1	32.4	. .	. .	. .	49.1	50.1	52.9	36 40.70	− 0.21	. .	+ 8.04	0 36 48.53	. .
	47	Jupiter II, S. . .	F.	.	. .	. .	40.0	42.0	44.1	46.1	48.1	. .	. .	36 44.08	− 0.21	. .	+ 8.04	0 36 51.91	. .
	48	ε Piscium . . .	F.	.	48.6	51.1	52.5	. .	. .	. .	. .	. .	. .	56 0.83	− 0.19	+ 7.99	+ 8.04	0 56 8.68	0.00

8. Seems one rev. wrong.
16. Uncertain which wires; probably IV–VII.
32. Observed over wires C_6 and D.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Simpiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	44 58	2.9	0.3	24.8	27.5	26	360	155	. .	115	215	11.0	45 1 21.9	. .	+ 57.9	96 8 41.0	− 0.9
2	47 16	4.4	2.0	27.4	29.0	27	800	740	. .	680	655	11.0	47 18 57.0	540	+ 1 2.7	98 26 20.9	− 1.1
3	39 42	10 28.6	27.0	28.8	24.8	23	. .	. .	292	. .	. .	10.2	39 45 37.3	403	+ 46.7	90 52 45.2	− 5.7
4	41 24	10 15.2	11.8	6.1	8.4	19	. .	531	584	. .	. .	11.0	41 27 51.3	. .	+ 49.5	92 35 2.0	− 5.8
5	40 52	14.4	11.5	6.1	6.0	23	. .	. .	. .	503	482	11.0	40 55 51.3	399	+ 48.6	92 3 1.1	− 5.7
6	307 28	11 6.1	4.9	29.7	2.3	24	. .	. .	196	275	181	11.0	307 31 18.0	. .	− 1 12.2	358 36 27.0	+ 2.0
7	50 38	10 12.7	10.9	4.4	5.7	25	356	309	. .	121	103	11.0	50 41 27.3	358	+ 1 7.8	101 48 56.3	− 5.6
8	18 58	16.2	12.9	5.5	9.6	27	870	676	. .	672	579	11.0	19 0 47.1	340	+ 19.1	70 7 27.4	−12.7
9	11 12	10 17.9	14.7	9.1	10.1	24	. .	. .	. .	780	040	11.0	11 15 27.0	335	+ 11.0	62 21 59.2	+ 2.7
10	35 58	10 4.5	3.3	26.0	27.5	26	055	988	. .	960	170	11.0	36 1 23.1	. .	+ 41.0	87 8 25.3	− 1.3
11	46 8	11.7	11.7	4.1	5.2	24	960	040	. .	960	915	11.0	46 11 31.5	. .	+ 58.8	97 18 51.5	+ 1.0
12	28 32	10.7	10.1	3.0	3.5	26	680	645	. .	505	455	11.0	28 35 8.6	. .	+ 30.8	79 42 0.6	0.0
13	309 56	6.0	5.0	0.5	1.5	25	325	340	340	220	260	11.0	309 59 31.7	445	− 1 7.4	1 4 45.5	− 0.6
14	48 18	10.0	10.0	2.5	3.9	27	. .	690	. .	590	. .	11.0	48 20 52.3	450	+ 1 3.7	99 28 17.2	− 1.0
15	286 34	9.8	9.2	4.0	4.8	29	385	525	. .	. .	. .	11.0	286 36 21.9	440	− 3 7.3	337 39 35.8	− 2.0
16	49 54	10 13.4	12.0	4.8	5.6	29	. .	075	205	170	120	11.0	49 56 28.9	458	+ 1 7.5	101 3 57.6	
17	25 24	13.6	11.4	5.4	7.3	25	680	776	. .	730	712	12.0	25 27 19.9	533	+ 27.8	76 34 8.9	− 5.2
18	14 26	17.8	15.5	10.5	11.9	19	750	. .	. .	. .	860	12.0	14 30 46.0	530	+ 15.0	65 37 22.2	+ 1.4
19	26 12	12.0	9.3	3.6	5.5	20	. .	948	. .	845	. .	12.0	26 16 35.5	526	+ 28.5	77 23 25.2	+ 0.6
20	18 20	10.5	7.6	2.5	4.0	27	. .	453	. .	320	. .	12.0	18 22 57.8	520	+ 19.1	69 29 38.1	− 2.1
21	41 16	11 25.1	24.5	15.5	17.5	31	. .	. .	528	490	. .	12.0	41 17 9.4	477	+ 49.7	92 24 20.3	− 5.8
22																	
23	11 12	13.6	12.0	5.6	7.8	25	. .	622	. .	528	. .	12.0	11 15 21.9	432	+ 11.2	62 21 54.3	− 2.3
24	25 38	10 15.1	12.5	7.7	8.5	27	430	373	. .	162	132	12.5	25 40 55.2	555	+ 28.0	76 47 44.4	− 5.2
25	26 12	10 23.5	20.9	17.0	18.6	19	892	940	. .	712	975	12.5	26 16 39.1	542	+ 28.6	77 22 28.9	+ 2.2
26	18 20	10 13.2	10.0	5.9	8.2	27	304	141	. .	918	967	12.5	18 22 59.8	535	+ 19.2	69 29 40.2	− 0.1
27	42 10	10 12.6	10.6	5.0	6.6	26	. .	136	. .	. .	. .	12.5	42 13 15.9	466	+ 51.6	93 20 28.7	− 5.9
28																	
29	307 28	10 14.3	13.0	9.7	10.5	25	754	773	720	663	690	12.5	307 21 17.7	437	− 1 13.5	358 36 25.4	− 0.3
30	18 58	11 3.7	0.3	26.1	28.6	25	641	620	. .	590	491	12.5	19 1 2.4	426	+ 19.4	70 7 43.0	+ 2.6
31	11 12	8.4	4.6	1.4	1.2	25	. .	. .	. .	650	784	12.5	11 15 25.2	. .	+ 11.2	62 21 57.6	+ 0.8
32	312 14	2.4	29.9	26.0	29.1	20	. .	952	137	129	165	13.0	312 18 42.1	463	− 1 2.4	3 24 0.9	+45.2
33	306 6	4.0	2.3	28.9	0.2	27	636	638	648	655	. .	13.0	306 8 59.3	. .	− 1 17.9	357 14 2.6	+ 0.1
34	65 16	14.4	14.2	9.0	11.2	27	. .	. .	. .	020	970	13.0	65 18 57.3	482	+ 2 3.6	116 27 22.1	+ 2.8
35																	
36	328 54	8 17.9	14.4	12.7	13.9	27	. .	. .	. .	. .	548	13.0	328 57 48.4	497	− 34.5	20 3 35.1	− 1.4
37	51 46	8.9	7.6	0.9	3.5	26	348	252	. .	012	092	13.0	51 49 18.0	504	+ 1 12.9	102 56 52.1	+ 1.7
38	57 26	9.9	7.3	1.5	6.2	21	. .	478	. .	422	324	13.0	57 30 29.4	. .	+ 1 29.9	108 38 20.5	+ 3.4
39	27 58	11.5	8.3	2.9	5.9	25	722	653	. .	472	488	13.0	28 1 25.3	. .	+ 30.6	79 8 17.1	+ 2.9
40	286 34	5.0	2.9	29.2	2.7	29	691	725	. .	. .	. .	13.0	286 36 26.6	516	− 3 10.5	337 39 37.3	− 0.2
41	336 48	3.1	1.1	26.6	28.6	23	982	950	. .	. .	882	13.0	336 51 59.1	. .	− 24.6	27 57 55.7	+ 0.6
42	52 58	3.2	29.4	23.8	27.0	22	200	272	. .	257	095	13.0	53 2 25.5	. .	+ 1 16.4	104 10 3.1	+ 2.3
43	39 46	7.1	5.6	29.1	3.2	23	218	117	. .	855	910	13.0	39 50 7.7	520	+ 48.1	90 57 17.0	+ 2.1
44	33 54	10.9	9.1	3.1	6.1	23	122	170	. .	968	075	13.0	33 58 3.3	528	+ 38.9	85 5 3.4	+ 2.5
45	41 34	10 28.3	25.1	19.2	21.6	34	. .	. .	004	146	405	13.0	41 35 1.0	. .	+ 51.2	92 42 13.4	
46	36 38	10 11.4	10.0	4.5	7.4	25	287	125	. .	. .	. .	13.0	36 41 30.9	526	+ 43.0	87 48 35.1	− 1.3
47	36 38	10 11.4	10.0	4.5	7.4	21	. .	. .	. .	759	620	13.0	36 42 22.5	. .	+ 43.0	87 49 26.7	− 1.3
48	31 18	8.2	5.4	27.4	2.5	23	232	330	. .	128	110	13.0	31 42 5.5	. .	+ 35.2	82 46 1.9	+ 1.8

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	′ ″
16	− 41 22.4	− 14 48.9
45	− 36 12.9	+ 14 58.3

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Sept. 30	1	Neptune . . .	F.	.	39.6	42.0	43.4	49.6	51.9	53.7	0.0	1.7	4.1	1 51.78	− 0.20	. .	+ 8.04	1 1 59.62	. .
	2	Polaris	F.	.	. .	. .	. .	. .	40.0	59.0	21.0	. .	. .	11 36.67	+ 6.68	. .	+ 8.04	1 11 51.39	− 4.41
	3	Venus II, S. . .	T.	.	9.2	11.9	13.3	19.9	21.9	23.9	30.2	31.8	34.4	38 21.83	− 0.27	. .	+ 8.08	9 38 29.64	− 0.78
	4	α Leonis	T.	.	0.7	3.3	4.8	11.1	13.1	15.1	21.5	23.0	25.7	1 13.14	− 0.27	+ 8.17	+ 8.08	10 1 20.95	− 0.10
	5	γ^1 Leonis	T.	.	21.0	23.9	25.4	32.0	34.2	36.3	43.0	44.5	47.3	12 34.18	− 0.23	+ 8.10	+ 8.08	10 12 42.03	0.00
Oct. 1	6	Sun I, S. . . .	T.	.	50.1	52.7	54.3	0.3	2.5	4.7	10.7	12.1	14.9	31 2.48	− 0.31	. .	+ 8.10	12 31 10.27	. .
	7	Sun II, N. . . .	T.	.	58.9	1.5	3.0	9.1	11.2	13.3	19.5	21.1	23.7	33 11.26	− 0.31	. .	+ 8.10	12 33 19.05	. .
	8	Polaris, S. P. . .	T.	.	. .	. .	48.0	24.0	58.0	38.0	11.0	. .	. .	11 59.62	−10.15	. .	+ 8.11	1 11 57.58	+ 1.65
	9	Mercury, (center) .	T.	.	44.7	47.5	48.9	55.5	57.5	59.5	5.9	7.6	10.2	53 57.48	− 0.35	. .	+ 8.11	13 54 5.24	+ 0.04
	10	α Bootis	T.	.	17.7	20.3	21.8	28.5	30.6	32.7	39.3	41.0	43.7	9 30.62	− 0.23	+ 8.17	+ 8.12	14 9 38.51	− 0.04
	11	α Cygni, (R.) . .	T.	.	32.6	35.8	38.1	47.1	50.0	52.6	1.3	3.5	7.1	36 49.79	+ 0.31	+ 8.07	+ 8.17	20 36 58.27	+ 0.10
	12	μ Aquarii . . .	T.	.	14.1	16.7	18.1	24.3	26.5	28.5	34.7	36.3	38.9	45 26.46	− 0.33	+ 8.12	+ 8.17	20 45 34.30	+ 0.07
	13	σ Ursæ Majoris, S.P.	T.	.	9.7	2.7	58.7	42.8	37.4	32.0	16.4	12.0	5.1	58 37.42	− 0.96	. .	+ 8.17	8 58 44.63	0.00
	14	α Cephei	T.	.	54.6	0.1	3.1	16.3	20.6	24.9	38.1	41.5	46.7	15 20.66	+ 0.10	. .	+ 8.17	21 15 28.93	+ 0.18
	15	β Cephei, (R.) . .	T.	.	15.8	23.5	27.7	45.9	51.9	57.6	15.4	20.2	27.4	26 51.71	+ 1.03	. .	+ 8.17	21 27 0.91	+ 0.30
	16	ε Pegasi	T.	.	24.5	27.1	28.4	34.7	36.8	38.9	45.1	46.6	49.3	37 36.82	− 0.27	+ 8.14	+ 8.17	21 37 44.72	+ 0.01
	17	μ Capricorni . .	T.	.	48.1	50.6	52.2	58.5	0.6	2.6	9.1	10.6	13.2	46 0.61	− 0.35	+ 8.15	+ 8.17	21 46 8.43	− 0.03
	18	79 Draconis . . .	T.	.	27.9	37.0	55.9	3.8	10.4	17.1	24.3	43.7	51.8	51 10.21	+ 0.46	. .	+ 8.17	21 51 18.84	+ 0.48
	19	α Aquarii . . .	T.	.	42.7	45.1	46.8	52.9	55.0	57.1	3.0	4.6	7.2	58 54.93	− 0.30	+ 8.14	+ 8.17	21 59 2.80	+ 0.02
	20	32 Ursæ Majoris S. P.	T.	.	46.5	40.3	36.7	21.7	16.8	11.6	57.1	53.5	47.3	8 16.83	− 0.89	. .	+ 8.18	10 8 24.12	+ 0.13
	21	ι Cephei, (R.) . .	T.	.	25.7	31.9	35.4	50.4	55.1	0.1	15.1	18.7	25.0	44 55.27	+ 0.80	. .	+ 8.18	22 45 4.25	+ 0.34
	22	α Pegasi, (R.) . .	T.	.	53.3	56.1	57.7	4.1	6.1	8.1	. .	. .	. .	58 6.08	+ 0.01	. .	+ 8.18	22 58 14.27	+ 0.18
	23	ο Cephei	T.	.	. .	. .	0.0	5.2	9.9	15.6	20.9	. .	. .	13 10.32	+ 0.26	. .	+ 8.19	23 13 18.77	+ 0.36
	24	ι Piscium . . .	T.	.	52.4	55.0	56.4	2.6	4.7	6.7	13.1	14.5	17.1	33 4.72	− 0.28	+ 8.18	+ 8.19	23 33 12.63	− 0.01
	25	Jupiter I, N. . .	T.	.	58.8	1.2	2.7	. .	. .	. .	19.2	20.7	23.1	36 10.95	− 0.29	. .	+ 8.20	0 36 18.86	. .
	26	Jupiter II, S. . .	T.	.	. .	. .	10.3	12.4	14.5	16.3	18.5	. .	. .	36 14.40	− 0.29	. .	+ 8.20	0 36 22.31	. .
	27	Moon II, S. . .	T.	.	11.9	14.5	16.1	22.2	24.5	26.5	32.8	34.2	37.0	57 24.41	− 0.29	. .	+ 8.20	0 57 32.32	−62.36
	28	Neptune . . .	T.	.	33.4	35.8	37.3	43.4	45.6	47.5	53.7	55.3	57.8	1 45 53	− 0.28	. .	+ 8.20	1 1 53.45	. .
	29	Polaris	T.	.	2.0	. .	55.0	17.0	38.0	5.0	. .	. .	. .	11 40.34	+ 9.46	. .	+ 8.20	1 11 58.00	+ 2.00
	30	θ Ceti	T.	.	8.1	10.7	12.2	18.5	20.6	22.6	28.8	30.3	32.9	17 20.52	− 0.33	+ 8.14	+ 8.20	1 17 28.39	+ 0.06
2	31	δ Ursæ Minoris . .	N.	4	. .	. .	. .	56.0	31.5	4.9	39.7	. .	. .	14 30.90	+ 2.77	. .	+ 8.44	18 14 42.11	− 0.65
	32	1 Aquilæ, (R.) . .	N.	1.3	42.5	45.1	46.6	. .	. .	. .	. .	. .	. .	27 54.51	− 0.11	. .	+ 8.44	18 28 3.14	+ 0.11
	33	σ Sagittarii . . .	N.	3	. .	. .	. .	3.1	7.6	9.5	12.3	26.0	39.7	46 58.61	− 0.33	+ 8.44	+ 8.44	18 47 6.72	− 0.02
	34	α Aquilæ, (R.) . .	N.	3	1.7	4.2	5.7	12.0	14.1	16.0	22.2	23.8	26.2	44 13.99	− 0.01	. .	+ 8.45	19 44 22.43	− 0.03
	35	ε Draconis . . .	N.	3	53.2	1.2	5.5	23.3	29.7	35.1	53.5	57.6	5.6	48 29.41	+ 0.22	. .	+ 8.45	19 48 38.08	+ 0.28
	36	τ Aquilæ . . .	N.	3	22.9	25.5	26.9	33.1	35.1	37.2	43.4	45.1	47.5	57 35.19	− 0.24	+ 8.51	+ 8.45	19 57 43.40	− 0.15
	37	α^2 Capricorni . .	N.	2	25.3	27.9	29.3	35.7	37.8	39.9	46.2	47.8	50.2	10 37.79	− 0.29	+ 8.41	+ 8.46	20 10 45.96	+ 0.05
	38	κ Cephei	N.	2	. .	. .	. .	. .	. .	28.4	47.7	54.0	5.8	13 9.86	+ 0.51	. .	+ 8.46	20 13 18.83	− 0.34
	39	π Capricorni . .	N.	3	27.1	29.8	31.2	37.7	39.9	42.1	48.6	50.1	52.8	19 39.92	− 0.33	+ 8.48	+ 8.46	20 19 48.05	− 0.02
	40	α Cygni, (R.). . .	N.	2	32.3	35.8	37.8	46.4	49.5	52.4	0.8	3.0	6.6	36 49.40	+ 0.27	. .	+ 8.46	20 36 58.13	− 0.02
	41	β Aquarii . . .	N.	3	18.5	21.1	22.6	28.8	30.9	32.8	39.0	40.6	43.1	24 30.82	− 0.28	+ 8.43	+ 8.47	21 24 39.01	+ 0.04
	42	β Cephei	N.	3	16.5	23.9	28.1	46.3	52.3	58.1	16.0	20.4	28.1	26 52.19	+ 0.21	. .	+ 8.47	21 27 0.87	+ 0.31
	43	11 Cephei	N.	3	17.1	24.6	29.6	48.1	54.1	0.1	19.1	23.7	31.2	39 54.18	+ 0.25	. .	+ 8.47	21 40 2.90	− 0.06
	44	μ Capricorni . . .	N.	3	47.7	50.2	51.9	58.2	0.3	2.4	8.7	10.3	12.7	46 0.27	− 0.30	+ 8.43	+ 8.47	21 46 8.44	− 0.01
	45	79 Draconis . . .	N.	2	. .	. .	55.7	2.6	9.5	16.1	23.4	. .	. .	51 9.46	+ 0.32	. .	+ 8.47	21 51 18.25	− 0.05
	46	θ Aquarii . . .	N.	3	34.1	36.7	38.1	42.3	44.4	46.4	48.4	50.3	. .	9 46.39	− 0.28	+ 8.51	+ 8.47	22 9 54.58	− 0.05
5	47	51 Cephei, S. P. . .	N.	3	. .	. .	17.5	36.5	53.0	12.0	28.7	. .	. .	37 53.57	− 4.72	. .	+10.01	6 37 58.66	+ 0.07
	48	50 Draconis . . .	N.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	49	ζ Aquilæ	N.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	50	δ Draconis, (R.) . .	N.	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .

15.18.23.27.38.42.43.50. Bisections at sets B and D.

33. R. A. over wires C_5, D, VI, and VII.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Simpiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	34 2	8.4	7.0	2.4	3.3	. .	470	445	. .	273	223	13.0	34 5 15.4	. .	+ 39.0	85 12 15.6	− 0.2
2																	
3	25 52	11.5	9.0	4.0	6.0	27	. .	. .	. .	370	320	13.0	25 54 56.9	517	+ 28.0	77 1 46.1	− 5.1
4	26 12	10.1	5.5	0.8	3.1	20	. .	910	. .	870	. .	13.0	26 16 39.3	508	+ 28.4	77 23 28.9	+ 2.1
5	18 20	3.6	0.8	26.8	27.8	27	. .	850	. .	670	. .	13.0	18 22 59.5	504	+ 19.1	69 29 39.8	− 0.7
6	42 34	3.9	1.4	26.0	28.6	24	378	360	. .	. .	. .	13.5	42 37 52.5	. .	+ 51.9	93 45 5.6	− 7.1
7	42 2	11.3	9.0	2.9	5.9	24	. .	. .	. .	. .	110	13.5	42 5 47.0	422	+ 50.9	93 12 59.1	− 7.1
8	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . . .	410			
9	52 4	9.3	7.1	1.0	2.9	21	. .	410	. .	340	. .	13.5	52 28 32.0	402	+ 1 13.0	103 36 6.2	− 5.9
10	18 58	11.8	9.3	4.5	7.0	27	. .	177	. .	950	. .	13.5	19 1 2.2	394	+ 19.3	70 70 42.7	+ 2.3
11	185 52	8.4	9.0	3.8	2.7	25	980	803	. .	750	740	13.5	185 55 22.8	485	+ 5.9	45 10 52.5	− 2.5
12	48 18	13.0	12.0	6.0	8.0	27	. .	460	. .	370	. .	13.5	48 20 55.1	. .	+ 1 4.3	99 28 20.6	+ 2.3
13	286 34	8.0	6.6	2.6	4.6	29	. .	. .	. .	284	286	13.5	286 36 28.5	493	− 3 9.5	337 39 40.2	+ 3.1
14	336 48	9.3	7.5	3.5	3.0	23	. .	510	. .	453	. .	13.5	336 51 59.8	. .	− 24.5	27 57 56.5	+ 1.6
15	211 2	4.2	6.7	1.7	1.4	26	. .	. .	. .	658	530	13.5	211 5 13.3	. .	+ 34.6	20 0 33.3	− 5.4
16	29 34	9.4	7.4	1.3	3.8	29	. .	498	. .	400	. .	13.5	29 36 28.3	. .	+ 32.6	80 43 22.1	+ 0.9
17	52 58	11.4	9.3	3.4	5.0	21	. .	540	. .	600	. .	13.5	53 2 26.8	502	+ 1 16.1	104 10 4.1	+ 3.3
18	325 46	10.3	8.3	5.3	7.4	26	. .	390	. .	460	. .	13.5	325 49 12.5	. .	− 39.0	16 54 54.7	+ 2.5
19	39 46	10.5	8.9	3.0	4.5	22	. .	842	. .	868	. .	13.5	39 50 7.9	. .	+ 48.0	90 57 17.1	+ 2.2
20	284 40	7.5	6.4	2.8	4.4	27	. .	861	. .	760	. .	13.5	284 42 52.8	518	− 3 35.7	335 45 38.3	+ 3.8
21	206 32	5.3	6.4	1.8	1.0	20	. .	778	. .	610	. .	13.5	206 36 43.9	. .	+ 28.9	24 29 8.4	− 4.4
22	155 34	7.2	5.6	0.5	0.5	27	850	800	. .	650	670	13.5	155 36 56.3	523	− 26.1	75 29 51.0	− 1.6
23	331 28	10.5	8.6	5.3	5.7	29	. .	350	. .	361	. .	13.5	331 30 27.7	. .	− 31.3	22 36 17.6	+ 0.5
24	33 54	8.4	7.0	1.3	2.6	23	. .	400	. .	350	. .	13.5	33 58 1.8	523	+ 38.9	85 5 1.9	+ 1.1
25	36 40	8.3	5.3	29.3	2.0	21	142	176	. .	. .	. .	13.5	36 44 37.8	529	+ 43.1	87 51 42.1	− 1.3
26	36 40	8.3	5.3	29.3	2.0	17	. .	. .	. .	460	640	13.5	36 45 30.8	. .	+ 43.1	87 52 35.1	− 1.3
27	37 44	20.3	18.4	13.0	14.5	15	. .	240	380	515	. .	13.5	37 49 52.0	. .	+ 44.9	88 56 58.1	
28	34 2	9.4	7.3	0.6	3.0	23	. .	. .	. .	728	. .	13.5	34 5 55.4	529	+ 39.1	85 12 55.7	− 0.2
29																	
30	47 40	9.6	8.7	1.8	4.0	22	. .	440	. .	343	. .	13.5	47 44 15.6	529	+ 1 3.5	98 51 40.3	+ 0.8
31	312 14	10 7.0	5.3	1.6	2.2	23	. .	. .	785	. .	. .	12.0	312 17 54.9	478	− 1 2.7	3 23 13.4	− 2.3
32	132 44	7.9	6.7	29.7	0.2	25	. .	. .	052	010	965	12.0	132 47 35.9	. .	− 1 1.6	98 19 46.9	− 2.1
33	65 16	7.2	6.0	29.6	2.8	27	. .	. .	. .	650	638	12.0	65 18 54.7	484	+ 2 3.6	116 27 19.5	+ 0.2
34	149 34	5.9	5.1	29.5	0.0	21	290	264	. .	202	170	12.0	149 38 35.2	. .	− 33.6	81 28 19.6	+ 0.4
35	328 54	7.5	5.4	1.3	3.5	24	. .	. .	245	. .	. .	12.0	328 57 47.4	501	− 34.5	20 3 34.1	− 2.2
36	31 54	8.4	6.6	29.7	2.4	22	620	538	. .	432	369	12.0	31 58 14.4	. .	+ 35.8	83 5 11.4	− 0.5
37	51 46	10.6	9.2	3.2	5.5	26	. .	150	. .	046	. .	12.0	51 49 16.3	. .	+ 1 12.9	102 56 50.4	0.0
38	321 32	12.0	9.9	5.8	7.9	26	. .	. .	. .	442	.470	12.0	321 35 9.1	507	− 45.6	12 40 44.7	− 0.4
39	57 28	10.3	8.8	2.1	4.5	29	444	428	. .	348	264	12.0	57 30 26.8	. .	+ 1 30.0	108 38 18.0	+ 0.9
40	185 52	6.2	6.6	1.4	0.2	25	982	985	. .	910	812	12.0	185 55 22.1	. .	+ 6.0	45 10 53.1	− 1.8
41																	
42	328 52	8.0	5.5	1.8	4.0	27	964	925	. .	924	926	12.0	328 54 50.8	512	− 34.7	20 0 37.3	− 1.2
43	328 8	8.8	6.4	2.6	4.6	25	278	. .	212	. .	188	12.0	328 11 31.5	. .	− 35.7	19 17 17.0	− 1.2
44	53 0	8.5	6.2	0.3	2.6	29	. .	. .	793	. .	. .	12.0	53 2 22.6	. .	+ 1 16.4	104 10 0.2	− 0.7
45	325 46	8.6	6.8	2.5	4.9	26	. .	. .	653	. .	. .	12.0	325 49 9.3	519	− 39.1	16 54 51.4	− 0.7
46	47 16	9.2	7.4	1.1	3.2	28	. .	. .	575	560	558	12.0	47 18 39.8	. .	+ 1 2.4	98 26 3.4	+ 0.3
47	306 6	10 6.6	5.4	1.1	2.7	27	590	575	560	620	592	12.4	306 8 57.1	415	− 1 16.9	357 14 1.4	− 1.0
48	323 34	8.1	6.8	2.3	4.1	26	. .	. .	435	. .	. .	12.4	323 37 13.4	. .	− 41.5	14 42 53.1	− 2.1
49	25 10	11.0	9.1	3.0	4.7	28	. .	522	. .	417	. .	12.4	25 12 40.7	. .	+ 26.6	76 19 28.5	+ 0.5
50	208 28	3.0	5.0	29.7	28.0	23	080	. .	066	. .	005	12.4	208 32 9.0	. .	+ 30.7	22 33 41.5	− 2.9

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
35	30.200	60.3	64.5
47	29.770	63.0	64.5

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
27	− 33 41.7	− 15 4.7

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Oct. 5	1	67 Piazzi, S. P.	N.	3	34.1	27.1	23.1	6.1	0.6	54.7	37.7	33.6	27.1	17 0.46	− 0.88	. .	+10.02	7 17 9.60	− 0.34
	2	λ Ursæ Minoris	N.	3	. .	. .	. .	. .	. .	. .	4.0	25.0	41.0	55 50.83	+10.87	. .	+10.02	19 56 11.72	− 0.15
	3	τ Aquilæ	N.	3	21.3	23.9	25.3	31.5	33.6	35.7	41.8	43.3	46.0	57 33.60	− 0.26	+10.06	+10.02	19 57 43.36	− 0.13
	4	α^2 Capricorni	N.	3	23.6	26.3	27.8	34.1	36.1	38.2	44.6	46.1	48.7	10 36.17	− 0.32	+10.00	+10.02	20 10 45.87	+ 0.02
	5	α Cygni, (R.)	N.	.	30.6	34.1	36.2	45.1	48.0	50.8	59.4	1.6	5.1	36 47.88	+ 0.27	. .	+10.03	20 36 58.24	+ 0.17
	6	α Cephei	N.	2	52.5	58.0	1.0	14.0	18.8	22.9	36.1	39.2	44.9	15 18.60	+ 0.10	. .	+10.03	21 15 28.73	+ 0.13
	7	β Cephei, (R.)	N.	2.3	13.8	21.4	25.6	43.6	49.8	55.7	14.0	18.3	25.6	26 49.76	+ 0.94	. .	+10.03	21 27 0.73	+ 0.31
	8	ε Pegasi	N.	2	22.5	25.2	26.6	32.7	35.0	36.9	43.0	44.7	47.4	37 34.89	− 0.25	+ 9.98	+10.03	21 37 44.67	+ 0.01
	9	79 Draconis	N.	3	. .	. .	54.0	1.0	8.0	14.9	22.1	. .	. .	51 8.00	+ 0.44	. .	+10.03	21 51 18.47	+ 0.32
	10	α Aquarii, (R.)	N.	3	. .	48.8	51.0	52.9	54.8	57.0	1.0	2.4	5.1	58 52.86	− 0.08	. .	+10.03	21 59 2.81	+ 0.06
	11	θ Aquarii	N.	3	32.5	35.1	36.6	43.0	45.0	47.0	53.2	54.7	57.2	9 44.92	− 0.31	+ 9.98	+10.03	22 9 54.64	+ 0.04
	12	π Aquarii	N.	3	12.7	15.2	16.7	23.0	25.0	27.0	33.1	34.5	37.1	18 24.92	− 0.28	+10.09	+10.04	22 18 34.68	− 0.06
	13	9 Draconis, S. P.	N.	2	. .	. .	53.1	44.4	35.7	27.2	18.3	. .	. .	23 35.74	− 1.19	. .	+10.04	10 23 44.59	− 0.20
	14	λ Aquarii	N.	.	24.2	27.0	28.4	34.6	36.6	38.5	44.8	46.4	48.8	45 36.59	− 0.31	+10.01	+10.04	22 45 46.32	+ 0.09
	15	α Piscis Australis	N.	1	0.0	3.0	4.7	11.9	14.1	16.6	23.6	25.4	28.3	50 14.18	− 0.38	+10.05	+10.04	22 50 23.84	− 0.02
	16	α Pegasi, (R.)	N.	2	51.4	54.0	55.5	2.0	4.1	6.2	12.5	14.0	16.6	58 4.03	+ 0.01	. .	+10.04	22 58 14.08	+ 0.01
	17	ο Cephei	N.	3	36.3	42.7	46.7	2.8	8.0	13.7	28.5	33.5	40.4	13 8.07	+ 0.20	. .	+10.04	23 13 18.31	− 0.02
	18	λ Draconis, S. P.	N.	.	56.3	48.6	44.4	32.4	26.2	. .	. .	. .	. .	23 20.37	− 0.92	. .	+10.04	11 23 29.49	+ 0.10
	19	γ Cephei	N.	3	. .	. .	37.2	46.0	54.8	3.5	12.6	. .	. .	33 54.82	+ 0.60	. .	+10.04	23 34 5.46	+ 0.04
	20	α Andromedæ, (R.)	N.	4	13.4	16.3	18.0	25.1	27.3	29.6	36.6	38.3	41.2	1 27.31	+ 0.11	. .	+10.05	0 1 37.47	+ 0.04
	21	γ Pegasi	N.	3	. .	. .	21.9	23.9	28.1	29.7	32.2	45.0	57.5	6 19.68	− 0.24	+10.05	+10.05	0 6 29.49	− 0.02
	22	Jupiter I, S.	N.	1	58.7	1.3	. .	. .	. .	. .	. .	20.7	23.1	34 10.95	− 0.28	. .	+10.05	0 34 20.72	. .
	23	Jupiter II, N.	N.	1	. .	. .	10.3	12.3	14.3	16.3	18.4	. .	. .	34 14.32	− 0.28	. .	+10.05	0 34 24.09	. .
	24	ε Piscium	N.	3	46.3	49.0	50.4	56.8	58.9	0.9	7.1	8.7	11.1	55 58.80	− 0.26	+10.12	+10.05	0 56 8.59	− 0.12
	25	Neptune	N.	2	6.8	9.5	10.8	17.3	19.2	21.1	27.2	28.7	31.3	1 19.10	− 0.27	. .	+10.05	1 1 28.88	. .
	26	Polaris.	N.	3	. .	. .	52.0	15.5	38.0	1.5	27.0	. .	. .	11 38.92	+ 8.39	. .	+10.05	1 11 57.36	+ 0.32
	27	Moon II, N.	N.	3	. .	7.0	9.2	11.4	13.5	15.6	20.1	21.6	24.5	24 11.43	− 0.23	. .	+10.07	4 24 21.27	−67.6
	28	α Tauri	N.	3	. .	. .	. .	. .	. .	22.2	23.9	26.7	39.3	28 13.83	− 0.23	+10.03	+10.07	4 28 23.67	+ 0.04
	29	Venus I, S.	F.	3	45.0	47.5	49.0	55.5	57.5	59.5	5.7	7.5	10.1	59 57.48	− 0.23	. .	+ 9.03	10 0 6.28	− 0.74
6	30	Sun I, S.	F.	3	0.9	3.2	5.1	9.2	. .	17.1	21.3	23.1	25.4	49 13.16	− 0.28	. .	+ 9.04	12 49 21.92	. .
	31	Sun II, N.	F.	3	9.9	12.5	14.1	20.5	22.5	24.5	30.6	32.2	34.7	51 22.39	− 0.28	. .	+ 9.04	12 51 31.15	. .
	32	δ Ursæ Minoris	F.	3	. .	. .	19.0	54.0	29.5	3.0	38.5	. .	. .	14 28.94	+ 2.71	. .	+ 9.07	18 14 40.72	− 0.31
	33	51 Cephei, S. P.	F.	3	. .	. .	19.0	37.5	55.0	15.0	31.0	. .	. .	37 55.34	− 3.97	. .	+ 9.07	6 38 0.44	− 0.57
	34	σ Sagittarii	F.	3	. .	. .	. .	58.1	0.1	2.3	7.0	8.6	11.5	46 57.80	− 0.34	+ 9.18	+ 9.07	18 47 6.53	− 0.13
	35	67 Piazzi, S. P.	F.	.	35.2	28.1	24.1	7.1	1.1	55.9	38.5	34.5	27.6	17 1.34	− 0.76	. .	+ 9.07	7 17 10.65	+ 0.64
	36	σ^2 Ursæ Maj., S. P.	F.	2	. .	. .	47.3	42.0	36.3	30.6	25.5	. .	. .	58 36.34	− 0.73	. .	+ 9.08	8 58 44.69	− 0.21
	37	α Cephei	F.	3	. .	10.4	14.9	19.1	23.2	28.1	36.6	40.1	45.1	15 19.17	+ 0.06	. .	+ 9.09	21 15 28.32	− 0.24
	38	ξ Aquarii	F.	3	24.7	27.2	28.7	34.9	37.0	39.1	45.4	47.1	49.5	30 37.07	− 0.28	+ 9.01	+ 9.09	21 30 45.88	+ 0.06
	39	ε Pegasi	F.	3	23.4	26.0	27.4	33.6	35.7	37.7	43.9	45.5	48.1	37 35.70	− 0.24	+ 9.17	+ 9.09	21 37 44.55	− 0.10
	40	μ Capricorni	F.	3	47.1	49.6	51.2	57.6	59.6	1.7	8.1	9.7	12.2	46 59.64	− 0.30	+ 9.01	+ 9.09	21 47 8.43	+ 0.03
	41	79 Draconis	F.	2	. .	. .	. .	. .	. .	43.0	46.9	53.7	54.1	51 8.85	+ 0.32	. .	+ 9.09	21 51 17.96	− 0.13
	42	η Aquarii	F.	3	16.0	18.5	20.0	26.3	28.2	30.3	36.3	37.9	40.5	28 28.22	− 0.26	+ 9.05	+ 9.09	22 28 37.05	+ 0.04
	43	λ Aquarii	F.	3	25.1	27.7	29.3	35.6	37.5	39.5	45.8	47.3	49.7	45 37.50	− 0.28	+ 9.06	+ 9.09	22 45 46.31	+ 0.09
	44	ο Cephei	F.	.	. .	. .	58.4	3.8	8.9	14.5	19.8	. .	. .	13 9.08	+ 0.15	. .	+ 9.09	23 13 18.32	0.00
	45	λ Draconis, S. P.	F.	3	57.1	49.4	45.6	27.2	20.9	15.1	57.1	52.8	45.1	23 21.14	− 0.79	. .	+ 9.09	11 23 29.44	+ 0.01
	46	ι Piscium	F.	.	51.6	54.1	55.5	1.8	3.7	5.6	11.8	13.4	16.0	33 3.72	− 0.24	+ 9.12	+ 9.10	23 33 12.58	− 0.04
	47	ω Piscium	F.	3	13.8	16.2	17.8	24.1	26.1	28.1	34.4	36.0	38.2	52 26.08	− 0.24	+ 9.12	+ 9.10	23 52 34.94	− 0.04
	48	α Andromedæ, (R.)	F.	1	14.0	17.2	19.0	23.6	26.0	28.0	30.4	32.8	. .	1 28.15	+ 0.09	. .	+ 9.10	0 1 37.34	− 0.09
	49	Weisse O, 305.	F.	3	50.8	53.7	55.1	59.2	2.9	8.0	11.0	13.0	15.7	19 3.27	− 0.25	. .	+ 9.10	0 19 12.12	+ 3.22
	50	Jupiter I, N.	F.	2	30.2	32.8	34.2	. .	. .	. .	. .	51.9	54.7	33 42.39	− 0.25	. .	+ 9.10	0 33 51.24	. .

1.2.7.9.13.18.19.36.44. Bisections at sets B and D.
41. R. A. over E_5–E_6.
41. Seems one rev. wrong in N. P. D.
49. Wire A used.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	287 36	5.3	4.9	0.2	2.1	23	562	. .	530	. .	495	12.4	287 39 59.9	428	− 2 55.1	338 43 26.0	+ 2.0
2	309 56	7.2	5.6	2.0	3.8	25	. .	. .	. .	375	569	12.4	309 59 31.5	. .	− 1 7.3	1 4 45.4	+ 0.3
3	31 54	9.3	7.7	0.9	3.3	22	. .	. .	328	. .	. .	12.4	31 58 16.2	438	+ 35.3	83 5 12.7	+ 0.8
4	51 46	9.0	7.9	1.1	3.8	26	. .	218	. .	093	. .	12.4	51 49 17.5	. .	+ 1 11.8	102 56 50.5	0.0
5	185 52	9.0	9.1	3.8	2.6	25	860	851	. .	719	657	12.4	185 55 22.2	. .	+ 5.9	45 10 53.1	− 1.4
6	336 48	8.4	6.6	1.5	3.1	23	816	754	. .	640	682	12.4	336 51 56.3	442	− 24.2	27 57 53.3	− 0.8
7	211 2	5.2	7.6	0.5	1.4	26	641	575	. .	. .	. .	12.4	211 5 12.6	. .	+ 34.2	20 0 34.4	− 3.3
8	29 34	9.8	7.7	1.2	4.1	29	545	496	. .	341	289	12.4	29 36 27.5	. .	+ 32.2	80 43 20.9	− 0.1
9	325 46	9.0	7.8	3.1	5.4	26	645	747	. .	711	645	12.4	325 49 10.1	. .	− 38.5	16 54 52.8	+ 1.5
10	140 6	5.7	5.8	29.2	29.5	23	. .	. .	. .	954	893	12.4	140 9 53.6	451	− 47.3	90 57 14.9	0.0
11	47 16	10.8	9.4	2.8	5.2	28	570	517	. .	430	371	12.4	47 18 40.5	. .	+ 1 1.4	98 26 3.1	− 0.1
12	38 6	10.7	8.7	2.5	4.4	23	. .	174	. .	070	. .	12.4	38 10 2.8	. .	+ 44.6	89 17 8.6	− 0.4
13	295 16	7.1	6.0	1.5	3.5	28	326	. .	. .	375	. .	12.4	295 18 44.8	451	− 1 59.3	346 23 6.7	+ 0.4
14	47 6	12.2	10.4	4.0	5.7	26	496	490	. .	416	335	12.4	47 9 10.6	. .	+ 1 1.2	98 16 33.0	− 0.9
15	69 6	9.8	8.5	1.3	4.4	22	512	525	. .	362	300	12.4	69 10 13.8	. .	+ 2 28.4	120 19 3.4	+ 1.6
16	155 34	6.2	4.3	28.9	28.8	27	. .	935	. .	822	. .	12.4	155 36 54.5	465	− 25.8	75 29 52.5	+ 0.2
17	331 28	7.2	5.7	0.7	2.3	29	905	849	. .	701	715	12.4	331 30 24.7	. .	− 30.9	22 36 15.0	− 0.1
18	288 56	7.2	6.4	2.5	4.0	24	761	819	. .	. .	. .	12.4	288 59 39.9	. .	− 2 43.6	340 3 16.7	+ 0.7
19	321 56	8.2	6.6	2.5	4.0	22	196	162	. .	141	179	12.4	322 0 18.1	461	− 44.4	13 5 55.7	+ 0.3
20	169 24	8.1	7.7	2.0	1.1	21	164	216	. .	094	022	12.4	169 28 34.9	. .	− 10.5	61 37 56.8	− 0.8
21	24 22	10.1	8.1	1.6	3.8	23	. .	. .	. .	560	600	12.4	24 25 55.6	460	+ 25.8	75 32 42.6	+ 0.8
22	36 54	6.7	4.7	29.0	0.8	23	. .	742	. .	. .	. .	12.4	36 57 58.0	. .	+ 42.8	88 5 2.0	− 1.3
23	36 54	6.7	4.7	29.0	0.8	26	. .	. .	. .	561	640	12.4	36 57 12.4	. .	+ 42.8	88 4 16.4	− 1.3
24	31 38	9.0	7.6	0.6	3.4	23	. .	. .	187	. .	. .	12.4	31 42 3.3	. .	+ 35.2	82 48 59.7	− 0.1
25	34 4	8.5	6.5	29.7	2.1	21	665	667	. .	548	488	12.4	34 8 28.6	467	+ 38.6	85 15 28.4	− 0.2
26	310 14	6.7	4.7	1.1	2.5	22	268	282	228	278	334	12.4	310 18 18.7	. .	− 1 7.1	1 23 32.8	+ 0.4
27	22 26	10 9.7	6.9	1.5	3.7	26	975	955	090	212	305	12.4	22 29 3.1	. .	+ 23.7	73 35 48.0	
28	22 36	7.6	5.5	29.1	1.5	28	. .	. .	375	. .	. .	12.4	22 38 45.6	484	+ 23.9	73 45 30.7	+ 1.5
29	27 8	5.3	2.3	27.0	28.2	24	603	668	. .	580	503	12.0	27 11 46.0	480	+ 29.3	78 18 36.5	− 5.1
30	44 30	5.8	2.5	2.6	28.3	25	343	528	. .	. .	. .	12.0	44 33 32.8	442	+ 55.7	95 40 49.7	− 6.2
31	43 58	8.7	5.3	0.0	1.0	25	. .	. .	. .	357	431	12.0	44 1 29.0	. .	+ 54.7	95 8 44.9	− 6.1
32	312 14	4.6	1.6	29.4	29.6	23	966	924	955	941	959	12.0	312 17 55.2	. .	− 1 2.4	3 23 14.0	− 1.8
33	306 6	6.0	4.7	1.1	2.8	27	509	578	491	536	452	12.0	306 8 58.1	470	− 1 17.8	357 14 1.5	− 0.9
34	65 16	6.7	5.7	28.0	1.4	27	753	777	. .	658	574	12.0	65 18 55.9	. .	+ 2 3.4	116 27 20.5	+ 1.1
35	287 36	4.5	2.7	26.7	0.3	23	402	502	. .	265	. .	12.0	287 40 3.1	500	− 2 57.9	338 43 26.4	+ 2.5
36	286 34	12.0	10.9	6.2	8.3	. .	008	048	. .	975	987	12.0	286 36 29.5	525	− 3 11.0	337 39 39.7	+ 3.7
37	336 48	9 29.3	27.1	21.9	23.3	24	. .	. .	. .	177	278	12.0	336 51 56.7	. .	− 24.7	27 57 53.2	− 0.7
38	47 16	5.6	3.6	27.2	0.4	27	. .	. .	. .	640	495	12.0	47 18 58.2	. .	+ 1 2.7	98 26 22.1	− 0.5
39	29 34	10 16.1	13.4	6.1	10.3	29	182	150	. .	010	966	12.0	29 36 26.5	540	+ 32.9	80 43 20.6	− 0.3
40																	
41	325 46	1.1	28.6	23.7	26.9	26	. .	. .	. .	. .	315	12.0	325 49 23.8	. .	− 39.4	16 55 5.6	+14.5
42	39 36	8.5	5.9	29.9	2.6	22	206	250	. .	025	942	12.0	39 40 20.3	556	+ 48.3	90 47 29.8	+ 1.1
43	47 6	8.6	7.3	0.9	2.3	26	776	652	. .	703	543	12.0	47 9 9.9	. .	+ 1 2.8	98 16 33.9	− 0.1
44	331 28	5.7	3.4	28.0	0.2	29	870	895	. .	. .	748	12.0	331 30 24.1	. .	− 31.6	22 36 13.7	− 2.0
45	288 56	6.6	4.9	0.6	3.9	24	450	484	. .	382	297	12.0	288 59 44.0	567	− 2 47.5	340 3 17.7	+ 2.2
46	33 54	5.2	2.3	25.4	29.3	23	. .	766	. .	593	. .	12.0	33 58 0.0	. .	+ 39.2	85 5 0.4	− 0.3
47	32 42	3.4	0.4	23.3	27.2	28	838	758	. .	770	601	12.0	32 44 44.5	. .	+ 37.5	83 51 43.2	− 0.6
48	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . . . .	568			
49	35 36	4.0	1.7	25.9	28.3	29	. .	383	. .	248	. .	12.0	35 41 8.4	. .	+ 41.9	86 48 11.5	−21.6
50	36 56	6.1	3.1	27.3	0.3	27	456	409	. .	. .	. .	12.0	36 59 2.5	568	+ 43.9	88 6 7.6	− 1.3

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	′ ″
27	− 20 40.5	+ 15 36.8

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.		h. m. s.	s.
Oct. 6	1	Jupiter II, S. . .	F.	.	. .	. .	41.8	43.8	45.8	47.8	49.8	. .	. .	33 45.80	− 0.25	. .	+ 9.10	0 33 54.65	. .
	2	ε Piscium . . .	F.	3	47.4	50.0	51.4	57.9	59.9	1.8	8.0	9.6	12.0	55 59.78	− 0.24	+ 9.13	+ 9.10	0 56 8.64	− 0.05
	3	Polaris	F.	3	. .	. .	49.0	14.0	41.0	4.0	29.0	. .	. .	11 39.70	+ 7.00	. .	+ 9.10	1 11 55.80	+ 0.54
7	4	Sun I, N. . . .	T.	.	40.3	42.9	44.4	50.7	52.7	54.8	0.9	2.6	4.9	52 52.69	− 0.27	. .	+ 9.14	12 53 1.56	. .
	5	Sun II, S. . . .	T.	.	. .	58.0	0.0	2.0	4.1	6.2	10.1	11.8	14.3	55 2.02	− 0.27	. .	+ 9.14	12 55 10.89	. .
	6	ζ Cygni	T.	.	58.3	1.1	3.0	10.1	12.4	14.6	21.8	23.6	26.6	7 12.39	− 0.16	+ 9.20	+ 9.20	21 7 21.43	− 0.01
	7	α Cephei	T.	.	. .	10.5	15.0	19.5	23.6	28.2	36.6	40.2	45.5	15 19.39	+ 0.08	. .	+ 9.20	21 15 28.67	+ 0.15
	8	24 Ursæ Majoris, S. P.	T.	.	13.9	5.8	1.7	43.3	37.6	31.5	11.0	8.3	1.0	22 37.12	− 0.83	. .	+ 9.20	9 22 45.49	+ 0.14
	9	ε Pegasi	T.	.	23.3	25.8	27.4	33.5	35.6	37.6	43.9	45.4	48.0	37 35.61	− 0.23	+ 9.24	+ 9.20	21 37 44.58	− 0.06
	10	μ Capricorni . .	T.	.	46.9	49.5	51.0	57.4	59.4	1.5	7.9	9.5	12.1	45 59.47	− 0.29	+ 9.16	+ 9.20	21 46 8.38	− 0.01
	11	79 Draconis . . .	T.	.	26.7	35.4	40.4	1.9	9.0	16.0	36.6	42.0	50.7	51 8.74	+ 0.36	. .	+ 9.20	21 51 18.30	+ 0.26
	12	α Aquarii, (R.) . .	T.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	13	θ Aquarii . . .	T.	.	33.4	36.0	37.4	43.6	45.6	47.7	53.9	55.5	57.9	9 45.67	− 0.27	+ 9.17	+ 9.21	22 9 54.61	+ 0.03
	14	π Aquarii . . .	T.	.	13.6	16.1	17.6	23.8	25.8	27.8	34.0	35.5	37.9	18 25.79	− 0.25	+ 9.17	+ 9.21	22 18 34.75	+ 0.03
	15	9 Draconis, S. P. .	T.	.	19.2	18.0	11.8	46.0	37.0	28.5	2.0	55.3	44.6	23 36.93	− 1.05	. .	+ 9.21	10 23 45.09	+ 0.17
	16	ζ Pegasi, (R.) . .	T.	3	. .	42.2	44.3	46.3	48.3	50.3	54.5	56.2	58.7	34 46.28	− 0.01	. .	+ 9.21	22 34 55.48	+ 0.07
	17	ι Cephei, (R.) . .	T.	.	24.7	30.7	34.4	49.4	54.2	58.8	14.0	17.3	23.6	44 54.12	+ 0.66	. .	+ 9.21	22 45 3.99	+ 0.23
	18	α Pegasi	T.	.	52.3	55.1	56.6	3.0	5.0	7.1	12.4	15.1	17.6	58 5.02	− 0.21	+ 9.26	+ 9.21	22 58 14.02	− 0.04
	19	ο Cephei	T.	.	37.2	43.9	47.5	4.1	9.4	14.3	30.2	34.3	39.8	13 8.97	+ 0.18	. .	+ 9.21	23 13 18.36	+ 0.06
	20	θ Piscium . . .	T.	.	58.0	0.4	2.0	8.0	10.2	12.2	18.5	20.0	22.6	21 10.21	− 0.23	+ 9.26	+ 9.22	23 21 19.20	+ 0.03
	21	γ Cephei	T.	.	2.4	13.4	20.0	47.5	56.2	5.1	31.8	39.0	50.0	33 56.16	+ 0.52	. .	+ 9.22	23 34 5.90	+ 0.52
	22	4163 Groombridge . .	T.	.	40.8	49.9	55.3	17.3	24.6	31.5	53.6	58.8	7.8	48 24.40	+ 0.37	. .	+ 9.22	23 48 33.99	+ 0.25
	23	ω Piscium . . .	T.	.	13.6	16.3	17.7	24.0	25.9	27.9	34.1	35.8	38.2	52 25.94	− 0.23	+ 9.25	+ 9.22	23 52 34.93	− 0.05
	24	4 Draconis, S. P. .	T.	.	45.4	31.6	24.4	44.2	33.7	24.0	4.0	56.0	43.4	5 44.10	− 1.19	. .	+ 9.22	12 5 52.13	− 0.21
	25	Pales	T.	3	42.0	44.8	46.4	52.5	54.5	56.5	2.7	4.4	7.0	12 54.53	− 0.23	. .	+ 9.22	0 13 3.52	. .
	26	Jupiter I, N. . .	T.	.	1.0	3.5	. .	. .	. .	. .	. .	. .	. .	33 13.20	− 0.25	. .	+ 9.22	0 33 22.17	. .
	27	Jupiter II, S. . .	T.	.	. .	. .	. .	. .	. .	. .	24.5	26.1	28.5	33 16.24	− 0.25	. .	+ 9.22	0 33 25.31	. .
	28	ε Piscium . . .	T.	.	47.4	50.0	51.5	57.6	59.7	1.7	8.0	9.4	12.0	55 59.70	− 0.23	+ 9.21	+ 9.23	0 56 8.70	− 0.03
	29	δ Ursæ Min., S. P. .	T.	2	19.0	55.0	43.0	9.0	. .	. .	. .	. .	. .	14 35.25	− 2.60	. .	+ 9.26	18 14 41.91	+ 1.56
	30	Venus I, S. . .	T.	3	3.7	6.2	7.7	. .	. .	. .	24.5	25.9	28.5	7 16.08	− 0.26	. .	+ 9.39	10 7 25.21	. .
	31	Venus II, N. . .	T.	3	. .	. .	12.8	15.0	17.1	19.0	21.2	. .	. .	7 17.02	− 0.26	. .	+ 9.39	10 7 26.15	. .
8	32	51 (H) Cephei . .	N.	2	. .	. .	24.0	7.5	50.0	30.0	14.5	. .	. .	37 49.36	+ 2.26	. .	+ 9.55	6 38 1.17	+ 0.72
	33	ε Canis Majoris .	N.	1	. .	. .	28.0	29.6	32.7	46.6	50.0	53.6	0.3	53 18.71	− 0.37	+ 9.46	+ 9.56	6 53 27.90	+ 0.05
	34	δ Geminorum . .	N.	2	53.5	56.4	57.7	4.5	7.0	8.9	15.6	17.3	20.0	12 6.77	− 0.23	+ 9.63	+ 9.56	7 12 16.10	− 0.10
	35	Uranus . . .	N.	2	1.6	4.6	6.0	12.6	15.0	17.2	23.8	25.5	28.1	15 15.04	− 0.23	. .	+ 9.56	7 15 24.37	. .
	36	Moon II, S. . .	N.	2.1	59.3	2.0	3.7	10.3	12.5	14.6	21.3	23.1	25.9	22 12.32	− 0.24	. .	+ 9.56	7 22 21.84	−70.95
	37	α Canis Minoris .	N.	2	3.3	6.1	7.4	13.6	15.8	18.0	24.0	25.5	28.0	32 15.74	− 0.27	+ 9.62	+ 9.56	7 32 25.03	− 0.08
	38	β Geminorum . .	N.	2	. .	. .	1.8	4.1	6.4	8.9	11.2	. .	. .	37 6.48	− 0.21	+ 9.61	+ 9.56	7 37 15.83	− 0.05
	39	ε Hydræ	N.	3	26.6	29.3	34.9	37.0	39.0	40.9	43.1	48.7	51.3	39 38.98	− 0.27	+ 9.61	+ 9.57	8 39 48.28	− 0.04
	40	Venus II, S. . .	F.	3	15.3	18.0	19.5	25.7	27.7	29.8	36.1	37.5	40.2	11 27.76	− 0.28	. .	+ 9.49	10 11 36.97	− 0.72
	41	β Leonis	F.	2	58.0	0.4	2.0	8.8	10.6	12.9	19.1	20.8	23.3	42 10.66	− 0.27	+ 9.47	+ 9.50	11 42 19.89	+ 0.04
9	42	Sun I, S. . . .	F.	2	0.0	2.6	3.9	10.3	12.1	14.1	20.5	22.0	24.6	0 12.33	− 0.32	. .	+ 9.51	13 0 21.42	. .
	43	Sun II, N. . .	F.	2	. .	18.2	20.2	22.5	24.3	26.5	30.6	32.3	34.7	2 22.87	− 0.32	. .	+ 9.51	13 2 31.56	. .
	44	Polaris, S. P. . .	F.	1	. .	. .	27.0	5.0	46.0	26.0	1.0	. .	. .	11 44.70	− 3.41	. .	+ 9.51	1 11 50.80	− 6.73
	45	α Bootis	F.	.	16.3	18.9	20.7	24.6	27.0	29.4	. .	. .	. .	9 29.23	− 0.26	+ 9.55	+ 9.52	14 9 38.69	− 0.02
	46	λ Ursæ Minoris . .	N.	3	. .	. .	. .	54.0	43.0	33.5	. .	. .	. .	55 43.73	+ 3.84	. .	+ 9.66	19 55 57.23	− 9.08
	47	α^2 Capricorni . .	N.	3	26.7	28.1	32.5	34.4	36.4	38.6	40.7	45.0	46.5	10 36.54	− 0.34	+ 9.59	+ 9.66	20 10 45.26	+ 0.07
	48	π Capricorni . . .	N.	2	26.0	28.7	30.2	. .	47.6	49.0	51.8	4.9	17.6	19 38.91	− 0.35	+ 9.39	+ 9.66	20 19 48.22	+ 0.27
	49	ε Delphini . . .	N.	3	34.6	37.1	38.6	45.0	47.1	49.1	55.3	57.0	59.6	26 47.04	− 0.28	+ 9.64	+ 9.66	20 26 56.42	+ 0.03

8.11.15.21.22.24. Bisections at sets B and D.
33. R. A. observed over wires D, E_1, E_3, E_5, and VII.
48. Observed over sets B and D; VI and VII.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	36 56	6.1	3.1	27.3	0.3	23	. .	. .	. .	904	157	12.0	36 59 52.4	. .	+ 43.9	88 6 57.5	− 1.3
2	31 38	2.7	0.7	24.1	26.8	23	. .	723	. .	653	. .	12.0	31 42 1.8	. .	+ 36.0	82 48 59.0	− 0.8
3	310 14	2.1	0.2	26.1	28.6	22	396	456	425	490	487	12.0	310 18 20.2	570	− 1 8.6	1 23 32.8	+ 0.8
4	44 22	1.5	29.0	22.8	25.8	30	166	208	. .	. .	. .	12.0	44 24 25.0	. .	+ 55.3	95 31 41.5	− 6.3
5	44 54	4.9	2.6	26.9	28.5	29	. .	. .	. .	232	420	12.0	44 56 31.8	427	+ 56.2	96 3 49.2	− 6.3
6	9 8	10.4	7.9	3.5	4.6	23	. .	850	. .	921	. .	12.0	9 11 50.9	450	+ 9.2	60 18 21.3	+ 1.0
7	336 48	10.6	9.3	4.0	5.0	23	. .	418	440	. .	. .	12.0	336 51 57.8	. .	− 24.2	27 57 54.8	+ 1.1
8	289 16	11.3	10.0	5.4	6.1	21	. .	674	492	. .	. .	12.0	289 20 24.0	450	− 2 40.1	340 24 5.1	+ 2.0
9	29 34	8.1	5.6	29.1	1.3	29	. .	559	. .	409	. .	12.0	29 36 28.2	450	+ 32.2	80 43 21.6	+ 0.7
10	53 58	10.6	8.4	2.0	4.5	21	. .	. .	. .	390	520	12.0	53 2 26.9	. .	+ 1 15.3	104 10 3.4	+ 2.2
11	325 46	9.5	7.7	3.5	5.8	26	. .	782	. .	641	. .	12.0	325 49 7.6	. .	− 38.5	16 54 50.3	− 0.5
12	140 6	6.7	6.5	29.0	29.5	23	. .	895	923	756	. .	12.0	140 9 54.8	. .	− 47.3	90 57 13.7	− 1.2
13	47 16	17.0	15.1	8.0	9.9	27	. .	. .	. .	934	962	12.0	47 18 41.6	448	+ 1 1.4	98 26 4.2	+ 0.9
14	38 6	9.6	7.0	4.5	2.6	23	. .	300	. .	019	. .	12.0	38 10 2.5	. .	+ 44.5	89 17 8.2	− 0.8
15	295 16	8.9	7.1	2.6	5.6	28	295	250	. .	222	210	12.0	295 18 44.4	. .	− 1 59.2	346 23 6.4	+ 0.7
16	151 12	7.4	6.5	0.4	0.7	23	. .	. .	. .	872	979	12.0	151 15 51.8	. .	− 31.1	79 51 0.5	− 1.6
17	206 32	7.6	9.2	3.4	2.8	20	. .	460	422	411	. .	12.0	206 36 43.9	. .	+ 28.4	24 29 8.9	− 2.1
18	24 20	10.0	7.5	1.4	3.8	26	. .	. .	. .	729	729	12.0	24 23 7.3	443	+ 25.7	75 29 54.2	+ 2.1
19	331 28	9.5	7.4	2.3	4.6	29	. .	661	. .	488	. .	12.0	331 30 24.1	. .	− 30.7	22 36 14.6	− 0.8
20	33 10	8.7	6.7	29.7	2.3	25	. .	680	. .	610	. .	12.0	33 13 26.1	. .	+ 37.1	84 20 24.4	− 0.6
21	321 56	9.3	7.3	2.9	4.5	22	. .	118	. .	161	. .	12.0	322 0 18.2	. .	− 44.2	13 5 55.2	+ 0.5
22	325 10	8.3	6.3	1.1	3.9	25	. .	790	. .	626	. .	12.0	325 13 25.1	. .	− 39.3	16 19 7.0	− 1.2
23	32 42	8.3	6.9	28.9	1.7	28	. .	376	. .	286	. .	12.0	32 44 45.4	441	+ 36.4	83 51 43.0	− 0.8
24	397 12	7.8	6.6	1.6	3.7	22	. .	372	. .	400	. .	12.0	297 16 14.7	. .	− 1 49.2	348 20 46.7	+ 2.6
25	31 38	9.6	8.3	0.1	2.8	28	614	686	. .	640	569	12.0	31 40 39.7	438	+ 34.9	82 47 35.8	− 3.3
26	37 0	9.1	5.8	29.8	2.6	25	860	950	. .	. .	. .	12.0	37 3 23.2	. .	+ 42.6	88 10 27.0	− 1.3
27	37 0	9.1	5.8	29.8	2.6	22	. .	. .	. .	620	732	12.0	37 4 10.5	433	+ 42.6	88 11 14.3	− 1.3
28	31 38	13.8	11.0	4.0	6.7	22	. .	946	. .	. .	. .	12.0	31 42 3.7	. .	+ 34.9	82 48 59.8	0.0
29																	
30	27 42	10 10.6	7.5	2.1	3.7	25	355	. .	. .	. .	090	13.0	27 45 32.1	. .	+ 29.4	78 52 22.7	− 5.1
31	27 42	10 10.6	7.5	2.1	3.7	26	. .	615	. .	467	. .	13.0	27 45 11.9	378	+ 29.4	78 52 2.5	− 5.1
32	311 36	5.6	2.9	29.9	2.1	26	. .	. .	796	765	765	15.0	311 40 45.2	696	− 1 7.4	2 45 59.0	+ 1.4
33																	
34	16 36	7.3	3.8	0.1	2.8	22	. .	955	. .	885	. .	15.0	16 40 11.7	. .	+ 18.0	67 46 50.9	+ 2.0
35	16 6	7.2	3.7	29.9	3.9	23	. .	798	. .	740	. .	15.0	16 9 58.6	. .	+ 17.5	67 16 37.3	− 0.1
36	20 18	6.1	2.0	28.5	1.1	24	595	535	345	324	235	15.0	20 21 50.6	710	+ 22.4	71 28 34.2	
37	33 16	5.7	2.3	28.9	1.5	26	. .	010	. .	864	. .	15.0	33 19 26.9	. .	+ 39.6	84 26 27.7	+ 1.6
38	10 30	6.5	3.1	0.3	2.5	27	124	047	. .	985	990	15.0	10 33 9.4	712	+ 11.2	61 39 41.8	+ 1.4
39	31 56	7.1	3.9	29.1	1.9	27	515	458	. .	196	292	15.0	31 59 4.2	684	+ 37.4	83 6 2.8	+ 0.5
40	27 58	3.0	29.1	26.5	27.8	19	922	988	. .	738	765	15.0	28 3 2.9	640	+ 31.6	79 9 55.7	− 5.1
41	22 30	2.3	29.5	26.6	26.6	21	273	196	. .	176	993	15.0	23 34 43.4	612	+ 25.7	74 41 30.3	+ 0.5
42	45 38	4.7	2.6	29.6	0.7	22	672	968	. .	. .	. .	15.0	45 42 16.2	. .	+ 1 0.1	96 49 37.5	− 6.3
43	45 6	5.5	2.7	0.0	1.7	23	. .	. .	. .	264	305	15.0	45 10 5.5	597	+ 59.0	96 17 25.7	− 6.3
44																	
45	18 58	2.7	29.8	27.7	29.3	27	799	703	. .	. .	. .	15.0	19 1 2.6	563	+ 20.1	70 7 43.9	+ 1.9
46	309 56	3.5	0.7	29.4	1.6	25	. .	. .	490	. .	. .	15.0	309 59 32.0	611	− 1 10.1	1 4 43.1	− 1.5
47	51 46	5.6	3.6	29.4	1.7	26	. .	. .	. .	715	592	15.0	51 49 14.3	. .	+ 1 14.9	102 56 50.4	− 0.3
48																	
49	27 58	5.9	2.1	27.6	1.0	26	. .	442	. .	380	. .	15.0	28 1 20.1	623	+ 31.4	79 8 12.7	− 1.3

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
32	30.304	39.7	60.5
43	30.316	51.7	59.7
46	30.264	48.0	60.0

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	′ ″
36	− 20 17.5	− 16 4.5

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Oct. 11	1	Venus I, S.	N.	3	49.8	52.4	53.8	. .	. .	. .	10.5	12.0	14.6	24 2.18	− 0.33	. .	+10.05	10 24 11.90	. .
	2	Venus II, N.	N.	3	. .	. .	58.9	1.0	3.0	5.1	7.2	. .	. .	24 3.04	− 0.33	. .	+10.05	10 24 12.76	. .
	3	α Ursæ Majoris	N.	4	55.9	1.6	4.7	18.1	22.5	26.9	40.1	43.5	48.9	55 22.47	+ 0.05	. .	+10.06	10 55 32.58	+ 0.07
	4	δ Leonis	N.	2.1	42.6	45.5	47.0	53.6	55.8	58.0	4.7	6.2	9.0	6 55.82	− 0.28	+10.06	+10.07	11 7 5.61	− 0.01
	5	β Leonis	N.	2	. .	. .	. .	10.3	12.3	14.5	18.7	20.2	22.7	42 10.21	− 0.31	+10.00	+10.07	11 42 19.97	+ 0.08
	6	Polaris, S. P.	N.	2	23.0	38.5	39.0	. .	. .	. .	22.0	19.0	36.0	11 59.68	− 8.78	. .	+10.08	1 12 0.98	+ 3.52
12	7	Sun I, N.	N.	2	4.1	6.8	8.0	14.4	16.5	18.6	24.7	26.4	28.8	11 16.48	− 0.40	. .	+10.08	13 11 26.16	. .
	8	Sun II, S.	N.	2	14.1	16.7	18.1	24.4	26.4	28.5	34.7	36.3	38.8	13 26.44	− 0.40	. .	+10.08	13 13 36.12	. .
	9	α Bootis	N.	4	15.6	18.4	19.9	26.5	28.7	30.9	37.3	38.9	41.7	9 28.66	− 0.29	+10.15	+10.09	14 9 38.46	− 0.05
	10	Mercury	N.	1	57.7	0.6	2.2	. .	13.0	15.0	19.6	21.0	23.8	44 10.81	− 0.45	. .	+10.10	14 44 20.46	+ 0.07
	11	δ Ursæ Minoris	N.	4	. .	. .	. .	. .	25.0	59.3	33.3	42.7	. .	14 24.78	+ 3.11	. .	+10.13	18 14 38.02	− 0.40
	12	α Lyræ	N.	5	. .	. .	13.7	16.3	19.1	21.6	24.1	. .	. .	32 18.96	− 0.19	+10.18	+10.14	18 32 28.91	− 0.04
	13	δ Draconis, (R.)	N.	3	48.2	54.9	59.1	15.1	20.3	25.5	41.6	45.5	52.2	12 20.27	+ 0.70	. .	+10.14	19 12 31.11	− 0.10
	14	α Aquilæ, (R.)	N.	3	59.8	2.6	3.9	10.1	12.3	14.3	20.4	22.0	24.7	44 12.23	− 0.13	. .	+10.15	19 44 22.25	− 0.04
	15	β Aquilæ, (R.)	N.	3	31.9	33.3	37.4	39.5	41.5	43.6	45.5	49.8	51.3	48 41.53	− 0.15	. .	+10.15	19 48 51.53	− 0.03
	16	τ Aquilæ	N.	3	21.1	23.6	25.2	31.4	33.5	35.5	41.7	43.4	45.8	57 33.47	− 0.34	+10.17	+10.15	19 57 43.28	− 0.11
	17	α² Capricorni	N.	3	23.4	26.1	27.6	34.0	36.0	38.0	44.5	46.0	48.7	10 36.03	− 0.43	+10.14	+10.15	20 10 45.75	+ 0.01
	18	κ Cephei	N.	3	. .	. .	. .	. .	. .	. .	44.4	51.8	3.2	13 7.46	+ 0.59	. .	+10.15	20 13 18.20	+ 0.06
	19	ε Delphini, (R.)	N.	3	33.9	36.6	38.0	. .	. .	. .	54.6	56.3	58.8	26 46.33	− 0.11	. .	+10.15	20 26 56.37	+ 0.03
	20	α Cygni	N.	3	30.7	34.3	36.3	45.2	48.0	50.7	59.5	1.6	5.1	36 47.93	− 0.15	+10.11	+10.15	20 36 57.93	+ 0.04
	21	α Cephei	N.	3	52.3	57.5	0.6	13.9	18.3	22.7	35.9	39.1	44.2	15 18.28	+ 0.03	. .	+10.16	21 15 28.47	+ 0.14
	22	1 Draconis, S. P.	N.	1.2	. .	. .	20.6	5.9	51.6	36.6	23.3	. .	. .	17 51.60	− 1.80	. .	+10.16	9 17 59.96	− 0.40
	23	β Cephei	N.	3	14.4	21.5	25.7	44.1	50.3	55.7	13.8	18.3	25.7	26 49.94	+ 0.24	. .	+10.16	21 27 0.34	+ 0.29
	24	ε Pegasi	N.	2	22.3	24.9	26.4	32.6	34.9	37.0	43.0	44.5	47.1	37 34.74	− 0.34	+10.15	+10.17	21 37 44.57	0.00
	25	μ Capricorni	N.	2	46.1	48.6	50.2	56.6	58.7	0.7	7.1	8.6	11.3	45 58.66	− 0.43	+10.05	+10.17	21 46 8.40	+ 0.07
	26	79 Draconis	N.	3	25.7	34.2	39.4	1.0	7.6	14.4	35.6	41.1	49.6	51 7.62	+ 0.34	. .	+10.17	21 15 18.13	+ 0.35
	27	α Aquarii, (R.)	N.	3	40.5	43.1	44.5	50.7	52.6	54.8	0.9	2.5	5.0	58 52.73	− 0.20	. .	+10.17	21 59 2.70	+ 0.02
	28	θ Aquarii	N.	3	32.5	35.1	36.6	42.8	44.8	46.9	53.1	54.6	57.2	9 44.84	− 0.41	+10.09	+10.17	22 9 54.60	+ 0.07
	29	9 Draconis, S. P.	N.	2	18.8	17.5	11.6	45.1	36.2	28.3	0.9	54.3	43.9	23 36.29	− 1.18	. .	+10.17	10 23 45.28	0.00
	30	ι Cephei, (R.)	N.	1.2	. .	. .	. .	. .	52.8	57.8	3.0	16.5	22.6	44 53.03	+ 0.62	. .	+10.18	22 45 3.83	+ 0.21
	31	θ Piscium	N.	2	. .	. .	. .	. .	17.3	19.1	21.6	34.0	46.3	21 9.33	− 0.35	+10.21	+10.18	23.21 19.16	+ 0.02
	32	γ Cephei, (R.)	N.	3	59.7	11.6	17.5	45.2	54.2	3.1	30.0	36.0	47.7	33 53.96	+ 1.37	. .	+10.19	23 24 5.52	+ 0.30
	33	4163 Groombridge	N.	3	. .	. .	8.1	15.7	23.3	30.1	38.1	. .	. .	48 23.06	+ 0.38	. .	+10.19	23 48 33.63	− 0.01
	34	ω Piscium	N.	3	12.8	15.4	16.7	23.0	25.0	27.0	33.2	34.9	37.4	52 25.04	− 0.34	+10.25	+10.19	23 52 34.89	− 0.08
	35	Jupiter I, N.	N.	2.1	35.8	38.4	39.9	. .	. .	. .	56.0	57.7	0.1	30 47.98	− 0.37	. .	+10.20	0 30 57.81	. .
	36	Jupiter II, S.	N.	2	. .	. .	47.2	49.3	51.4	53.4	55.3	. .	. .	30 51.32	− 0.37	. .	+10.20	0 31 1.15	. .
	37	β Ceti	N.	2	37.9	40.7	42.2	48.7	50.9	53.0	59.5	1.1	3.8	36 50.87	− 0.46	+10.16	+10.20	0 37 0.61	+ 0.07
	38	32¹ Camelopard., S. P.	N.	2	. .	. .	19.1	59.2	39.5	19.4	59.6	. .	. .	47 39.36	− 2.35	. .	+10.20	12 47 47.21	− 7.70
	39	32² Camelopard., S. P,	N.	2	. .	. .	27.6	7.5	48.0	28.0	7.0	. .	. .	47 47.62	− 2.35	. .	+10.20	12 47 55.47	− 0.44
	40	ε Piscium	N,	3	46.5	49.0	50.5	56.8	58.9	0.9	7.0	8.6	11.1	55 58.81	− 0.34	+10.23	+10.20	0 56 8.67	− 0.08
	41	Neptune	N.	2	23.6	26.1	27.6	33.8	36.0	37.8	44.1	45.7	48.1	0 35.87	− 0.35	. .	+10.20	1 0 45.72	. .
	42	Polaris	N.	1	. .	. .	53.5	19.0	42.0	3.5	32.0	. .	. .	11 42.30	+ 8.08	. .	+10.20	1 12 0.58	+ 3.15
	43	δ Geminorum	N.	3	53.1	55.7	57.0	4.1	6.4	8.5	15.2	16.9	19.6	12 6.28	− 0.28	+10.27	+10.26	7 12 16.26	− 0.04
	44	Uranus	N.	3	12.1	14.9	16.4	23.0	25.4	27.5	34.1	36.0	38.5	15 25.32	− 0.28	. .	+10.26	7 15 35.30	. .
	45	α Canis Minoris	N.	2	. .	. .	. .	39.8	42.9	43.9	45.0	46.1	52.0	32 15.22	− 0.35	+10.30	+10.27	7 32 25.14	− 0.05
	46	β Geminorum	N.	2	52.1	55.0	1.3	3.6	6.0	8.2	10.7	16.9	19.6	37 5.93	− 0.25	+10.30	+10.27	7 37 15.95	− 0.03
	47	Venus II, S.	F.	2	3.3	5.8	7.2	13.6	15.7	17.8	24.0	25.4	28.1	28 15.66	− 0.34	. .	+10.25	10 28 25.57	− 0.69
13	48	Sun I, S.	F.	. .	46.3	48.3	50.3	56.5	58.8	0.7	6.8	8.5	10.8	14 58.56	− 0.43	. .	+10.28	13 15 8.41	. .
	49	Sun II, N:	F.	. .	56.5	59.0	0.5	6.8	8.9	10.9	17.0	18.6	21.1	17 8.81	− 0.43	. .	+10.28	13 17 18.66	. .
	50	ε Bootis	F.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .

6. Only half weight to microscope I.
13. Bisections II–VI.
31. R. A. observed at set D₁, VI and VII.
32.33.38.39, Bisections at sets B and D.
45. R. A. over set E and VII.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	28 54	9.1	4.9	0.2	3.0	23	865	. .	. .	. .	641	13.9	28 57 58.1	. .	+ 32.0	80 4 51.3	− 5.1
2	28 54	9.1	4.9	0.2	3.0	25	. .	142	. .	925	. .	13.9	28 57 38.4	531	+ 32.0	80 4 31.6	− 5.1
3	336 22	6.7	4.1	0.8	1.9	21	. .	310	. .	160	. .	13.9	336 26 37.0	500	− 25.0	27 32.33.2	− 0.2
4	17 34	9.6	6.1	1.5	4.2	20	. .	. .	. .	466	358	13.9	17 38 46.1	. .	+ 18.2	68 45 25.5	+ 3.3
5																	
6	307 28	12 7.8	6.7	2.8	5.9	25	. .	. .	725	720	670	13.9	307 31 24.1	448	− 1 13.7	358 36 31.6	+ 1.3
7	46 14	10 2.3	0.7	25.4	26.5	23	840	801	. .	. .	. .	13.9	46 18 3.0	. .	+ 59.1	97 25 23.3	− 6.3
8	46 46	10 2.3	0.0	24.8	26.3	23	. .	. .	. .	348	244	13.9	46 50 8.3	450	+ 1 0.4	97 57 29.9	− 6.3
9	18 58	10 12.5	10.2	4.8	7.5	27	. .	025	. .	858	. .	13.9	19 1 3.9	436	+ 19.5	70 7 44.6	+ 2.1
10																	
11	312 14	6.7	4.7	1.2	1.8	23	. .	. .	. .	. .	815	13.9	312 17 56.7	462	− 1 2.3	3 23 15.6	− 0.7
12	0 10	10.3	7.9	3.4	4.8	25	620	555	. .	425	385	13.9	0 13 28.5	. .	+ 0.2	51 19 49.9	+ 1.1
13	208 28	5.3	6.9	1.7	0.7	22	956	950	. .	864	830	13.9	208 32 10.2	. .	+ 31.1	22 33 39.9	− 4.4
14	149 36	6.8	6.7	0.6	1.4	29	. .	065	. .	995	. .	13.9	149 38 36.6	. .	− 33.7	81 28 18.3	− 0.9
15	147 10	8.0	7.6	1.2	1.7	31	190	120	. .	022	032	13.9	147 12 4.3	509	− 36.9	83 54 53.8	− 0.8
16	31 56	8.1	5.9	29.2	2.6	30	490	425	. .	240	305	13.9	31 58 16.2	. .	+ 35.9	83 5 13.3	+ 1.4
17	51 46	9.6	8.2	1.8	4.9	26	306	277	. .	142	075	13.9	51 49 17.6	. .	+ 1 13.2	102 56 52.0	+ 1.2
18	321 32	7.8	5.2	1.4	4.5	26	. .	. .	. .	830	. .	13.9	321 35 9.4	. .	− 45.7	12 40 44.9	+ 0.7
19	151 56	6.7	5.2	29.5	1.3	28	845	869	. .	745	701	13.9	151 58 40.9	537	− 30.8	79 8 11.1	− 2.9
20	354 2	10.0	6.1	1.9	3.4	28	720	713	. .	600	615	13.9	354 4 41.3	. .	− 5.8	45 10 56.7	+ 2.9
21	336 48	5.6	3.9	29.6	1.0	23	954	984	. .	. .	. .	13.9	336 51 57.5	. .	− 24.8	27 57 53.9	+ 1.1
22	300 46	4.8	2.9	28.3	1.0	27	. .	060	100	060	. .	13.9	300 49 8.6	551	− 1 37.0	351 53 52.8	+ 0.5
23	328 52	7.7	5.7	1.8	3.8	28	102	152	. .	072	111	13.9	328 54 50.1	. .	− 35.0	20 0 36.3	0.0
24	29 34	8.9	7.0	0.7	3.8	29	715	520	. .	434	492	13.9	29 36 27.7	. .	+ 33.0	80 43 21.9	+ 1.1
25	52 58	6.9	4.9	28.7	1.6	22	080	045	. .	944	935	13.9	53 2 24.9	. .	+ 1 17.1	104 10 3.2	+ 1.7
26	325 46	7.5	5.7	1.5	4.0	26	. .	898	. .	820	. .	13.9	325 49 9.2	. .	− 39.5	16 54 50.9	+ 1.3
27	140 6	6.4	6.6	0.2	1.4	23	. .	. .	840	806	819	13.9	140 9 56.6	558	− 48.5	90 57 13.1	− 1.9
28	47 16	9.7	7.2	0.8	4.4	28	786	. .	. .	605	585	13.9	47 18 40.0	. .	+ 1 3.1	98 26 4.3	+ 0.8
29	295 16	6.3	4.7	0.0	3.4	28	115	285	. .	186	035	13.9	295 18 48.2	576	− 2 2.8	346 23 6.6	+ 2.3
30	206 32	6.9	8.0	2.7	2.5	20	. .	500	470	455	250	13.9	206 36 45.9	. .	+ 29.3	24 29 6.0	− 3.6
31	33 10	8.8	6.4	0.6	3.7	25	. .	. .	. .	675	. .	13.9	33 13 27.0	578	+ 38.3	84 20 26.5	+ 1.6
32	217 56	4.3	5.3	0.5	0.1	24	595	692	. .	575	547	13.9	217 59 45.6	. .	+ 45.7	13 5 49.9	− 3.1
33	325 10	7.7	5.6	2.0	4.4	25	730	741.	. .	742	729	13.9	325 13 26.3	. .	− 40.7	16 19 6.8	+ 0.3
34	32 42	10.1	8.0	1.3	5.2	28	495	. .	. .	. .	316	13.9	32 44 44.0	588	+ 37.7	84 51 42.9	− 0.7
35	37 16	11.2	8.6	2.6	5.5	29	810	745	. .	. .	. .	13.9	37 18 23.2	. .	+ 44.6	88 25 29.0	− 1.3
36	37 16	10.7	8.0	2.3	5.2	26	. .	. .	. .	560	508	13.9	37 19 10.7	. .	+ 44.6	88 26 16.5	− 1.3
37	57 32	8.2	6.5	29.8	3.2	29	210	165	. .	115	029	13.9	57 34 34.4	592	+ 1 31.9	108 42 27.5	− 0.8
38	303 0	6.8	4.8	0.3	4.0	27	020	971	. .	962	988	13.9	303 3 7.3	. .	− 1 29.9	354 7 58.6	+22.5
39	303 0	6.8	4.8	0.3	4.0	28	187	284	. .	185	105	13.9	303 2 48.8	. .	− 1 29.9	354 7 40.1	+ 3.5
40	31 40	10 17.8	16.7	9.9	12.0	30	612	550	. .	460	382	13.9	31 42 4.0	. .	+ 36.2	82 49 1.4	+ 1.0
41	34 10	14.5	12.5	5.9	9.4	27	312	316	. .	128	110	13.9	34 12 57.8	. .	+ 39.9	85 19 58.9	− 0.2
42	310 16	10 21.3	20.5	16.0	17.2	29	180	200	125	251	232	13.9	310 18 19.3	598	− 1 9.1	1 23 31.4	+ 1.0
43	16 36	8.7	5.3	1.0	3.5	22	. .	. .	875	. .	. .	13.9	16 40 10.1	. .	+ 17.8	67 46 49.1	0.0
44	16 6	9.8	7.1	2.7	5.1	22	874	845	. .	722	742	13.9	16 10 9.9	649	+ 17.2	67 16 48.3	− 0.1
45	33 16	7.1	5.0	0.3	2.6	25	. .	. .	. .	. .	645	13.9	33 19 27.4	. .	+ 39.0	84 36 27.6	+ 1.2
46	10 30	8.2	6.2	2.6	4.2	26	960	889	. .	765	652	13.9	10 33 9.4	640	+ 11.1	61 39 41.7	+ 1.0
47	29 14	4.9	0.2	28.2	29.2	27	683	694	. .	526	356	14.2	29 17 2.7	572	+ 32.7	80 23 56.6	− 5.2
48	47 8	8.8	6.0	5 8	5.3	21	295	361	. .	. .	. .	14.2	47 12 33.6	486	+ 1 1.7	98 19 56.5	− 6.5
49	46 36	9.5	6.3	2.5	5.4	21	. .	. .	. .	516	472	14.2	46 40 28.6	. .	+ 1 0.6	97 47 50.4	− 6.4
50	11 12	6.5	3.5	0.3	1.6	25	. .	. .	. .	688	653	14.2	11 15 28.5	463	+ 11.3	62 22 1.0	+ 0.3

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
2	30.206	58.2	59.3
11	30.173	65.1	62.0

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Oct. 13	1	α Serpentis	F.	..	26.9	28.5	32.6	34.6	36.6	38.6	40.8	45.0	46.5	38 36.68	− 0.36	+10.24	+10.31	15 38 46.63	+ 0.07
	2	α Scorpii	F.	..	56.7	59.5	1.2	8.0	10.4	12.6	19.6	21.3	24.2	21 10.39	− 0.52	+10.32	+10.31	16 21 20.18	+ 0.01
	3	δ Ursæ Minoris	F.	3	..	..	14.0	49.5	25.0	58.5	33.0	..	..	14 24.14	+ 4.00	..	+10.33	18 14 38.47	+ 0.44
	4	α Lyræ	F.	4	3.0	6.4	8.2	16.2	18.8	21.3	29.0	31.0	34.4	32 18.70	− 0.17	+10.40	+10.34	18 32 28.87	− 0.06
	5	67 Piazzi, S. P.	F.	..	34.4	27.7	23.3	6.5	0.9	55.2	38.4	34.0	27.0	17 0.87	− 1.04	..	+10.34	7 17 10.17	− 0.36
	6	γ Aquilæ, (R.)	F.	3	38.1	40.7	42.2	48.3	50.4	52.6	58.8	0.1	3.0	39 50.47	− 0.16	..	+10.35	19 40 0.66	− 0.04
	7	β Aquilæ, (R.)	F.	2	29.0	31.7	33.0	39.3	41.2	43.3	49.5	51.2	53.7	48 41.32	− 0.19	..	+10.35	19 48 51.48	0.00
	8	τ Aquilæ	F.	3	21.0	23.5	25.1	31.0	33.4	35.2	41.5	43.1	45.7	57 33.28	− 0.35	+10.34	+10.35	19 57 43.28	− 0.05
	9	κ Cephei	F.	3	..	..	48.0	57.4	7.4	15.8	25.1	..	..	13 6.74	+ 0.79	..	+10.35	20 13 17.88	− 0.16
	10	ε Delphini, (R.)	F.	2	..	..	..	..	..	..	..	..	..	...	..	..	..	...	..
	11	α Cephei, (R.)	F.	3.2	..	..	8.6	13.1	17.3	21.7	26.1	..	..	15 17.36	+ 0.51	..	+10.36	21 15 28.23	− 0.06
	12	β Cephei, (R.)	F.	2	..	..	..	42.6	48.7	54.4	0.5	..	..	26 48.59	+ 0.84	..	+10.36	21 26 59.79	− 0.22
	13	11 Cephei	F.	..	14.7	22.3	26.9	45.1	51.8	57.7	16.0	20.9	28.5	39 51.54	+ 0.37	..	+10.37	21 40 2.28	− 0.10
	14	79 Draconis	F.	..	..	..	53.2	0.2	..	14.0	21.3	..	..	51 7.18	+ 0.48	..	+10.37	21 51 18.03	+ 0.33
	15	λ Aquarii	F.	3	24.0	26.5	28.0	34.3	36.3	38.3	44.4	46.2	48.5	45 36.28	− 0.43	+10.37	+10.37	21 45 46.22	+ 0.06
	16	α Pegasi	F.	3	51.4	54.0	55.4	1.9	4.0	6.0	12.4	14.0	16.6	58 3.97	− 0.32	+10.37	+10.38	22 58 14.03	+ 0.02
	17	γ Cephei, (R.)	F.	..	..	..	35.0	44.0	53.3	1.7	11.6	..	..	33 53.12	+ 1.43	..	+10.39	23 34 4.94	− 0.25
	18	4163 Groombridge	F.	3	..	..	8.5	15.3	22.7	30.0	37.0	..	..	48 22.70	+ 0.52	..	+10.39	23 48 33.61	0.00
	19	Jupiter I, N.	F.	..	7.4	9.7	11.3	..	..	..	27.9	29.4	31.8	30 19.58	− 0.38	..	+10.40	0 30 29.60	..
	20	Jupiter II, S.	F.	..	..	..	18.8	20.9	22.9	24.8	26.9	..	..	30 22.86	− 0.38	..	+10.40	0 30 32.88	..
	21	β Ceti	F.	..	37.8	40.3	42.0	46.4	50.6	54.9	59.2	0.9	3.5	36 50.62	− 0.49	+10.43	+10.40	0 37 0.53	0.00
	22	32¹ Camelopard., S. P.	F.	..	..	..	18.8	58.4	..	..	..	..	..	47 38.35	− 3.45	..	+10.40	12 47 45.30	− 9.64
	23	32² Camelopard., S. P.	F.	..	..	..	27.8	7.2	..	..	..	..	..	47 47.25	− 3.45	..	+10.40	12 47 54.20	− 0.74
	24	Polaris	F.	3	..	..	50.0	15.0	38.0	59.0	10.0	16.0	58.0	11 36.57	+10.17	..	+10.40	1 11 57.14	− 0.25
16	25	β Aquilæ, (R.)	F.	..	28.4	31.0	32.4	36.5	38.5	40.5	..	50.3	52.8	48 40.59	− 0.16	..	+10.89	19 48 51.32	− 0.11
	26	λ Ursæ Minoris	F.	3	..	..	..	..	..	11.0	49.0	6.0	25.0	55 34.48	+ 9.99	..	+10.89	19 55 55.36	− 2.03
	27	κ Cephei	F.	3	..	..	48.1	57.6	6.5	15.9	25.4	..	..	13 6.70	+ 0.53	..	+10.90	20 13 18.13	+ 0.40
	28	ε Delphini, (R.)	F.	..	32.9	35.7	36.8	41.3	..	49.7	53.6	55.0	..	26 45.35	− 0.12	..	+10.90	20 26 56.13	− 0.14
	29	α Cygni	F.	3	29.7	33.1	35.3	44.0	47.1	50.1	58.3	0.7	4.1	36 46.93	− 0.16	+11.01	+10.90	20 36 57.67	− 0.11
	30	μ Aquarii	F.	3	11.2	13.7	15.2	21.3	23.4	25.6	31.8	33.4	35.9	45 23.50	− 0.42	+10.95	+10.90	20 45 33.98	− 0.03
	31	ν Cygni	F.	3	50.3	53.7	55.6	3.9	6.4	9.2	17.0	19.3	22.6	52 6.44	− 0.19	..	+10.90	20 52 17.15	− 0.01
	32	α Cephei, (R.)	F.	3	50.7	56.0	59.2	12.5	17.0	21.4	34.4	37.7	42.8	15 16.87	+ 0.49	..	+10.90	21 15 28.26	+ 0.09
	33	β Cephei, (R.)	F.	.	19.4	23.0	36.2	42.0	48.5	54.2	0.0	12.1	16.7	26 48.01	+ 0.78	..	+10.90	21 16 59.69	− 0.14
	34	11 Cephei	F.	3	..	..	..	..	..	..	15.7	20.4	27.7	39 50.91	+ 0.22	..	+10.91	21 40 2.04	− 0.17
	35	79 Draconis	F.	3	24.1	32.9	38.0	59.5	6.5	13.3	34.5	39.8	48.6	51 6.36	+ 0.31	..	+10.91	21 51 17.58	+ 0.07
	36	θ Aquarii	F.	.	..	..	..	41.9	44.0	46.1	52.2	53.8	56.3	9 43.98	− 0.40	+10.89	+10.91	22 9 54.49	+ 0.01
	37	226 Cephei	F.	.	1.8	12.8	17.7	34.2	42.8	51.1	59.3	7.5	..	29 50.81	+ 0.41	..	+10.91	22 30 2.13	− 0.25
	38	λ Aquarii	F.	.	..	..	..	..	..	..	..	..	..	...	..	..	..	...	..
	39	γ Cephei	F.	.	..	..	36.2	44.5	54.1	2.8	12.1	..	..	33 53.94	+ 0.48	..	+10.92	23 34 5.34	+ 0.29
	40	α Andromedæ	F.	3	12.9	16.0	17.4	24.4	26.8	28.8	36.2	37.7	40.7	1 26.77	− 0.26	+10.90	+10.92	0 1 37.43	+ 0.02
	41	12 Canum Venat.	T.	.	23.9	27.3	29.3	..	39.5	44.8	50.2	52.2	55.3	49 39.66	− 0.23	+11.17	+10.96	12 49 50.39	− 0.20
	42	Polaris, S. P.	T.	.	..	..	..	..	..	36.0	21.0	19.0	34.0	11 58.15	− 5.94	..	+10.97	1 12 3.18	+ 5.66
17	43	Sun I, S.	T.	.	40.9	43.4	44.9	51.3	53.2	55.4	1.5	3.1	6.0	29 53.30	− 0.42	..	+10.97	13 30 3.85	..
	44	Sun II, N.	T.	.	51.8	54.4	56.0	2.2	4.3	6.4	12.6	14.1	16.8	32 4.29	− 0.42	..	+10.97	13 32 14.84	..
	45	Mercury, (center)	T.	.	..	..	..	..	..	..	..	..	..	...	..	..	..	...	..
	46	α Coronæ Borealis	T.	.	41.4	44.2	46.1	52.9	55.2	57.5	4.3	6.2	9.0	28 55.20	− 0.28	+11.05	+10.98	15 29 5.90	− 0.07
	47	α Serpentis	T.	.	23.5	26.2	27.7	33.8	35.9	38.1	44.1	45.6	48.3	37 35.91	− 0.36	+10.98	+10.98	15 37 46.53	0.00
	48	δ Ursæ Minoris	T.	.	..	..	..	49.0	24.5	..	32.0	..	..	14 23.77	+ 1.99	..	+11.01	18 14 36.77	+ 0.27
	49	67 Piazzi, S. P.	T.	3	34.4	27.4	23.4	6.2	0.4	55.2	38.1	33.5	26.9	17 0.61	− 0.67	..	+11.01	7 17 10.95	+ 0.11

2. Seems 1 rev. wrong.
9.11.12.14.17.18.22.23.27.37.39. Bisections at sets B and D.
25.32. Wire B used.
26. Observed at wire C_6 and set D.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1																	
2	64 56	9 22.5	18.5	15.5	14.8	24	720	633	. .	650	606	14.2	64 59 59.7	444	+ 2 0.9	116 8 21.8	+14.9
3	312 14	8.4	5.8	4.3	3.6	23	322	574	638	562	607	14.2	312 17 59.4	472	− 1 2.6	3 23 18.0	+ 1.6
4	0 10	13.6	10.0	7.4	7.6	25	429	379	. .	206	189	14.2	0 13 28.7	. .	+ 0.2	51 19 50.1	+ 1.3
5	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . . .	502			
6	151 22	2.1	1.1	25.2	25.8	28	. .	. .	. .	135	. .	14.2	151 24 55.1	. .	− 31.3	79 41 57.4	− 3.2
7	147 10	7.3	6.3	0.1	0.4	31	. .	131	. .	926	. .	14.2	147 12 6.7	513	− 37.1	83 54 51.6	− 3.0
8	31 34	10 0.6	28.1	22.3	24.3	23	032	042	. .	946	942	14.2	31 58 17.0	. .	+ 35.9	83 5 14.1	+ 2.2
9	321 32	4.7	3.1	29.4	1.2	27	025	122	. .	021	101	14.2	321 35 9.0	. .	− 45.7	12 40 44.5	+ 0.4
10	151 56	5.2	3.8	26.2	28.6	29	. .	071	. .	852	. .	14.2	151 58 40.8	534	− 30.8	79 8 11.2	− 2.8
11	203 6	2.2	3.0	28.1	28.7	30	950	198	. .	130	145	14.2	203 8 8.4	546	+ 24.8	27 57 48.0	− 4.7
12	211 2	3.5	4.9	29.5	0.9	26	. .	. .	. .	611	. .	14.2	211 5 15.0	. .	+ 35.0	20 0 31.2	− 4.9
13	328 8	0.4	28.0	25.5	27.0	26	135	012	. .	005	869	14.2	328 11 31.0	. .	− 36.0	19 17 16.2	+ 0.5
14	325 46	3.5	1.9	28.6	1.1	27	144	092	. .	875	188	14.2	325 49 9.7	. .	− 39.4	16 54 51.5	+ 2.2
15	47 6	8.1	6.7	1.7	4.0	26	727	650	. .	532	470	14.2	47 9 12.9	552	+ 1 2.6	98 16 36.7	+ 2.4
16	24 20	3.8	1.2	25.8	28.7	27	320	236	. .	125	182	14.2	24 23 8.9	. .	+ 26.3	75 29 56.4	+ 4.7
17	217 56	4.0	3.7	29.1	0.0	24	. .	635	. .	548	. .	14.2	217 59 46.9	. .	+ 45.3	13 5 49.0	− 4.7
18	325 10	8.6	6.8	3.4	5.6	25	654	652	. .	552	606	14.2	325 13 27.2	. .	− 40.3	16 19 8.1	+ 1.9
19	37 18	8.0	5.4	0.0	3.3	26	211	894	. .	. .	. .	14.2	37 21 23.3	. .	+ 44.3	88 28 28.8	− 1.3
20	37 18	8.0	5.4	0.0	3.3	22	. .	. .	. .	856	793	14.2	37 22 10.6	. .	+ 44.3	88 29 16.1	− 1.3
21	57 32	5.9	3.9	27.6	0.8	29	208	151	. .	123	082	14.2	57 34 36.9	. .	+ 1 31.2	108 42 29.3	+ 2.4
22	303 0	0.9	28.0	24.9	27.3	27	. .	. .	. .	447	. .	14.2	303 3 6.7	. .	− 1 29.0	354 7 58.9	+22.1
23	303 0	9.9	28.0	24.9	27.3	28	. .	. .	. .	688	. .	14.2	303 2 47.1	. .	− 1 29.0	354 7 39.3	+ 2.5
24	310 14	9 28.5	26.8	23.1	25.6	22	999	931	984	803	. .	14.2	310 18 18.3	. .	− 1 8.4	1 23 31.1	+ 1.9
25	147 10	7.9	7.5	1.0	2.6	21	142	250	. .	332	070	12.7	147 12 5.1	516	− 37.1	83 54 53.2	− 1.5
26	309 56	9.2	8.0	5.5	7.3	25	. .	. .	050	191	308	12.7	309 59 32.7	. .	− 1 8.4	1 4 45.5	+ 1.3
27	321 32	4.8	3.2	29.2	1.5	27	040	058	. .	010	018	12.7	321 35 8.0	524	− 45.7	12 40 43.5	− 0.3
28	151 56	8.1	7.4	1.5	2.6	28	. .	. .	. .	. .	573	12.7	151 58 40.0	. .	− 30.7	79 8 11.9	− 2.1
29	354 2	9.1	7.0	3.0	5.2	28	. .	692	. .	436	418	12.7	354 4 41.2	. .	− 6.0	45 10 56.4	+ 2.9
30	48 18	4.0	3.5	27.4	0.0	28	072	133	. .	736	780	12.7	48 20 54.9	. .	+ 1 4.9	99 28 21.0	+ 2.1
31	358 10	12.6	10.1	5.4	8.2	24	. .	850	. .	500	. .	12.7	358 13 37.2	536	− 1.8	49 19 56.6	+ 3.7
32	203 6	10 14.0	13.6	8.7	8.7	20	540	508	. .	508	. .	12.7	203 8 8.9	. .	+ 24.8	28 57 47.5	− 4.6
33	211 2	29.4	1.1	26.4	26.1	26	. .	. .	. .	618	625	12.7	211 5 15.4	550	+ 35.0	20 0 30.8	− 4.8
34	328 8	12.1	11.0	7.5	8.3	25	. .	. .	. .	010	092	12.7	328 11 31.0	. .	− 36.0	19 17 16.2	+ 1.2
35	325 46	10 1.5	0.6	26.3	28.4	27	. .	. .	. .	272	370	12.7	325 49 7.0	. .	− 39.4	16 54 48.8	+ 0.2
36	47 16	10 14.6	14.1	8.2	10.4	28	. .	. .	. .	017	910	12.7	47 18 42.7	. .	+ 1 2.8	98 26 6.7	+ 2.9
37	323 18	3.4	2.3	29.1	1.5	27	. .	. .	. .	005	001	12.7	323 21 8.7	. .	− 43.1	14 26 46.8	+ 1.8
38	47 6	10.2	9.3	4.0	6.5	26	305	. .	. .	. .	195	12.7	47 9 14.3	546	+ 1 2.5	98 16 38.0	+ 3.6
39	321 56	6.9	4.7	1.5	3.5	22	633	474	. .	528	536	12.7	322 0 14.7	. .	− 45.3	13 5 50.6	− 1.0
40	10 28	11.4	9.5	5.5	6.9	25	. .	468	. .	508	. .	12.7	10 31 25.4	550	+ 10.8	61 37 57.4	+ 1.4
41																	
42																	
43	48 38	2.5	1.5	27.3	28.5	27	450	340	. .	. .	. .	13.7	48 41 6.3	. .	+ 1 7.2	99 48 34.7	− 6.6
44	48 6	4.6	1.9	27.8	29.4	27	. .	. .	. .	998	968	13.7	48 8 53.9	630	+ 1 6.0	99 16 21.1	− 6.6
45	59 14	9.5	6.7	2.4	4.0	23	510	720	. .	624	444	13.7	59 17 58.0	620	+ 1 39.0	110 25 58.2	− 8.2
46	11 40	7.8	5.3	1.8	2.4	25	. .	130	. .	960	. .	13.7	11 43 37.2	617	+ 12.2	62 50 10.6	− 1.0
47	31 58	9.4	6.1	1.5	3.6	22	. .	150	. .	073	. .	13.7	32 2 21.0	618	+ 36.9	83 9 19.1	+ 1.8
48																	
49	287 36	11.0	9.3	5.8	7.2	22	. .	450	564	468	. .	13.7	287 40 11.1	670	− 3 5.4	338 43 26.9	+ 3.4

No.	Barom.	External Therm.	Attached Therm.		No.	MOON'S—	
						Parallax.	Semi-diam.
	in.	°	°	*For summary of the elements of reduction see page 3.*		′ ″	′ ″

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
														m. s.	s.	s.	s.	h. m. s.	s.
1868. Oct. 17	1	α Aquilæ, (R.) . .	T.	.	59.0	1.5	2.9	9.6	11.4	13.3	19.7	21.2	. .	44 11 37	− 0.18	. .	+11.02	19 44 22.21	+ 0.01
	2	τ Aquilæ	T.	.	20.4	22.8	24.4	30.7	32.6	34.6	40.8	42.5	45.0	57 32.64	− 0.36	+10.91	+11.02	19 57 43.30	+ 0.02
	3	α Aquarii	T.	.	40.0	42.4	43.9	50.1	52.1	54.0	0.2	1.7	4.3	58 52.08	− 0.40	+10.92	+11.03	21 59 2[illegible]	[illegible].10
	4	32 Ursæ Majoris, S. P.	T.	.	44.3	37.8	34.4	19.3	14.5	9.6	54.6	50.7	44.5	8 14.41	− 0.59	. .	+11.04	10 8 24.[illegible]	[illegible]0.13
	5	9 Draconis, S. P. .	T.	.	27.3	16.4	10.5	44.3	35.3	26.8	1.3	54.6	43.6	23 35.57	− 0.86	. .	+11.04	10 23 45.7[illegible]	[illegible]0.08
	6	ζ Pegasi, (R.) . .	T.	.	32.2	34.7	36.2	. .	. .	. .	53.1	54.4	57.1	34 44.62	− 0.17	. .	+11.04	22 34 55.49	+ 0.17
	7	ι Cephei	T.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	8	α Pegasi	T.	.	50.8	53.6	55.0	1.4	3.5	5.6	11.9	13.4	15.9	58 3.46	− 0.33	+10.86	+11.04	22 58 14.17	+ 0.19
	9	ο Cephei	T.	.	35.2	42.0	45.6	1.7	7.2	12.4	18.3	22.5	29.1	13 7.11	+ 0.01	. .	+11.04	23 13 18.16	+ 0.15
	10	θ Piscium . . .	T.	.	56.2	59.0	0.4	6.4	8.5	10.5	16.7	18.3	21.0	21 8.56	− 0.36	+10.96	+11.04	23 21 19.24	+ 0.13
	11	γ Cephei	T.	.	0.5	11.4	17.9	45.2	54.3	2.7	30.5	37.5	48.4	33 54.27	+ 0.27	. .	+11.05	23 34 5.59	+ 0.55
	12	Jupiter I, S. . .	T.	2	16.6	19.5	20.7	. .	. .	. .	37.3	38.7	41.4	28 29.03	− 0.38	. .	+11.05	0 28 39.70	. .
	13	Jupiter II, N. . .	T.	.	. .	. .	28.5	30.4	32.4	34.4	36.5	. .	. .	28 32.44	− 0.38	. .	+11.05	0 28 43.11	. .
	14	β Ceti	T.	.	37.1	39.7	41.3	47.9	50.0	52.2	58.8	0.2	3.1	36 50.03	+ 0.46	+11.00	+11.05	0 37 0.62	+ 0.05
	15	Anonymous . .	T.	.	34.0	36.1	37.8	43.8	45.9	48.1	54.1	56.0	58.4	56 46.02	− 0.38	. .	+11.06	0 56 56.70	+ 3.17
	16	Neptune . . .	T.	.	52.0	54.6	56.2	2.4	4.3	6.3	12.3	14.0	16.6	0 4.30	− 0.37	. .	+11.06	1 0 14.99	. .
	17	Polaris	T.	.	. .	. .	57.0	24.0	47.0	8.0	34.0	. .	. .	11 46.30	+ 5.32	. .	+11.06	1 12 2.68	+ 5.11
	18	Uranus . . .	T.	.	19.6	22.4	23.9	30.8	33.0	35.2	41.7	43.3	46.2	15 32.90	− 0.30	. .	+11.11	7 15 43.71	. .
	19	α Geminorum . .	T.	.	47.2	50.2	52.1	59.2	1.7	4.1	11.2	13.1	16.2	26 1.67	− 0.25	+11.13	+11.11	7 26 12.53	+ 0.15
	20	α Canis Minoris .	T.	.	2.2	4.7	6.1	12.5	14.4	16.4	22.5	24.1	26.7	32 14.40	− 0.36	+11.31	+11.11	7 32 25.15	− 0.22
	21	β Geminorum . .	T.	.	51.3	54.3	56.0	3.0	5.4	7.5	14.5	16.2	19.3	37 5.28	− 0.28	+11.17	+11.11	7 37 16.11	− 0.06
	22	λ Ursæ Minoris, S. P.	T.	.	. .	. .	. .	. .	. .	11.0	41.0	15.0	2.0	55 50.50	− 7.53	. .	+11.11	19 55 54.08	− 1.47
18	23	Venus II, S. . .	E.	.	27.4	30.0	31.4	37.7	39.8	42.0	48.1	50.0	52.0	53 39.82	− 0.41	. .	+11.51	10 53 50.92	− 0.65
	24	δ Leonis	E.	.	41.4	44.1	45.7	52.3	54.5	56.6	3.3	4.9	7.6	6 54.49	− 0.32	+11.57	+11.52	11 7 5.69	− 0.07
	25	β Leonis	E.	.	56.1	59.0	0.4	6.7	9.0	11.0	17.3	19.0	21.6	42 8.90	− 0.36	+11.47	+11.52	11 42 20.06	+ 0.06
	26	γ Ursæ Majoris . .	E.	.	19.3	23.8	26.3	36.8	40.4	43.8	54.5	57.0	1.4	46 40.37	+ 0.04	. .	+11.52	11 46 51.93	+ 0.11
	27	Polaris, S. P. . .	E.	.	. .	. .	49.5	27.0	0.0	38.5	. .	. .	. .	12 1.55	−14.47	. .	+11.53	1 11 58.61	+ 0.93
19	28	Sun I, N. . . .	E.	.	11.6	14.2	15.7	21.9	24.2	26.0	32.3	33.8	36.2	37 23.99	− 0.52	. .	+11.53	13 37 35.00	. .
	29	Sun II, S. . . .	E.	.	23.0	25.4	27.0	33.3	35.2	37.4	43.7	45.3	48.0	39 35.37	− 0.53	. .	+11.53	13 39 46.37	. .
20	30	Venus II, S. . .	F.	3	42.5	45.2	46.7	52.9	55.0	57.0	3.2	4.8	7.3	57 54.96	. .	. .	. .	. . . .	. .
22	31	Moon I, S. . .	N.	2	26.6	27.8	29.0	30.0	33.5	46.7	49.4	51.0	26.5	43 59.92	− 0.66	. .	+11.00	19 44 10.26	+65.34
	32	λ Ursæ Minoris .	N.	3	. .	. .	. .	. .	4.0	56.0	34.0	52.5	6.6	55 18.30	+18.12	. .	+11.00	19 55 47.42	− 1.78
	33	α^2 Capricorni . .	N.	2	. .	. .	. .	35.2	37.3	39.3	43.4	45.0	47.7	10 35.13	− 0.60	+11.04	+11.01	20 10 45.54	− 0.03
	34	π Capricorni . .	N.	3	24.5	27.2	28.7	35.3	37.4	39.6	46.0	47.7	50.2	19 37.40	− 0.65	+10.97	+11.01	20 19 47.76	+ 0.04
	35	ε Delphini . . .	N.	3	33.1	35.7	37.2	43.5	45.6	47.6	53.8	55.5	58.0	26 45.56	− 0.42	+11.03	+11.01	20 26 56.15	− 0.01
	36	Venus II, S. . .	F.	.	29.7	32.4	33.9	40.0	42.0	44.0	50.4	51.9	54.4	10 42.08	− 0.40	. .	+12.29	11 10 53.97	− 0.62
	37	β Leonis	F.	3	55.5	58.0	59.6	6.0	8.2	10.2	16.5	18.2	20.8	42 8.11	− 0.34	+12.32	+12.29	11 42 20.06	− 0.02
	38	Polaris, S. P. . .	F.	3	. .	. .	43.0	. .	55.0	32.0	7.0	. .	. .	11 54.78	−11.30	. .	+12.31	1 11 55.79	− 1.67
23	39	Sun N.	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	40	Sun II, S. . . .	F.	.	. .	. .	43.3	45.4	47.4	49.4	53.8	55.3	58.2	54 45.40	− 0.52	. .	+12.32	13 54 57.20	−66.06
	41	λ Ursæ Minoris . .	F.	.	. .	. .	42.0	28.0	22.0	4.0	54.0	. .	. .	55 18.62	+12.64	. .	+12.40	19 55 43.66	− 4.09
	42	Moon I, S. . .	F.	.	10.3	13.0	14.6	21.4	23.4	25.5	32.0	34.0	36.5	35 23.41	− 0.57	. .	+12.40	20 35 35.24	+64.29
	43	α Pegasi, (R.) . .	F.	3	. .	. .	57.4	59.5	1.8	3.9	6.0	. .	. .	58 1.72	− 0.24	. .	+12.44	22 58 13.92	0.00
	44	ω Piscium . . .	F.	.	10.5	13.1	14.9	20.8	23.0	24.9	31.0	32.7	35.1	52 22.89	− 0.42	+12.43	+12.45	23 52 34.92	0.00
	45	α Andromedæ, (R.) .	F.	3	11.1	14.2	15.7	23.0	25.2	27.4	34.3	36.1	39.3	1 25.14	− 0.13	. .	+12.45	0 1 37.46	+ 0.08
	46	Weisse 0, 305 . .	F.	.	48.3	50.7	52.3	56.2	0.6	4.5	8.6	10.0	12.7	19 0.43	− 0.43	. .	+12.45	0 19 12.25	+ 3.23
	47	β Ceti	F.	3	35.8	38.6	40.2	46.5	48.9	51.0	57.2	58.9	1.7	36 48.76	− 0.57	+12.37	+12.45	0 37 0.64	+ 0.11
	48	32^1 Camelopard., S. P.	F.	.	. .	. .	17.5	57.4	36.8	19.2	. .	. .	. .	47 37.72	− 2.79	. .	+12.46	12 47 47.39	− 7.96

5.11.22.23.48. Bisections at sets B and D.
15.46. Wire A used.
31. R. A. observed over sets A, B. and E_1.
31. Bisections at wires D_3 and VI.
42. Bisections at wires II–VI.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent. Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″								° ′ ″		′ ″	° ′ ″	″
1	149 36	7.7	6.5	1.3	1.8	29	. .	056	. .	964	. .	13.7	149 38 36.3	. .	− 35.0	81 28 19.9	+ 0.6
2	31 54	7.6	5.2	29.3	1.4	22	. .	824	. .	610	. .	13.7	31 58 13.6	. .	+ 37.4	83 5 12.2	+ 0.2
3	39 46	7.8	5.5	0.4	3.2	23	. .	410	. .	232	. .	13.7	39 50 3.4	717	+ 50.4	90 57 15.0	− 0.1
4	284 40	6.0	4.5	2.2	4.1	27	. .	708	790	580	. .	13.7	284 42 55.7	. .	− 3 46.0	335 45 30.9	+ 1.0
5	295 16	9.2	6.5	3.8	6.8	27	. .	906	964	866	. .	13.7	295 18 50.7	727	− 2 7.6	346 23 4.3	+ 1.6
6	151 12	7.8	6.1	1.8	1.5	23	. .	970	. .	909	912	13.7	151 15 53.7	. .	− 33.2	79 51 0.7	− 1.1
7	333 20	4.8	2.7	0.1	2.0	26	. .	. .	484	520	550	13.7	333 23 16.5	. .	− 30.4	24 29 7.3	− 1.0
8	24 20	9.4	5.7	1.8	4.3	27	. .	180	. .	180	. .	13.7	24 23 3.5	734	+ 27.5	75 29 52.2	+ 0.7
9	331 26	7.5	5.8	2.8	4.2	22	. .	250	. .	910	. .	13.7	331 30 22.3	. .	− 32.9	22 36 10.6	− 1.8
10	33 10	7.0	5.5	0.1	1.7	26	. .	198	. .	083	. .	13.7	33 13 21.0	. .	+ 39.8	84 20 22.0	− 2.8
11	321 56	6.5	4.3	1.8	3.5	22	. .	376	330	490	. .	13.7	322 0 17.9	743	− 47.4	13 5 51.7	+ 0.4
12	37 28	11.5	8.0	5.1	6.5	21	330	022	. .	. .	. .	13.7	37 32 33.7	757	+ 46.8	88 39 41.7	− 1.3
13	37 28	11.5	8.0	5.1	6.5	17	. .	. .	. .	610	. .	13.7	37 33 26.2	. .	+ 46.8	88 40 34.2	− 1.3
14	57 32	10.2	8.0	3.0	5.2	29	. .	. .	. .	441	436	13.7	57 34 26.3	. .	+ 1 35.7	108 42 23.2	− 4.2
15	38 36	12.4	9.3	5.4	6.5	30	. .	850	. .	740	743	13.7	38 40 40.0	. .	+ 48.9	89 47 50.1	−22.2
16	34 12	7.3	4.5	29.0	1.4	23	. .	. .	. .	378	274	13.7	34 16 3.5	759	+ 41.5	85 23 6.2	− 0.2
17																	
18	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . . .	798			
19	6 40	7.0	3.7	1.4	2.2	26	. .	768	. .	650	. .	13.7	6 43 12.5	. .	+ 7.2	57 49 40.9	− 3.7
20	33 16	11.8	9.3	5.4	6.6	25	. .	874	. .	738	. .	13.7	33 19 21.5	. .	+ 40.4	84 26 23.1	− 0.1
21	10 30	7.0	5.4	2.6	3.4	27	. .	190	. .	114	. .	13.7	10 33 4.7	801	+ 11.2	61 39 37.1	− 4.1
22	307 46	4.1	2.7	0.6	2.0	22	. .	. .	. .	626	590	13.7	307 50 13.6	803	− 1 19.2	358 55 15.6	− 0.3
23	31 18	11.6	9.0	4.7	6.0	34	880	. .	. .	. .	660	14.0	31 19 4.8	. .	+ 35.5	82 26 1.5	− 5.2
24	17 36	14.0	9.5	6.7	7.5	28	. .	. .	. .	240	025	14.0	17 38 44.1	. .	+ 18.6	68 45 23.9	+ 0.3
25	23 30	14.2	8.8	6.0	6.4	20	. .	150	. .	205	. .	14.0	23 34 47.2	. .	+ 25.2	74 41 33.6	+ 2.0
26	344 24	7.4	2.4	0.8	1.4	21	. .	870	. .	865	. .	14.0	344 28 27.6	. .	− 16.1	35 34 32.7	0.0
27	307 28	3.0	0.5	28.3	0.6	26	010	060	055	000	. .	14.0	307 31 25.8	. .	− 1 14.9	358 36 32.1	− 0.7
28	48 50	9 29.7	27.7	22.8	22.9	30	375	530	. .	. .	. .	14.0	48 52 24.5	. .	+ 1 5.3	99 59 51.0	− 6.6
29	49 22	19.0	14.8	10.7	11.1	28	. .	. .	. .	218	262	14.0	49 24 37.3	478	+ 1 6.5	100 32 5.0	− 6.7
30	31 36	9.0	6.4	0.1	2.7	20	978	990	. .	919	900	14.0	31 40 39.7	587	+ 36.1	82 47 37.0	− 5.1
31	58 36	10 27.8	25.8	20.2	23.2	24	. .	. .	. .	906	940	14.0	58 39 19.5	630	+ 1 36.8	109 47 17.5	
32	309 56	7.7	4.4	2.5	5.5	25	. .	. .	. .	. .	275	14.0	309 59 33.4	640	− 1 10.6	1 4 44.0	+ 0.3
33	51 46	10.1	7.6	3.1	5.9	26	. .	. .	. .	340	317	14.0	51 49 14.2	. .	+ 1 15.3	102 56 50.7	− 0.5
34	57 26	10.4	7.3	2.9	6.3	21	906	817	. .	720	700	14.0	57 30 24.5	. .	+ 1 33.0	108 38 18.7	+ 0.5
35	27 58	8.1	3.9	29.6	3.5	26	. .	. .	144	. .	. .	14.0	28 1 21.0	647	+ 31.6	79 8 13.8	− 0.3
36	32 46	9 25.4	21.7	19.5	19.7	36	. .	. .	. .	498	361	15.6	32 46 55.9	716	+ 38.8	83 53 55.9	− 5.2
37	23 30	7.7	3.5	2.4	3.5	30	798	690	. .	620	617	15.6	23 34 45.7	710	+ 26.3	74 41 33.2	+ 0.9
38	307 28	3.2	1.4	0.6	1.9	25	702	. .	628	622	562	15.6	307 31 32.5	684	− 1 17.9	358 36 35.8	+ 1.0
39	50 14	5.3	2.0	29.8	1.2	26	. .	230	. .	. .	. .	15.6	50 17 24.1	676	+ 1 11.9	101 24 57.2	− 6.8
40	50 46	7.4	3.9	1.3	2.7	24	. .	. .	. .	. .	892	15.6	50 49 39.8	. .	+ 1 13.3	101 57 14.3	− 6.9
41	309 54	5.5	2.5	0.8	3.1	17	491	470	455	372	389	15.6	309 59 36.6	704	− 1 11.7	1 4 46.1	+ 2.4
42	56 54	8 7.7	3.7	0.0	2.2	24	790	075	046	918	990	15.6	56 58 41.0	714	+ 1 32.6	108 6 34.8	
43	155 34	3.6	1.8	28.1	29.0	28	098	092	. .	988	858	15.6	155 36 57.5	742	+ 27.5	75 29 51.2	0.0
44	32 42	5.5	3.2	27.9	1.9	28	947	900	. .	746	762	15.6	32 44 43.1	750	+ 39.1	83 51 43.4	− 0.1
45	169 26	6.9	4.9	2.2	1.9	29	. .	064	. .	954	. .	15.6	169 28 38.4	. .	− 11.3	61 37 54.1	− 0.8
46	35 36	9.5	6.4	2.0	5.7	.	535	416	. .	402	257	15.6	35 41 4.8	. .	+ 43.7	86 48 9.7	−21.6
47	57 32	7.1	3.7	29.7	3.0	29	700	446	. .	550	428	15.6	57 34 31.0	760	+ 1 35.8	108 42 28.0	− 0.2
48	303 0	4.8	1.5	29.7	3.3	27	. .	. .	228	. .	. .	15.6	303 3 7.4	. .	− 1 33.6	354 7 55.0	+21.9

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	MOON'S— Semi-diam.
	′ ″	′ ″
31	− 46 32.8	− 14 55.6
42	− 45 25.6	− 14 50.3

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
														m. s.	s.	s.	s.	h. m. s.	s.
1868. Oct. 23	1	32² Camelopard., S. P.	F.	.	. .	. .	25.3	5.0	44.0	25.4	. .	. .	. .	47 44.92	− 2.79	. .	+12.46	12 47 54.59	− 0.7
	2	Neptune . . .	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	3	Polaris	F.	.	. .	. .	41.0	8.0	35.0	53.0	21.0	. .	. .	11 31.92	+ 9.77	. .	+12.46	1 11 54.15	− 3.2
	4	η Piscium . . .	F.	.	4.2	6.8	8.0	14.6	16.6	18.7	25.0	26.7	29.5	24 16.68	− 0.37	+12.31	+12.46	1 24 28.77	+ 0.2
	5	ο Piscium . . .	F.	.	. .	. .	. .	. .	. .	. .	25.1	26.6	29.0	38 16.72	− 0.40	+12.43	+12.47	1 38 28.79	+ 0.0
	6	Uranus . . .	F.	.	20.1	23.3	25.0	32.0	34.2	36.5	43.0	44.2	47.2	15 33.94	− 0.31	. .	+12.54	7 15 46.17	. .
	7	α² Geminorum . .	F.	3	46.0	49.0	50.7	58.4	0.6	2.9	10.1	12.0	14.9	26 0.51	− 0.25	+12.51	+12.54	7 26 12.80	+ 0.2
	8	β Geminorum . .	F.	3	. .	. .	. .	. .	31.5	35.4	36.3	37.4	38.8	37 3.91	− 0.28	+12.75	+12.54	7 37 16.17	− 0.21
	9	φ Geminorum . .	F.	3	0.9	4.0	5.7	12.6	15.0	17.1	23.9	25.6	28.2	45 14.78	− 0.29	+12.65	+12.54	7 45 27.03	− 0.15
	10	λ Ursæ Min., S. P. .	F.	3	15.0	3.0	18.0	28.0	38.0	55.0	. .	. .	. .	55 40.58	−13.38	. .	+12.54	19 55 39.74	− 7.2
	11	Venus II, S. . .	T.	.	46.0	48.6	50.0	56.2	58.3	0.3	6.5	8.1	10.6	14 58.29	− 0.43	. .	+12.52	11 15 10.38	− 0.
	12	β Leonis	T.	.	55.2	58.0	59.5	5.8	8.0	10.1	16.3	18.0	20.6	42 7.94	− 0.37	+12.53	+12.53	11 42 20.10	+ 0.01
	13	α Canum Venat. .	T.	.	22.7	25.9	33.2	35.9	38.3	41.0	43.7	50.7	55.2	49 38.38	− 0.20	+12.50	+12.54	12 49 50.72	+ 0.0
	14	Polaris, S. P. . .	T.	.	. .	. .	50.0	25.0	2.0	39.0	12.0	. .	. .	12 1.26	−11.78	. .	+12.54	1 12 2.02	+ 2.7
24	15	Sun I, S. . . .	T.	.	9.8	12.4	14.1	20.2	22.5	24.6	30.7	32.4	35.1	56 22.42	− 0.54	. .	+12.55	13 56 34.43	. .
	16	Sun II, N. . . .	T.	.	22.1	24.7	26.3	32.5	34.6	36.7	43.0	44.7	47.2	58 34.64	− 0.54	. .	+12.55	13 58 46.65	. .
	17	Mercury, (center) .	T.	2	19.5	22.1	23.8	30.5	32.6	34.7	41.1	43.0	45.5	14 32.53	− 0.60	. .	+12.56	15 14 44.49	+ 0.3
	18	α Serpentis . . .	T.	.	. .	. .	. .	34.4	36.4	38.5	42.5	44.1	46.6	37 34.34	− 0.43	+12.58	+12.56	15 37 46.47	− 0.02
	19	κ Ophiuchi . . .	T.	.	1.2	3.8	5.5	11.6	13.7	15.6	21.8	23.5	26.0	51 13.63	− 0.41	+12.64	+12.57	16 51 25.79	− 0.0
	20	ε Draconis . . .	T.	.	48.2	55.5	59.6	17.6	23.2	29.1	47.2	52.0	59.2	48 23.51	+ 0.36	. .	+12.59	19 48 36.46	+ 0.22
	21	λ Ursæ Minoris . .	T.	.	. .	. .	. .	31.0	19.0	5.0	56.0	. .	. .	55 19.05	+14.22	. .	+12.59	19 55 45.86	− 0.4
	22	α² Capricorni . .	T.	.	21.0	23.5	25.1	31.5	33.8	35.7	42.0	43.6	46.2	10 33.60	− 0.55	+12.49	+12.60	20 10 45.65	+ 0.11
	23	κ Cephei, (R.) . .	T.	.	. .	. .	. .	. .	. .	. .	40.0	47.2	59.3	13 2.83	+ 1.45	. .	+12.60	20 13 16.88	+ 0.01
	24	π Capricorni . . .	T.	.	22.8	25.5	27.1	33.7	35.7	38.0	44.3	45.9	48.6	19 35.73	− 0.58	+12.54	+12.60	20 19 47.75	+ 0.0
	25	μ Aquarii . . .	T.	.	9.6	12.0	13.6	19.9	21.9	24.0	30.1	31.8	34.2	45 21.90	− 0.52	+12.52	+12.60	20 45 33.98	− 0.1
	26	ν Cygni	T.	.	48.5	52.0	53.6	1.8	4.5	7.2	15.4	17.4	20.7	52 4.57	− 0.23	. .	+12.60	20 52 16.94	− 0.0
	27	σ² Ursæ Maj., S. P. .	T.	.	6.8	0.3	56.7	45.2	. .	. .	. .	. .	. .	58 34.75	− 1.08	. .	+12.60	8 56 46.27	+ 0.1
	28	α Cephei, (R.) . .	T.	.	49.2	54.1	57.4	10.6	15.0	19.2	32.4	35.8	40.9	15 14.96	+ 0.46	. .	+12.60	21 15 28.02	+ 0.1
	29	Moon I, S. . .	T.	3	2.5	5.1	6.6	13.0	15.4	17.5	24.0	25.6	28.3	25 15.33	− 0.57	. .	+12.60	21 25 27.36	+63.31
	30	ε Pegasi	T.	.	19.8	22.4	24.0	30.1	32.1	34.2	40.4	42.0	44.6	37 32.18	− 0.41	+12.60	+12.61	21 37 44.38	− 0.01
	31	α Andromedæ, (R.) .	T.	.	11.0	14.0	15.5	22.5	25.0	27.3	34.2	36.0	39.0	1 24.94	− 0.09	. .	+12.63	0 1 37.48	+ 0.11
	32	γ Pegasi	T.	.	4.5	7.2	8.8	15.2	17.3	19.4	25.6	27.3	30.0	6 17.26	− 0.38	+12.57	+12.63	0 6 29.51	+ 0.
	33	Jupiter I, S. . .	T.	.	17.0	19.5	21.0	. .	. .	. .	37.5	39.0	41.5	25 29.25	− 0.46	. .	+12.63	0 25 41.42	. .
	34	Jupiter II, N. . .	T.	.	. .	. .	28.3	30.3	32.3	34.3	36.3	. .	. .	25 32.30	− 0.46	. .	+12.63	0 25 44.47	. .
	35	β Ceti	T.	.	35.6	38.3	40.0	46.5	48.6	50.7	7.2	8.9	11.5	36 48.59	− 0.59	+12.56	+12.63	0 37 0.63	+ 0.1
	36	32¹ Camelopard., S. P.	T.	.	. .	. .	17.6	59.2	38.0	19.9	58.2	. .	. .	47 38.50	− 3.11	. .	+12.63	12 47 48.10	− 7.3
	37	32² Camelopard., S. P.	T.	.	. .	. .	26.8	5.8	45.8	26.6	5.5	. .	. .	47 46.10	− 3.11	. .	+12.63	12 47 55.62	+ 0.2
	38	ε Piscium . . .	T.	.	44.1	46.9	48.1	54.4	56.5	58.5	4.7	6.3	8.8	55 56.48	− 0.42	+12.67	+12.63	0 56 8.69	− 0.0
	39	Neptune . . .	T.	.	8.6	11.1	12.5	18.8	20.9	22.9	29.1	30.6	33.0	59 20.83	− 0.44	. .	+12.63	0 59 33.02	. .
	40	Polaris	T.	.	. .	. .	47.0	12.0	37.0	56.0	24.0	. .	. .	11 35.50	+10.98	. .	+12.63	1 11 59.11	+ 1.9
	41	Uranus I, S . .	T.	.	20.1	23.0	24.5	. .	. .	. .	42.2	43.8	46.8	15 33.40	− 0.32	. .	+12.68	7 15 45.76	. .
	42	Uranus II, N. . .	T.	.	. .	. .	29.3	31.4	33.7	36.0	38.0	. .	. .	15 33.68	− 0.32	. .	+12.68	7 15 46.04	. .
	43	α Canis Minoris . .	T.	.	0.6	3.4	5.0	11.3	13.2	15.1	21.5	23.0	25.4	32 13.17	− 0.43	+12.82	+12.68	7 32 25.42	− 0.1
	44	β Geminorum . .	T.	.	50.0	53.0	54.3	1.7	4.0	6.0	13.1	15.0	17.8	37 3.99	− 0.29	+12.71	+12.68	7 32 16.38	− 0.0
	45	φ Geminorum . .	T.	.	0.9	3.8	5.4	12.4	14.5	17.0	24.0	26.0	28.6	45 14.73	− 0.29	+12.73	+12.69	7 45 27.13	− 0.0
	46	ε Draconis, S. P. .	T.	.	0.7	53.1	48.7	37.1	30.7	24.8	19.0	. .	. .	48 24.95	− 1.16	. .	+12.69	19 48 36.48	− 0.1
	47	λ Ursæ Min., S. P. .	T.	.	. .	25.0	11.0	. .	55.0	5.0	. .	. .	. .	55 54.32	−15.01	. .	+12.69	19 55 52.00	− 3.0
25	48	Venus II, S. . .	E.	.	. .	. .	27.5	29.7	31.7	33.7	35.8	. .	. .	23 31.69	− 0.45	. .	+13.02	11 23 44.26	− 0.01
	49	β Leonis	E.	.	54.8	57.5	59.0	5.5	7.6	9.7	16.0	17.5	20.1	42 7.52	− 0.37	+13.00	+13.02	11 42 20.17	+ 0.0

1.20.23.29. Bisections at sets B and D.
5. Seems one rev. wrong in N. P. D.
8. R, A. observed over set E.
9. Seems five revs. wrong.
36.37.46. Bisections over sets B and D.
48. Seems 2′ 20″ wrong in N. P. D. Cannot correct it.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	303 0	4.8	1.5	29.5	3.3	28	. .	. .	628	. .	. .	15.6	303 2 45.7	. .	− 1 33.6	354 7 33.2	+ 0.2
2	34 16	10 10.8	7.6	3.0	6.4	24	. .	053	. .	078	. .	15.6	34 19 51.3	. .	+ 41.6	85 26 54.1	− 0.2
3	310 14	5.7	2.5	0.5	3.5	22	685	675	733	660	570	15.6	310 18 16.7	. .	− 1 11.9	1 23 26.0	+ 0.6
4	24 10	5.8	2.5	28.6	2.2	27	680	620	. .	555	516	15.6	24 13 2.1	. .	+ 27.4	75 19 50.7	− 1.7
5	30 20	5.5	3.7	29.0	2.3	27	762	754	. .	623	410	15.6	30 23 1.0	764	+ 35.9	81 29 58.1	−15.0
6	16 6	10 12.7	9.3	5.5	8.8	22	681	798	. .	671	588	15.6	16 10 10.4	774	+ 17.8	67 16 49.4	− 0.1
7	6 40	10 9.4	5.0	1.6	5.0	26	593	407	. .	290	130	15.6	6 43 18.3	. .	+ 7.2	57 49 46.7	+ 1.8
8	10 30	10 11.7	9.0	5.8	9.0	26	. .	. .	. .	. .	304	15.6	10 33 14.2	. .	+ 11.4	61 39 46.8	+ 5.2
9	11 42	3.2	0.5	27.4	29.7	23	408	298	. .	168	233	15.6	11 46 10.3	. .	+ 12.8	62 52 44.3	−73.5
10	307 46	4.0	1.4	29.1	3.7	22	806	866	739	820	. .	15.6	307 50 15.2	780	− 1 18.8	358 55 17.6	+ 1.3
11	33 6	9.5	4.5	2.9	4.6	24	. .	948	. .	870	. .	14.1	33 9 38.4	736	+ 39.6	84 16 39.2	− 5.2
12	23 30	8.4	3.7	2.0	3.6	20	. .	651	. .	572	. .	14.1	23 34 45.1	720	+ 26.4	74 41 32.7	+ 0.2
13	359 48	8.0	3.2	2.8	3.1	24	. .	042	. .	000	. .	14.1	359 51 53.3	. .	− 1.4	50 58 13.1	− 1.0
14	307 28	4.5	2.0	1.5	2.6	25	. .	630	716	688	. .	14.1	307 31 29.3	670	− 1 17.6	358 36 32.9	− 1.5
15	51 6	10 5.5	1.8	29.0	1.2	22	. .	. .	055	. .	. .	14.1	51 10 25.4	. .	+ 1 13.8	102 18 0.4	− 6.9
16	50 34	10 4.9	0.9	29.2	1.2	22	. .	900	. .	830	. .	14.1	50 38 11.9	653	+ 1 12.4	101 45 45.5	− 6.8
17	59 54	7.6	3.8	0.4	3.5	27	. .	135	. .	012	. .	14.1	59 57 6.7	623	+ 1 41.8	111 5 9.7	− 9.6
18	31 58	5.6	2.3	28.8	2.3	22	. .	. .	. .	101	. .	14.1	32 2 23.3	617	+ 36.9	83 9 21.4	+ 3.3
19	29 14	6.0	2.5	29.3	1.8	24	. .	034	. .	908	. .	14.1	29 17 55.8	598	+ 33.0	80 24 50.0	− 1.0
20	328 54	4.5	1.3	29.1	0.4	24	. .	560	. .	480	. .	14.1	328 57 48.6	. .	− 35.7	20 3 34.1	− 1.1
21	309 56	4.0	1.3	29.7	2.6	25	. .	523	418	421	. .	14.1	309 59 33.4	648	− 1 10.7	1 4 43.8	+ 0.1
22	51 46	6.8	3.8	29.5	1.8	26	. .	700	. .	558	. .	14.1	51 49 13.7	. .	+ 1 15.6	102 56 50.5	− 0.8
23	218 22	1.5	0.6	27.4	26.3	28	. .	. .	. .	271	160	14.1	288 24 53.7	. .	+ 47.2	12 40 40.3	− 3.0
24	57 26	7.4	3.7	29.2	8.6	21	. .	. .	. .	982	874	14.1	57 30 24.9	659	+ 1 33.3	108 38 19.4	+ 1.2
25	48 18	10 9.0	5.7	1.4	3.8	28	. .	. .	. .	000	005	14.1	48 20 50.4	. .	+ 1 7.0	99 28 18.6	− 0.6
26	358 10	6.8	3.5	0.1	3.3	25	. .	362	. .	216	. .	14.1	358 13 34.9	. .	− 1.9	49 19 54.2	+ 1.7
27	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . .	668			
28	203 6	2.3	1.7	28.5	28.3	31	123	190	. .	040	980	14.1	203 8 8.1	. .	+ 25.5	27 57 47.6	− 3.6
29	54 28	7.8	6.3	1.5	4.7	24	. .	. .	156	158	. .	14.1	54 31 50.7	674	+ 1 23.7	105 39 35.6	
30	29 34	4.7	1.3	26.8	29.5	29	. .	. .	. .	900	914	14.1	29 36 25.8	677	+ 34.0	80 43 21.0	+ 0.2
31	169 26	2.6	0.3	26.8	27.0	29	. .	510	. .	232	. .	14.1	169 28 36.1	. .	− 11.2	61 37 56.3	+ 1.5
32	24 22	5.5	1.5	26.9	0.2	24	. .	. .	. .	. .	039	14.1	24 25 55.1	696	+ 27.3	75 32 43.6	+ 3.0
33	37 48	6.2	2.5	28.4	0.5	26	094	069	. .	. .	. .	14.1	37 51 25.0	. .	+ 46.7	88 58 32.9	− 1.3
34	37 48	6.2	2.5	28.4	0.5	29	. .	. .	. .	070	004	14.1	37 50 37.7	697	+ 46.7	88 57 45.6	− 1.3
35	57 32	6.4	3.0	29.0	1.5	29	. .	475	. .	290	. .	14.1	57 34 32.8	. .	+ 1 34.4	108 42 28.4	+ 0.1
36	303 0	2.3	28.4	26.5	28.8	27	538	. .	. .	. .	660	14.1	303 3 2.9	. .	− 1 32.2	354 7 51.9	+19.9
37	303 0	2.3	28.4	26.5	28.8	28	864	. .	. .	. .	733	14.1	303 2 44.9	698	− 1 32.2	354 7 33.9	− 0.1
38																	
39	34 16	5.0	1.4	26.8	0.6	22	. .	140	. .	310	. .	14.1	34 20 33.9	. .	+ 41.0	85 27 26.1	− 0.2
40	310 16	4.0	1.4	28.4	1.6	30	750	654	570	644	610	14.1	310 18 14.8	700	− 1 10.8	1 23 25.2	+ 0.2
41	16 6	8.3	4.0	0.5	2.3	23	. .	. .	. .	140	210	14.1	16 10 7.8	708	+ 17.5	67 16 46.5	− 0.1
42	16 6	8.3	4.0	0.5	2.3	22	. .	. .	. .	742	852	14.1	16 10 11.3	. .	+ 17.5	67 16 50.0	− 0.1
43	33 16	7.8	4.3	0.0	2.1	25	. .	. .	. .	740	590	14.1	33 19 27.7	. .	+ 39.6	84 26 28.5	+ 1.0
44	10 30	4.0	0.6	28.0	28.4	27	. .	184	. .	076	. .	14.1	10 33 9.8	708	+ 11.5	61 39 42.5	+ 0.8
45	11 42	4.8	2.4	28.5	0.1	18	. .	363	. .	226	. .	14.1	11 47 23.5	. .	+ 12.6	62 53 57.3	− 0.6
46	288 48	4.3	1.6	0.1	1.5	19	. .	765	. .	721	. .	14.1	288 52 59.4	. .	− 2 54.5	339 56 26.1	+ 1.3
47	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . .	704			
48	33 52	10.0	6.3	2.8	4.0	33	. .	. .	125	130	120	12.6	33 53 29.9	. .	+ 39.3	85 0 30.4	− 5.2
49	23 30	9.3	3.5	2.0	3.2	20	. .	. .	. .	490	462	12.6	23 34 44.6	. .	+ 25.4	74 41 31.2	− 1.7

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
29	− 44 0.5	− 14 48.3

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Oct. 25	1	γ Ursæ Majoris	E.	.	. .	. .	. .	. .	. .	. .	53.0	55.6	0.0	46 38.97	+ 0.03	. .	+13.02	11 46 52.02	+ 0.02
	2	α Canum Venat.	E.	.	22.1	25.5	27.2	35.2	37.8	40.5	48.3	50.4	53.6	49 37.84	− 0.18	+13.05	+13.03	12 49 50.69	− 0.01
	3	Polaris, S. P.	E.	.	. .	. .	48.0	24.5	59.0	40.5	11.5	. .	. .	12 0.38	−14.22	. .	+13.03	1 11 59.19	+ 2.41
26	4	Sun II, N.	E.	.	2.5	5.0	6.9	13.0	15.2	17.2	23.6	25.0	27.6	6 15.11	− 0.56	. .	+13.04	14 6 27.59	−66.37
	5	λ Ursæ Minoris	E.	.	. .	. .	. .	. .	53.5	. .	31.0	26.5	20.0	55 15.70	+17.29	. .	+13.08	19 55 46.07	+ 2.43
	6	ε Delphini	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . . .	. .
	7	β Cephei, (R.)	E.	.	9.0	16.7	20.8	39.1	45.0	51.0	8.9	13.6	21.1	26 45.02	+ 0.95	. .	+13.09	21 26 59.06	− 0.17
	8	ε Pegasi	E.	.	19.4	22.0	23.5	29.5	31.7	33.7	40.0	41.5	44.0	37 31.70	− 0.41	+13.05	+13.10	21 37 44.39	+ 0.03
	9	79 Draconis, (R.)	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . . .	. .
	10	α Aquarii	E.	.	37.7	40.3	41.8	47.9	50.0	52.0	58.0	59.5	2.0	58 49.91	− 0.48	+13.04	+13.10	21 59 2.53	+ 0.05
	11	θ Aquarii	E.	.	29.3	32.0	33.6	39.7	41.8	43.9	50.2	51.8	54.1	10 41.82	− 0.54	+13.06	+13.10	22 10 54.38	+ 0.03
	12	9 Draconis, S. P.	E.	.	27.3	16.3	10.1	52.3	35.0	18.0	0.3	54.0	43.7	23 35.22	− 1.81	. .	+13.10	10 23 46.51	+ 0.07
	13	226 Cephei	E.	.	58.0	8.6	14.1	39.4	47.4	55.3	19.6	26.0	36.4	29 47.20	+ 0.88	. .	+13.10	22 30 1.18	− 0.58
	14	λ Aquarii	E.	.	21.0	23.7	25.2	31.5	33.6	35.7	41.7	43.4	45.9	45 33.52	− 0.54	+13.11	+13.11	22 45 46.19	+ 0.16
	15	Moon I, S.	E.	.	. .	. .	28.5	30.7	32.7	34.7	36.8	. .	. .	1 32.68	− 0.54	. .	+13.11	23 1 45.25	+62.0
	16	α Andromedæ, (R)	E.	.	10.2	13.4	15.0	22.0	24.2	26.6	33.6	35.2	37.8	1 24.22	− 0.07	. .	+13.12	0 1 37.27	− 0.09
	17	γ Pegasi	E.	.	3.8	6.7	8.2	14.5	16.8	18.7	25.1	26.8	29.1	6 16.63	− 0.38	+13.19	+13.12	0 6 29.37	− 0.09
	18	Jupiter I, S.	E.	.	29.6	32.1	33.7	. .	. .	. .	50.0	51.4	53.5	24 41.71	− 0.47	. .	+13.12	0 24 54.36	. .
	19	Jupiter II, N.	E.	.	. .	. .	40.9	43.0	45.2	47.0	49.1	. .	. .	24 45.05	− 0.47	. .	+13.12	0 25 7.70	. .
	20	β Ceti	E.	.	35.0	37.8	39.4	45.8	48.0	50.2	56.6	58.2	1.0	36 48.00	− 0.61	+13.16	+13.12	0 37 0.51	− 0.01
	21	32¹ Camelopard., S. P.	E.	.	. .	. .	18.9	58.6	38.4	19.4	58.8	. .	. .	47 38.82	− 3.71	. .	+13.12	12 47 48.23	− 7.32
	22	32² Camelopard., S. P.	E.	.	. .	. .	26.5	6.8	46.2	25.5	6.0	. .	. .	47 46.20	− 3.71	. .	+13.12	12 47 55.61	+ 0.06
	23	Neptune	E.	.	56.5	59.0	0.5	6.6	8.7	10.8	16.8	18.5	21.0	59 8.71	− 0.44	. .	+13.13	0 59 21.40	. .
	24	Polaris	E.	.	. .	. .	46.0	8.0	34.0	54.0	21.5	. .	. .	11 33.02	+13.36	. .	+13.13	1 11 59.51	+ 2.55
	25	α² Geminorum	E.	.	45.6	48.6	50.3	57.4	0.0	2.3	9.6	11.4	14.4	25 59.96	− 0.24	+13.15	+13.17	7 26 12.89	+ 0.22
	26	α Canis Minoris	E.	.	0.5	3.2	4.6	10.7	12.7	14.8	21.0	22.6	25.1	32 12.80	− 0.43	+13.25	+13.17	7 32 25.54	− 0.10
	27	β Geminorum	E.	.	49.6	52.5	54.1	1.3	3.6	5.9	12.5	14.7	17.3	37 3.50	− 0.27	+13.25	+13.17	7 37 16.40	− 0.05
	28	λ Ursæ Min., S. P.	E.	.	. .	. .	24.5	31.0	48.0	5.5	. .	. .	. .	55 50.35	−18.15	. .	+13.18	19 55 45.38	+ 2.36
	29	Venus II, S.	F.	3	36.6	39.2	40.6	46.7	49.0	50.9	57.0	58.7	1.2	27 48.88	− 0.43	. .	+13.12	11 28 1.57	− 0.60
	30	γ Ursæ Majoris	F.	.	. .	. .	31.9	35.4	39.0	42.3	46.0	. .	. .	46 38.92	− 0.01	. .	. .	. . . . .	. .
27	31	Polaris, S. P.	T.	.	. .	. .	44.0	23.0	1.0	35.0	10.0	. .	. .	11 58.30	−11.86	. .	+13.33	1 11 59.77	+ 3.47
28	32	Sun I, N	T.	.	32.7	35.4	36.8	43.2	45.4	47.4	53.6	55.4	58.0	11 45.32	− 0.51	. .	+13.33	14 11 58.14	. .
	33	Sun II, S.	T.	.	. .	54.3	56.6	58.6	0.6	2.9	7.0	8.5	11.2	13 58.60	− 0.51	. .	+13.33	14 14 11.42	. .
	34	θ Aquarii	T.	.	29.0	31.7	33.0	39.4	41.5	43.3	49.7	51.2	53.7	9 41.39	− 0.48	+13.43	+13.40	22 9 54.31	− 0.04
	35	π Aquarii	T.	.	9.3	11.8	13.3	19.5	21.6	23.5	29.7	31.3	33.8	18 21.53	− 0.44	+13.39	+13.40	22 18 34.49	0.00
	36	9 Draconis, S. P.	T.	.	. .	. .	52.5	44.0	35.0	26.9	17.6	. .	. .	23 35.20	− 1.54	. .	+13.40	10 23 47.06	+ 0.44
	37	ζ Pegasi, (R.)	T.	.	29.6	32.3	33.8	40.1	42.1	44.2	50.3	52.0	54.5	34 42.10	− 0.17	. .	+13.40	22 34 55.33	+ 0.14
	38	λ Aquarii	T.	.	20.8	23.4	25.1	31.0	33.2	35.1	41.4	43.1	45.5	45 33.18	− 0.48	+13.37	+13.40	22 45 46.10	+ 0.09
	39	α Piscis Australis	T.	.	56.7	59.7	1.4	8.6	11.0	13.1	20.2	22.0	25.0	50 10.86	− 0.63	+13.37	+13.40	22 50 23.63	+ 0.02
	40	α Pegasi, (R.)	T.	.	48.0	50.6	52.1	58.5	0.7	2.7	9.1	10.7	13.3	58 0.63	− 0.14	. .	+13.40	22 58 13.89	+ 0.02
	41	ο Cephei	T.	.	32.3	39.1	42.8	59.0	4.1	9.3	25.7	29.6	36.0	13 4.21	+ 0.27	. .	+13.40	23 13 17.88	+ 0.19
	42	θ Piscium	T.	.	53.8	56.3	57.8	4.0	6.2	8.2	14.4	16.0	18.5	21 6.13	− 0.41	+13.36	+13.40	23 21 19.12	+ 0.04
	43	ι Piscium, (R.)	T.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . . .	. .	. .	. .	. . . . .	. .
	44	4163 Groombridge	T.	.	36.1	45.0	50.0	12.3	20.0	27.0	48.3	53.7	3.2	48 19.51	+ 0.55	. .	+13.41	23 48 33.47	+ 0.34
	45	ω Piscium	T.	.	. .	17.8	18.7	21.7	23.9	26.0	30.0	31.6	34.1	52 21.82	− 0.40	+13.45	+13.41	23 52 34.83	− 0.06
	46	α Andromedæ, (R.)	T.	.	10.1	12.8	14.6	19.5	21.5	24.0	33.1	34.9	37.8	1 23.92	− 0.03	. .	+13.41	0 1 37.30	− 0.05
	47	γ Pegasi	T.	.	3.7	6.3	7.8	14.0	16.3	18.4	24.8	26.4	29.1	6 16.31	− 0.36	+13.48	+13.41	0 6 29.36	− 0.09
	48	Jupiter I, S.	T.	.	44.3	47.0	48.5	. .	. .	. .	4.8	6.2	8.8	23 56.60	− 0.43	. .	+13.41	0 24 9.58	. .

5. Observed over wire VI and E_3–E_8.
7.12.21.22.30. Bisections over sets B and D.
31. Seems one rev. wrong in N. P. D.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	344 24	9 28.9	25.1	24.2	23.6	22?	. .	. .	. .	225	183	12.6	344 28 27.9	. .	− 16.1	35 34 33.0	− 1.9
2	359 48	10.0	6.6	5.0	5.4	23?	920	815	. .	780	670	12.6	359 51 52.9	. .	− 0.1	50 58 14.0	− 0.7
3	307 28	8.7	6.8	6.6	7.8	25	300	310	350	320	215	12.6	307 31 28.9	. .	− 1 14.5	358 36 35.6	0.0
4	51 16	9.3	5.5	0.5	4.3	25	. .	. .	940	950	. .	12.6	51 19 21.2	503	+ 1 11.1	102 26 53.5	− 6.9
5	309 56	10.0	6.6	4.7	6.7	26	. .	220	670	800	780	12.6	309 59 31.6	. .	− 1 9.0	1 4 43.8	+ 0.1
6	27 58	10.5	6.7	2.2	4.5	25	. .	790	. .	810	. .	12.6	28 1 22.8	. .	+ 30.9	79 8 14.9	+ 0.6
7	211 2	7.2	8.5	4.8	2.8	26	. .	230	228	230	. .	12.6	211 5 16.2	. .	+ 35.2	20 0 29.8	− 4.2
8	29 34	12.0	7.7	1.8	6.0	29	570	560	. .	330	310	12.6	29 36 26.1	. .	+ 33.2	80 43 20.5	− 0.3
9	214 8	6.0	7.2	3.8	2.5	27	. .	. .	. .	460	350	12.6	214 10 56.2	. .	+ 39.8	16 54 45.2	− 1.6
10	39 46	11.8	7.1	1.8	6.5	22	890	965	. .	910	890	12.6	39 50 6.0	. .	+ 48.9	90 57 16.1	+ 0.7
11	47 16	12.3	9.5	6.3	7.2	28	530	350	. .	350	420	12.6	47 18 39.8	600	+ 1 3.6	98 26 4.6	+ 0.4
12	295 16	8.2	5.3	3.0	6.0	28	. .	490	418	480	. .	12.6	295 18 42.3	. .	− 2 3.5	346 23 0.0	− 0.2
13	323 18	11.4	7.4	6.3	7.7	26	. .	950	. .	810	. .	12.6	323 21 4.1	. .	− 43.7	14 26 41.6	− 0.9
14	47 6	9.5	7.3	2.5	4.5	26	770	630	. .	595	535	12.6	47 9 9.8	. .	+ 1 3.4	98 16 34.4	− 0.6
15	47 46	11.7	9.0	2.2	5.7	27	. .	520	560	700	. .	12.6	47 48 54.1	. .	+ 1 5.0	98 56 20.3	
16	169 26	11.2	9.5	5.0	4.5	28	. .	780	. .	675	. .	12.6	169 28 36.7	. .	− 11.0	71 37 55.5	+ 0.9
17	24 22	11.9	6.4	2.6	4.5	23	900	785	. .	750	700	12.6	24 25 53.2	. .	+ 26.9	75 32 41.3	+ 0.8
18	37 52	11.2	7.6	1.8	6.4	22	895	870	. .	. .	. .	12.6	37 56 7.6	. .	+ 46.1	89 3 14.9	− 1.3
19	37 52	11.2	7.6	1.8	6.4	25	. .	. .	. .	805	910	12.6	37 55 20.0	. .	+ 46.1	89 2 27.3	− 1.3
20	57 32	8.2	4.1	28.0	1.3	29	235	090	. .	035	065	12.6	57 34 35.0	. .	+ 1 33.0	108 42 29.2	+ 0.6
21	303 0	6.7	3.1	0.3	3.3	27	. .	260	. .	410	. .	12.6	303 3 1.5	. .	− 1 30.9	354 7 51.8	+20.5
22	303 0	6.7	3.1	0.3	3.3	28	. .	540	. .	640	. .	12.6	303 2 42.3	. .	− 1 30.9	354 7 32.6	+ 1.3
23	34 18	11.7	7.7	1.5	6.3	24	970	920	. .	910	850	12.6	34 21 35.5	. .	+ 40.5	85 28 37.2	− 0.2
24	310 16	8.8	5.8	3.5	5.3	20	590	740	590	590	670	12.6	310 18 12.7	. .	− 1 9.8	1 22 24.1	− 0.2
25	6 40	6.9	3.0	0.0	1.3	26	. .	. .	. .	290	. .	12.6	6 43 17.7	. .	+ 7.0	57 49 45.9	+ 0.8
26	33 16	10.1	6.9	3.0	5.3	25	. .	380	. .	535	. .	12.6	33 19 27.6	. .	+ 39.4	84 26 28.2	+ 0.5
27	10 30	7.0	3.2	29.5	1.8	26	. .	860	. .	720	. .	12.6	10 33 10.8	. .	+ 11.2	61 39 43.2	+ 2.1
28	307 46	6.0	3.0	0.0	1.7	22	780	760	860	720	. .	12.6	307 50 12.0	. .	− 1 17.1	358 55 16.1	− 0.2
29	34 16	7.5	3.7	1.0	2.6	25	. .	890	. .	968	870	12.5	34 19 22.8	630	+ 40.4	85 26 24.4	− 5.2
30	344 24	3.4	29.1	28.1	28.3	21	864	862	. .	658	662	12.5	344 28 30.6	. .	− 16.4	35 34 35.4	+ 0.2
31	307 28	8.6	7.0	4.4	5.1	24	. .	582	470	364	. .	12.3	307 31 42.3	. .	− 1 13.6	358 36 49.9	+13.6
32	51 56	8.6	3.2	29.2	0.3	24	889	882	. .	. .	. .	12.3	51 59 41.0	427	+ 1 12.1	103 7 14.3	− 7.0
33	52 28	14.4	9.3	4.3	4.8	22	. .	. .	. .	918	972	12.3	52 32 2.0	. .	+ 1 13.4	103 39 36.6	− 7.0
34	47 16	12.7	9.5	3.6	6.2	28	. .	460	. .	461	. .	12.3	47 18 39.6	579	+ 1 3.3	98 26 4.1	− 0.3
35																	
36	295 16	11.3	8.9	4.8	8.3	28	233	192	. .	245	238	12.3	295 18 40.7	583	− 2 3.1	346 22 58.8	− 0.9
37	151 12	9.8	8.0	3.0	3.5	23	. .	801	. .	906	. .	12.3	151 15 52.0	. .	− 32.1	79 51 1.3	− 0.3
38	47 6	11.4	8.8	2.5	5.5	26	. .	650	. .	504	. .	12.3	47 9 9.4	. .	+ 1 3.1	98 16 33.7	− 1.5
39	69 6	12.5	9.3	2.3	7.0	22	. .	532	. .	392	. .	12.3	69 10 11.4	592	+ 2 32.9	120 19 5.5	+ 0.5
40	155 34	9.2	6.5	0.8	2.0	27	. .	759	. .	646	. .	12.3	155 36 54.6	. .	− 26.6	75 29 53.2	+ 2.1
41	331 26	10.9	8.2	4.0	5.5	21	. .	937	. .	000	. .	12.3	331 30 20.6	. .	− 31.9	22 36 9.9	+ 0.3
42	33 10	10.5	7.6	0.1	3.3	25	. .	840	. .	639	. .	12.3	33 13 23.9	. .	+ 38.5	84 20 23.6	− 1.2
43	146 0	10.1	2.3	2.5	3.3	31	. .	172	. .	070	. .	12.3	146 2 2.3	603	− 39.6	85 4 58.5	− 2.1
44	325 10	14.6	12.3	8.3	10.5	25	. .	. .	412	480	. .	12.3	325 13 23.0	. .	− 40.8	16 19 3.4	+ 1.9
45	32 42	13.4	10.6	3.6	7.8	28	. .	169	. .	209	. .	12.3	32 44 43.0	608	+ 37.8	83 51 42.0	− 1.5
46	169 26	8.2	6.4	1.2	1.2	28	. .	882	. .	810	782	12.3	169 28 37.2	. .	− 10.9	61 37 54.9	+ 0.5
47	24 22	10.5	6.7	0.5	4.3	23	. .	676	. .	838	. .	12.3	24 25 54.2	610	+ 26.7	75 32 42.1	+ 1.7
48	37 56	11.6	8.3	3.6	5.3	21	035	250	. .	. .	. .	12.3	38 0 33.4	. .	+ 46.0	89 7 40.6	− 1.3

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
15	− 40 11.8	− 14 52.3

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellaneous Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Oct. 28	1	Jupiter II, N. . .	T.	.	. .	. .	55.6	57.6	59.7	1.7	3.8	. .	. .	23 56.68	− 0.43	. .	+13.41	0 24 12.66	. .
	2	Moon I, S. . .	T.	.	28.2	30.7	32.1	38.4	40.5	42.5	48.7	50.5	53.0	36 40.51	− 0.44	. .	+13.41	0 36 53.48	+62.5
	3	32¹ Camelopard., S. P.	T.	.	39.4	12.0	58.0	. .	. .	. .	18.2	3.0	38.1	47 38.42	− 3.13	. .	+13.42	12 47 48.41	− 7.3
	4	32² Camelopard., S. P.	T.	.	. .	. .	25.2	5.1	45.4	26.0	5.3	. .	. .	47 45.40	− 3.13	. .	+13.42	12 47 55.69	− 0.04
	5	ε Piscium . . .	T.	.	43.5	45.9	47.4	53.6	55.7	57.7	4.0	5.5	8.0	55 55.70	− 0.40	+13.43	+13.42	0 56 8.72	− 0.0
	6	Neptune . . .	T.	3	44.5	47.2	48.6	55.0	56.8	58.9	5.0	6.5	9.0	58 56.83	− 0.41	. .	+13.42	0 59 9.84	. .
	7	Polaris, (R.) . .	T.	.	53.0	. .	48.0	15.0	. .	. .	. .	. .	. .	11 37.50	+16.88	. .	+13.42	1 12 7.80	+11.5
	8	Polaris	T.	.	. .	. .	. .	. .	35.0	57.0	26.0	13.0	12.0	11 35.42	+11.06	. .	+13.42	1 11 59.90	+ 3.0
	9	Uranus I. . . .	T.	.	15.5	18.3	19.7	. .	. .	. .	. .	39.3	43.0	15 28.73	− 0.30	. .	+13.47	7 15 41.90	. .
	10	Uranus II, N. .	T.	.	. .	. .	24.6	27.0	29.1	31.2	33.5	. .	. .	15 29.08	− 0.30	. .	+13.47	7 15 42.25	. .
	11	α Geminorum . .	T.	.	45.4	48.3	50.2	57.4	0.0	2.2	9.4	11.4	14.2	25 59.84	− 0.24	+13.34	+13.47	7 26 13.07	+ 0.3
	12	α Canis Minoris .	T.	.	0.0	2.8	4.1	10.4	12.6	14.7	20.7	22.5	24.9	32 12.52	− 0.41	+13.57	+13.47	7 32 25.58	− 0.12
	13	β Geminorum . .	T.	.	49.6	52.5	54.1	1.1	3.4	5.6	12.6	14.5	17.3	37 3.41	− 0.27	+13.41	+13.47	7 37 16.61	+ 0.0
	14	φ Geminorum . .	T.	.	0.3	3.2	5.0	11.9	14.1	16.5	23.3	25.0	27.9	45 14.13	− 0.28	+13.46	+13.47	7 45 27.32	− 0.0
	15	λ Ursæ Minoris, S. P.	T.	.	. .	. .	12.0	22.0	34.0	46.0	56.0	. .	. .	55 33.60	−15.12	. .	+13.47	19 55 31.95	− 8.0
	16	C Præsepe . . .	T.	3	48.5	51.1	52.6	59.3	1.4	3.6	10.1	11.7	14.4	30 1.41	− 0.33	. .	+13.48	8 30 14.56	+ 4.0
	17	I Præsepe . . .	T.	.	22.0	24.7	26.2	32.8	34.9	37.1	43.4	45.5	48.0	32 34.96	− 0.33	. .	+13.48	8 32 48.11	+ 4.0
	18	ε Hydræ	T.	.	23.0	26.0	27.5	33.7	35.4	37.8	44.0	45.5	48.0	39 35.65	− 0.40	+13.64	+13.48	8 39 48.73	− 0.1
	19	Venus II, S. . .	E.	.	11.7	14.2	15.6	22.0	24.0	26.0	32.2	33.8	36.3	36 23.98	− 0.33	. .	+13.58	11 36 37.23	− 0.6
	20	β Leonis	E.	.	54.2	57.0	58.3	4.8	7.0	9.1	15.3	17.0	19.6	42 6.92	− 0.29	+13.58	+13.58	11 42 20.21	+ 0.01
	21	γ Ursæ Majoris .	E.	.	17.6	22.0	24.4	35.0	38.7	42.0	52.6	55.4	59.6	46 38.59	− 0.07	. .	+13.58	11 46 52.10	+ 0.0
	22	α Canum Venat . .	E.	.	. .	. .	. .	. .	39.9	42.6	48.0	49.8	53.0	49 37.35	− 0.18	+13.58	+13.60	12 49 50.77	+ 0.0
	23	Polaris, S. P . .	E.	.	. .	. .	40.0	14.5	55.0	30.0	3.0	. .	. .	11 52.16	− 7.25	. .	+13.60	1 11 58.51	+ 2.34
	24	α Virginis . . .	E.	.	. .	. .	. .	2.0	4.0	6.0	10.4	12.0	14.6	18 2.05	− 0.39	+13.57	+13.60	13 18 15.26	+ 0.04
29	25	Sun I, N. . . .	E.	.	25.0	27.8	29.2	35.3	37.6	39.9	46.2	47.8	50.5	15 37.70	− 0.41	. .	+13.61	14 15 50.90	. .
	26	Sun II, S. . . .	E.	.	. .	. .	47.0	49.3	51.3	53.4	55.6	. .	. .	17 51.32	− 0.41	. .	+13.61	14 18 4.52	. .
	27	Mercury, (center) .	E.	.	. .	. .	. .	. .	. .	32.6	33.6	34.6	35.9	9 3.26	− 0.44	. .	+13.63	15 9 16.45	+ 0.1
	28	α Serpentis . . .	E.	.	20.9	23.6	25.0	31.2	33.2	35.3	41.8	43.1	45.6	37 33.30	− 0.32	+13.50	+13.63	15 37 46.61	+ 0.13
	29	ζ Cygni	E.	.	53.3	56.5	58.0	5.3	7.5	10.0	17.0	18.6	21.6	7 7.53	− 0.22	+13.70	+13.70	21 7 21.01	− 0.01
	30	1 Pegasi	E.	.	34.3	37.1	38.6	45.4	47.6	49.7	56.1	57.7	0.5	15 47.44	− 0.27	+13.75	+13.70	21 16 0.87	− 0.13
	31	24 Ursæ Majoris, S.P.	E.	.	. .	. .	46.5	40.7	34.3	28.4	22.5	. .	. .	22 34.48	− 0.77	. .	+13.70	9 22 47.41	+ 0.5
	32	ξ Aquarii . . .	E.	.	20.0	22.6	24.0	30.1	32.1	34.1	40.4	42.0	44.5	30 32.20	− 0.38	+13.66	+13.70	21 30 45.52	+ 0.02
	33	11 Cephei, (R.) . .	E.	.	9.4	17.2	22.0	40.1	46.9	53.1	11.3	16.0	23.7	37 46.63	+ 0.60	. .	+13.70	21 40 0.93	− 0.52
	34	79 Draconis, (R.) .	E.	.	. .	. .	. .	. .	. .	. .	29.3	35.1	43.7	51 59.47	+ 0.72	. .	+13.70	21 52 13.89	+ 0.23
	35	α Aquarii . . .	E.	.	36.9	39.4	41.0	47.3	49.3	51.2	57.2	58.7	1.3	58 49.14	− 0.35	+13.64	+13.71	21 59 2.50	+ 0.0
	36	32 Ursæ Majoris, S.P.	E.	.	. .	. .	23.2	17.5	12.3	8.0	2.2	. .	. .	8 12.64	− 0.66	. .	+13.71	10 8 25.69	+ 0.31
	37	π Aquarii, (R.) . .	E.	.	8.9	11.2	12.6	19.0	20.9	23.0	29.0	30.6	33.1	18 20.92	− 0.22	. .	+13.71	22 18 34.41	− 0.0
	38	η Aquarii . . .	E.	.	11.2	13.7	15.3	21.5	23.5	25.5	31.6	33.0	35.6	28 23.43	− 0.35	+13.69	+13.71	22 28 36.79	+ 0.02
	39	ζ Pegasi, (R.) . .	E.	.	59.3	1.7	3.3	9.5	11.5	13.6	20.0	21.5	24.0	34 11.60	− 0.16	. .	+13.71	22 34 25.15	− 0.03
	40	λ Aquarii . . .	E.	.	20.4	23.0	24.5	30.7	32.8	34.8	41.0	42.4	45.1	45 32.74	− 0.38	+13.70	+13.72	22 45 46.08	+ 0.05
	41	α Pegasi, (R.) . .	E.	.	47.7	50.1	51.6	58.0	0.2	2.3	8.7	10.1	12.9	58 0.18	− 0.14	. .	+13.72	22 58 13.76	− 0.10
	42	o Cephei	E.	.	31.9	38.3	42.0	58.0	3.6	8.6	24.6	28.9	35.1	13 3.45	+ 0.47	. .	+13.72	23 13 17.64	− 0.02
	43	λ Draconis, S. P. .	E.	.	52.9	46.2	42.0	23.9	17.2	11.9	53.8	49.5	41.7	23 17.68	− 0.76	. .	+13.72	11 23 30.64	+ 0.24
	44	γ Cephei, (R.) . .	E.	.	55.8	6.9	13.3	40.7	49.3	58.6	25.5	32.0	43.5	33 49.51	+ 0.99	. .	+13.73	23 34 4.23	− 0.15
	45	Jupiter I, S. . .	E.	.	22.4	24.6	26.0	. .	. .	. .	43.1	44.1	46.8	23 34.50	− 0.34	. .	+13.74	0 23 47.90	. .
	46	Jupiter II, N. . .	E.	.	. .	. .	33.7	35.7	37.8	40.0	41.9	. .	. .	23 37.82	− 0.34	. .	+13.74	0 23 51.22	. .
	47	21 Cassiopeæ . .	E.	.	7.4	16.9	22.8	45.4	52.6	59.9	23.0	28.5	38.5	35 52.78	+ 0.30	. .	+13.74	0 36 6.82	+ 0.05
	48	Neptune . . .	E.	.	38.5	41.0	42.3	48.6	50.8	52.7	58.7	0.0	2.9	58 50.61	− 0.33	. .	+13.74	0 59 4.02	. .
	49	Polaris	E.	.	. .	. .	51.0	10.5	35.0	3.0	27.0	. .	. .	11 37.60	+ 6.66	. .	+13.75	1 11 58.01	+ 1.91
	50	θ¹ Ceti	E.	.	2.7	5.4	6.8	13.3	15.1	17.3	23.5	25.0	27.6	17 15.19	− 0.38	+13.66	+13.75	1 17 28.56	+ 0.09

2.3.4. Bisections at sets B and D.
5. Seems one rev. wrong.
7. Observed over B_1, C_1, and C_2.
27. Last four wires of set E.
36.43.47. Bisections at wires C_1, C_3, and C_5.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	37 56	11.6	8.3	3.6	5.3	24	. .	. .	. .	184	282	12.3	37 59 44.1	. .	+ 46.0	89 6 51.3	− 1.3
2	39 30	18.0	14.8	8.9	11.3	29	121	. .	185	. .	261	12.3	39 32 23.3	618	+ 48.7	90 39 23.2	
3	303 0	3.5	0.7	27.5	0.7	27	571	. .	. .	. .	434	12.3	303 3 0.9	. .	− 1 30.4	354 7 51.7	+21.3
4	303 0	3.5	0.7	27.5	0.7	28	. .	792	. .	840	. .	12.3	303 2 41.3	620	− 1 30.5	354 7 32.0	+ 1.6
5	31 38	15.5	12.6	6.0	9.5	24	. .	066	. .	856	. .	12.3	31 41 45.6	. .	+ 36.4	82 48 43.2	−16.2
6	34 20	8.3	5.0	28.5	2.4	28	. .	653	. .	410	. .	12.3	34 22 43.0	. .	+ 40.4	85 29 44.6	− 0.2
7	229 38	7.8	6.8	2.5	3.3	24	028	302	231	150	. .	12.3	229 41 47.7	. .	+ 1 9.5	1 23 24.0	+ 0.4
8	310 16	9.0	6.4	2.5	6.0	30	. .	. .	353	350	485	12.3	310 18 12.2	624	− 1 9.5	1 23 23.9	+ 0.3
9	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . . .	704			
10	16 6	9.8	6.5	1.7	3.6	23	. .	. .	. .	. .	706	12.7	16 9 54.4	704	+ 17.5	67 16 33.1	− 0.1
11	6 40	4.2	29.7	25.8	27.9	24	. .	528	. .	326	. .	12.7	6 43 50.6	. .	+ 7.1	57 50 18.9	+33.7
12	33.16	9.6	6.4	1.0	3.7	25	. .	623	. .	496	. .	12.7	33 19 27.3	. .	+ 39.6	84 26 28.1	+ 0.2
13	10 30	8.2	4.3	0.6	2.7	26	. .	939	. .	844	. .	12.7	10 33 8.3	703	+ 11.2	61 39 40.7	− 1.3
14	11 42	8.1	5.0	0.9	2.8	17	. .	. .	. .	872	. .	12.7	11 47 24.9	. .	+ 12.6	62 53 58.7	+ 0.5
15	307 46	8.7	6.7	3.0	6.4	22	447	493	531	422	479	12.7	307 50 13.2	702	− 1 17.4	358 55 17.0	+ 0.7
16	19 6	11.5	8.2	2.9	6.8	23	. .	503	. .	395	. .	12.7	19 9 57.6	. .	+ 20.9	70 16 39.7	+11.3
17	19 2	8.7	5.3	0.6	3.4	28	. .	615	. .	514	532	12.7	19 4 41.9	708	+ 20.8	70 11 23.9	+11.5
18	31 56	9.5	6.6	1.1	4.9	27	. .	083	. .	981	. .	12.7	31 59 4.4	708	+ 37.6	83 6 3.2	− 1.2
19	35 4	10.8	7.8	5.3	5.8	27	030	032	. .	775	780	12.8	35 7 4.6	. .	+ 41.8	86 14 7.6	− 5.3
20	33 30	10.8	8.4	2.8	3.2	20	. .	140	. .	230	. .	12.8	23 34 48.4	. .	+ 25.9	74 41 35.5	+ 2.0
21	344 24	8.0	2.6	1.4	2.7	21	735	600	. .	500	515	12.8	344 28 30.3	. .	− 16.5	35 34 35.0	− 0.8
22	359 48	10.0	6.2	3.8	4.4	23	. .	. .	. .	820	835	12.8	359 51 52.3	. .	− 0.1	50 58 13.4	− 2.2
23	307 28	6.0	4.0	2.7	2.8	25	440	500	410	365	390	12.8	307 31 30.6	. .	− 1 16.4	358 36 35.4	− 1.1
24	49 18	4.8	2.0	28.2	29.8	28	. .	. .	. .	442	. .	12.8	49 20 46.4	. .	+ 1 8.3	100 28 15.9	− 2.1
25	52 18	9.8	5.8	1.9	4.2	33	260	420	. .	. .	. .	12.8	52 19 29.3	. .	+ 1 15.4	103 27 5.9	− 7.0
26	52 50	6.4	3.5	29.3	2.3	31	. .	. .	. .	890	150	12.8	52 51 49.2	610	+ 1 16.8	103 59 27.2	− 7.1
27																	
28	31 58	13.5	9.8	6.2	7.2	21	650	770	. .	560	400	12.8	32 2 24.0	. .	+ 36.4	83 9 21.6	+ 2.8
29	9 8	11.0	6.7	3.0	6.0	24	170	280	. .	970	930	12.8	9 11 48.7	. .	+ 9.5	60 18 19.4	+ 0.1
30	19 36	10.5	7.2	3.5	5.2	29	. .	. .	. .	645	. .	12.8	19 38 22.7	. .	+ 21.0	70 45 4.9	+ 0.4
31	289 16	9.3	6.0	4.5	4.2	21	590	565	530	560	570	12.8	289 20 26.5	. .	− 2 45.9	340 24 1.8	+ 3.2
32	47 16	9.8	6.5	2.5	4.3	27	. .	645	. .	. .	. .	12.8	47 18 55.6	. .	+ 1 3.7	98 26 20.5	− 3.1
33	211 46	8.5	8.7	5.2	5.3	28	. .	970	. .	935	. .	12.8	211 48 32.2	. .	+ 36.5	19 17 12.5	− 0.4
34	214 8	4.0	3.7	1.3	29.5	27	. .	. .	. .	680	670	12.8	214 10 55.3	. .	+ 40.1	16 54 45.8	− 0.5
35	39 46	8.4	5.8	0.8	5.0	23	. .	. .	. .	785	760	12.8	39 49 54.9	. .	+ 49.3	90 57 5.4	−10.1
36	284 40	2.6	0.0	28.0	29.7	28	. .	020	080	090	. .	12.8	284 42 54.1	. .	− 3 41.9	335 45 33.4	+ 6.5
37	141 46	4.3	29.1	26.3	27.1	23	. .	. .	. .	690	. .	12.8	141 50 1.1	. .	− 46.6	89 17 6.7	− 2.8
38	39 36	11.2	6.7	2.1	5.4	22	. .	130	. .	200	. .	12.8	39 40 18.1	. .	+ 49.3	90 47 28.6	− 0.7
39	151 12	4.0	2.1	28.0	27.7	24	360	285	. .	130	100	12.8	151 15 52.5	. .	− 32.6	79 51 1.3	− 0.3
40	47 6	8.0	5.0	0.5	2.8	26	740	900	. .	780	790	12.8	47 9 9.4	. .	+ 1 4.2	98 16 34.8	− 0.4
41	155 34	2.8	0.0	26.0	26.8	29	030	. .	. .	890	860	12.8	155 36 41.7	. .	− 27.1	75 30 6.6	+15.6
42	351 26	5.5	1.4	29.3	1.0	22	. .	. .	. .	375	440	12.8	331 30 19.2	. .	− 32.5	22 36 7.9	− 1.4
43	288 56	5.0	1.2	0.0	1.2	24	820	. .	890	. .	740	12.8	288 59 42.0	705	− 2 52.7	340 3 10.5	+ 2.7
44	217 56	2.8	0.8	28.0	26.8	24	. .	530	540	400	. .	12.8	217 59 48.4	. .	+ 46.9	13 5 45.9	− 1.8
45	38 0	6.5	2.2	29.3	0.0	29	215	275	. .	. .	. .	12.8	38 2 35.2	. .	+ 47.1	89 9 43.5	− 1.3
46	38 0	6.5	2.2	29.3	0.0	31	. .	. .	. .	995	980	12.8	38 1 51.1	. .	+ 47.1	89 8 59.4	− 1.3
47	324 34	9.5	5.5	4.0	6.0	23	230	. .	060	. .	300	12.8	324 38 2.5	. .	− 42.8	15 43 40.9	− 1.8
48	34 20	5.0	0.8	26.8	29.5	26	540	660	. .	510	540	12.8	34 23 16.7	. .	+ 41.3	85 30 19.2	− 0.2
49	310 14	6.2	3.2	1.5	3.5	22	760	740	765	670	650	12.8	310 18 12.6	. .	− 1 11.1	1 23 22.7	− 0.6
50	47 40	3.5	0.8	26.5	27.3	22	. .	. .	. .	762	. .	12.8	47 44 14.9	. .	+ 1 6.4	98 51 42.5	+ 1.0

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
2	− 35 0.3	− 15 5.3

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Oct. 29	1	Moon I, S. . . .	E.	.	9.3	12.1	14.0	19.9	22.3	24.3	30.3	32.0	34.5	25 22.08	− 0.35	. .	+13.75	1 25 35.48	+63.21
	2	α^2 Geminorum . .	E.	.	44.9	47.8	49.7	57.0	59.4	1.8	9.0	10.9	13.6	25 59.34	− 0.21	+13.84	+13.82	7 26 12.95	+ 0.18
	3	α Canis Minoris .	E.	.	59.8	2.4	3.8	10.0	12.3	14.1	20.3	21.8	24.4	32 12.10	− 0.33	+13.94	+13.82	7 32 25.59	− 0.14
	4	β Geminorum . .	E.	.	49.0	51.9	53.6	0.6	2.9	5.3	12.3	13.9	16.8	37 2.92	− 0.23	+13.89	+13.82	7 37 16.51	− 0.07
	5	φ Geminorum . .	E.	.	59.9	2.9	4.3	11.2	13.6	16.0	22.8	24.5	27.5	45 13.63	− 0.24	+13.95	+13.83	7 45 27.22	− 0.16
	6	λ Ursæ Min., S. P. .	E.	.	. .	. .	11.0	22.0	30.0	49.0	1.0	. .	. .	55 34.18	− 9.22	. .	+13.83	19 55 38.79	− 0.58
	7	C Præsepe . . .	E.	.	48.1	50.7	52.3	59.0	1.2	3.3	9.8	11.5	14.5	30 1.16	− 0.27	. .	+13.84	8 30 14.73	+ 4.92
	8	I Præsepe . . .	E.	.	. .	. .	30.2	32.5	34.6	36.6	39.0	. .	. .	32 34.58	− 0.27	. .	+13.84	8 32 48.15	+ 4.95
	9	ε Hydræ	E.	.	23.1	25.7	27.2	33.4	35.4	37.2	43.4	45.0	47.6	39 35.33	− 0.32	+13.91	+13.84	8 39 48.85	− 0.07
	10	Venus I, C. S. .	F.	2	28.8	31.0	32.9	. .	. .	. .	49.4	50.9	53.2	40 41.03	− 0.40	. .	+13.84	11 40 54.47	. .
	11	Venus II, N. C. .	F.	3	. .	. .	37.8	40.0	42.1	44.0	46.1	. .	. .	40 42.00	− 0.40	. .	+13.84	11 40 55.44	. .
	12	α Canum Venat. .	F.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	13	Polaris, S. P. . .	F.	.	. .	. .	40.0	14.0	50.0	29.0	2.0	. .	. .	11 50.68	−11.55	. .	+13.86	1 11 52.99	− 3.05
	14	α Virginis . . .	F.	.	. .	52.0	53.5	57.9	0.2	. .	. .	. .	. .	18 1.98	− 0.47	+13.74	+13.86	13 18 15.37	+ 0.13
30	15	Sun S.	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	16	Sun II, N. . . .	F.	.	. .	40.9	42.8	45.0	47.1	49.0	53.3	55.0	57.7	21 44.96	− 0.49	. .	+13.88	14 21 58.35	−66.81
	17	δ Ophiuchi . . .	F.	.	. .	. .	. .	. .	37.5	40.5	41.5	42.7	43.7	7 13.00	− 0.43	+13.90	+13.90	16 7 26.47	+ 0.02
	18	α Scorpii	F.	3	52.8	55.7	57.3	4.6	7.0	8.8	15.7	17.3	20.1	21 6.59	− 0.58	+14.03	+13.90	16 21 19.91	− 0.11
	19	η Herculis . . .	F.	.	52.4	55.7	57.6	5.5	8.1	10.8	18.5	20.7	23.9	38 8.13	− 0.16	. .	+13.91	16 38 21.88	− 0.02
	20	κ Ophiuchi . . .	F.	.	59.9	4.0	8.1	10.2	12.2	14.2	16.4	20.3	24.7	51 12.22	− 0.36	+13.95	+13.91	16 51 25.77	− 0.01
	21	ε Ursæ Minoris .	F.	.	. .	. .	38.0	. .	. .	22.5	38.6	. .	. .	59 8.10	+ 2.25	. .	+13.92	16 59 24.27	+ 0.36
	22	α Aquarii . . .	F.	3	36.7	39.2	40.6	46.8	49.0	51.0	57.0	58.6	1.1	58 48.89	− 0.42	+13.95	+13.98	21 59 2.45	+ 0.02
	23	32 Ursæ Maj., S. P. .	F.	3	. .	. .	22.1	17.2	12.1	7.1	2.0	. .	. .	8 12.10	− 0.96	. .	+13.99	10 8 25.13	− 0.31
	24	π Aquarii, (R.) . .	F.	3	8.6	11.1	12.6	18.9	20.9	22.8	29.0	30.5	33.1	18 20.83	− 0.28	. .	+13.99	22 18 34.54	+ 0.08
	25	η Aquarii . . .	F.	4	11.0	13.5	15.0	21.1	23.2	25.2	31.3	32.8	35.4	28 23.17	− 0.42	+14.00	+13.99	22 28 36.74	− 0.01
	26	ζ Pegasi, (R.) . .	F.	.	29.1	31.6	33.1	39.4	41.5	43.4	49.6	51.2	53.8	34 41.41	− 0.21	. .	+13.99	22 34 55.19	+ 0.03
	27	λ Aquarii . . .	F.	.	20.2	22.7	24.2	30.5	32.6	34.6	40.8	42.3	44.9	45 32.53	− 0.46	+13.98	+14.00	22 45 46.07	+ 0.08
	28	α Pegasi, (R.) . .	F.	.	47.5	50.1	51.5	58.0	0.0	2.0	8.4	10.0	12.7	58 0.02	− 0.18	. .	+14.00	22 58 13.84	− 0.01
	29	o Cephei	F.	.	. .	52.9	58.2	3.5	8.8	14.0	24.6	28.9	35.1	13 3.46	+ 0.28	. .	+14.00	23 13 17.74	+ 0.12
	30	λ Draconis, S. P. .	F.	.	40.0	41.0	29.5	23.4	17.5	11.7	5.9	53.6	49.2	23 17.53	− 1.12	. .	+14.00	11 23 30.41	− 0.04
	31	Jupiter I, N. . .	F.	.	1.0	3.6	5.0	. .	. .	. .	21.5	22.9	25.5	23 13.25	− 0.41	. .	+14.02	0 23 26.86	. .
	32	Jupiter II, S. . .	F.	2	. .	. .	12.4	14.7	16.7	18.5	20.6	. .	. .	23 16.58	− 0.41	. .	+14.02	0 23 30.19	. .
	33	21 Cassiopeæ . . .	F.	2	. .	. .	45.5	. .	59.3	6.9	21.6	28.0	37.7	36 52.19	+ 0.60	. .	+14.02	0 37 6.81	+ 0.08
	34	Neptune . . .	F.	.	32.9	35.6	36.8	42.9	45.0	47.1	53.1	54.6	57.2	58 45.02	− 0.39	. .	+14.03	0 58 58.66	. .
	35	Polaris . . .	F.	.	. .	. .	40.0	1.0	30.0	52.0	19.0	. .	. .	11 28.68	+10.82	. .	+14.03	1 11 53.53	− 2.45
	36	η Piscium . . .	F.	3	2.3	4.8	6.5	12.9	15.0	17.1	23.5	25.1	27.5	24 14.97	− 0.33	+14.00	+14.03	1 24 28.67	+ 0.08
	37	Moon I, S. . .	F.	3	29.3	32.0	33.6	39.9	42.0	44.1	50.5	51.9	54.7	15 42.00	− 0.37	. .	+14.04	2 15 55.67	+64.46
	38	γ Ceti	F.	.	5.0	7.6	9.0	15.2	17.2	19.3	25.5	27.0	29.5	36 17.26	− 0.40	+14.06	+14.05	2 36 30.91	− 0.01
Nov. 2	39	β Ceti	N.	2	33.4	36.0	37.6	44.1	46.4	48.4	55.0	56.7	59.3	36 46.32	− 0.45	+14.65	+14.71	0 37 0.58	+ 0.09
	40	Neptune . . .	N.	3	15.5	17.9	19.4	25.5	27.6	29.7	35.7	37.3	39.8	58 27.60	− 0.35	. .	+14.72	0 58 41.97	. .
	41	ε Piscium . . .	N.	3	10.8	13.3	14.8	20.9	23.1	25.0	31.3	32.6	35.4	1 23.02	− 0.35	. .	+14.72	1 1 37.39	− 3.16
	42	Polaris	N.	3	. .	. .	45.0	9.0	34.0	57.0	23.5	. .	. .	11 34.02	+ 5.13	. .	+14.72	1 11 53.87	− 1.74
	43	Moon II, S. . .	N.	3	1.1	2.6	7.0	9.4	11.5	13.7	15.9	20.3	22.0	3 11.50	− 0.31	. .	+14.78	5 3 25.79	−69.24
	44	β Tauri	N.	3	32.0	35.0	36.6	43.7	46.0	48.3	55.3	57.0	0.0	17 45.99	− 0.25	+14.69	+14.79	5 18 0.53	+ 0.09
	45	δ Orionis . . .	N.	3	52.1	54.6	56.0	2.2	4.3	6.3	12.5	14.0	16.5	25 4.28	− 0.37	+14.77	+14.79	5 25 18.70	0.00
	46	Uranus . . .	N.	2	4.0	7.2	8.6	15.3	17.5	19.7	26.5	28.1	30.9	15 17.53	− 0.28	. .	+14.82	7 15 32.07	. .
	47	α^2 Geminorum . .	N.	1	. .	. .	. .	. .	. .	. .	8.3	10.0	13.0	25 58.60	− 0.25	+14.77	+14.82	7 27 13.17	+ 0.25
	48	α Canis Minoris .	N.	2	59.0	1.6	3.2	9.3	11.4	13.4	19.6	21.2	23.7	32 11.38	− 0.35	+14.80	+14.82	7 32 25.85	0.00
	49	β Geminorum . .	N.	2	48.3	51.2	52.8	0.0	2.2	4.5	11.5	13.2	15.4	37 2.17	− 0.26	+14.81	+14.83	7 37 16.74	+ 0.02

1. Bisections at wires III–V.
5. Wire A used.
17. R. A. over set E.
21.23.33. Bisections at sets B and D.
36. Micrometer reading suspicious.
37. Bisections at wires II–VI.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	35 7	12 16.4	12.4	8.7	8.5	20	750	860	935	000	970	12.8	35 11 32.2	. .	+ 42.6	86 18 36.0	
2	6 40	3.2	1.7	26.5	26.0	26	. .	. .	. .	710	480	12.8	6 43 16.7	. .	+ 7.2	57 49 45.1	− 0.2
3	33 16	12.5	9.5	6.4	7.6	25	. .	560	. .	290	. .	12.8	33 19 25.7	. .	+ 40.2	84 26 27.1	− 0.9
4	10 30	7.3	4.2	0.2	1.1	21	. .	810	. .	765	. .	12.8	10 33 10.7	. .	+ 11.4	61 39 43.3	+ 1.3
5	11 42	7.3	3.5	1.2	0.5	28	. .	. .	. .	185	305	12.8	21 47 22.0	. .	+ 12.7	62 53 55.9	− 2.4
6	307 46	4.7	1.5	29.5	1.1	23	000	990	910	660	780	12.8	307 50 11.7	. .	− 1 18.5	358 55 14.4	− 1.9
7	19 6	9.2	3.8	1.2	2.3	23	710	620	. .	. .	. .	12.8	19 9 58.4	. .	+ 21.2	70 16 40.8	+11.1
8	19 2	11.0	6.5	4.0	5.5	28	. .	. .	. .	455	. .	12.8	19 4 40.8	. .	+ 21.1	70 11 23.1	+11.4
9	31 56	12.2	7.6	3.5	6.4	26	820	880	. .	920	780	12.8	31 59 5.4	760	+ 38.1	83 6 4.7	+ 0.1
10	35 28	8.0	4.9	0.9	2.0	26	320	. .	. .	. .	030	13.7	35 31 20.1	712	+ 43.0	86 38 24.3	− 5.3
11	35 28	8.0	4.9	0.9	2.0	27	. .	652	. .	714	. .	13.7	35 30 57.0	. .	+ 43.0	86 38 1.2	− 5.3
12	359 48	7.4	4.3	2.0	3.0	23	. .	691	. .	784	. .	13.7	359 51 57.4	668	− 0.1	50 58 18.5	+ 2.6
13	307 28	5.4	3.5	1.2	3.3	25	425	438	366	460	296	13.7	307 31 32.4	. .	− 1 17.4	358 36 36.2	− 0.7
14	49 18	9.0	6.7	3.3	3.1	28	. .	. .	. .	. .	294	13.7	49 20 44.7	658	+ 1 9.2	100 28 15.1	− 3.0
15	53 8	7.9	4.3	0.2	3.1	25	. .	985	102	. .	. .	13.7	53 11 22.6	. .	+ 1 18.8	104 19 2.6	− 7.1
16	52 36	9.8	7.8	3.0	. .	27	. .	. .	. .	005	. .	13.7	52 39 3.7	624	+ 1 17.3	103 46 42.2	− 7.0
17	. .	. .	. .	. .	. .	.	. .	. .	. .	. .	. .	. .	. . . .	598			
18	64 56	5.0	2.8	28.4	0.3	25	. .	013	. .	948	. .	13.7	64 59 40.5	594	+ 2 5.1	116 8 6.8	+ 0.8
19	359 38	6.9	4.6	2.7	2.8	27	. .	. .	. .	. .	700	13.7	359 40 55.8	. .	− 0.3	50 46 16.7	+ 0.2
20																	
21	316 36	4.2	2.6	1.3	1.3	26	278	332	. .	. .	220	13.7	316 39 20.7	594	− 55.3	7 44 46.6	+ 1.8
22	39 46	7.6	4.0	29.1	2.9	23	008	988	. .	174	127	13.7	39 50 8.0	654	+ 49.6	90 57 18.8	+ 3.3
23	284 40	5.0	3.1	1.1	3.3	28	348	236	. .	228	163	13.7	284 42 49.1	. .	− 3 42.9	335 45 27.4	+ 0.7
24	141 46	5.1	2.9	28.5	29.6	23	. .	749	. .	780	. .	13.7	141 49 59.3	. .	− 46.7	89 17 8.6	− 0.9
25	39 36	7.5	4.2	29.4	3.1	22	400	228	. .	242	228	13.7	39 40 20.1	656	+ 49.3	90 47 30.6	+ 1.3
26	151 12	8.0	5.5	1.9	2.8	24	. .	072	. .	938	. .	13.7	151 15 52.4	. .	− 32.7	79 51 1.5	− 0.1
27	47 6	10 12.3	9.5	4.5	7.2	26	672	570	. .	488	496	13.7	47 9 9.8	. .	+ 1 4.1	98 16 35.1	− 0.2
28	155 34	7.0	3.8	29.6	0.6	27	929	867	. .	761	726	13.7	155 36.55.9	. .	− 27.0	75 29 52.3	+ 1.3
29	331 26	3.1	0.3	27.6	29.1	22	. .	. .	. .	656	617	13.7	331 30 17.3	. .	− 32.3	22 36 6.2	− 2.9
30	288 56	4.0	1.6	0.0	2.7	25	147	. .	. .	910	. .	13.7	288 59 38.6	662	− 2 51.6	340 3 8.2	+ 0.7
31	38 0	8.1	4.3	0.4	3.7	24	250	196	. .	. .	. .	13.7	38 3 50.8	. .	+ 46.7	89 10 58.7	− 1.3
32	38 0	8.1	4.3	0.4	3.7	20	. .	. .	. .	834	891	13.7	38 4 40.0	. .	+ 46.8	89 11 48.0	− 1.3
33	324 34	7.0	3.9	1.9	3.1	23	502	443	. .	411	. .	13.7	324 38 2.0	. .	− 42.4	15 43 40.8	− 1.5
34	34 20	6.9	2.0	27.5	1.1	23	. .	. .	. .	918	108	13.7	34 23 54.2	. .	+ 40.9	85 30 56.3	− 0.2
35	310 14	4.8	2.2	29.9	2.7	22	742	836	831	787	828	13.7	310 18 13.3	674	− 1 10.4	1 23 24.1	+ 1.2
36	24 10	11.8	8.1	4.1	6.4	26	. .	. .	. .	. .	593	13.7	24 13 9.1	676	+ 26.9	75 19 57.2	+ 5.2
37	30 54	10 12.4	10.5	5.2	7.9	25	186	458	648	792	035	13.7	30 57 23.5	. .	+ 35.8	82 4 20.5	
38	36 8	10.6	6.7	2.4	6.0	23	198	110	. .	093	082	13.7	36 12 4.3	679	+ 43.8	87 19 9.3	− 0.7
39	37 32	10 7.8	4.3	28.7	2.3	29	340	260	. .	221	170	13.3	57 34 33.1	676	+ 1 33.9	108 42 28.2	− 1.4
40	34 22	7.7	2.9	27.2	1.8	25	. .	. .	. .	400	344	13.3	34 25 32.5	. .	+ 41.0	85 32 34.7	− 0.2
41	33 52	9.4	4.8	29.8	3.4	24	. .	. .	845	. .	. .	13.3	33 55 39.6	. .	+ 40.3	85 2 41.1	−22.1
42	310 14	7.1	3.9	1.0	4.0	22	701	702	690	746	726	13.3	310 18 12.7	683	− 1 10.5	1 23 23.4	+ 1.6
43	21 16	10.5	6.7	3.0	6.0	26	140	138	230	315	400	13.3	21 19 16.0	721	+ 23.6	72 26 0.8	
44	10 20	7.0	3.6	0.6	2.6	23	. .	811	. .	675	. .	13.3	10 23 57.5	. .	+ 11.1	61 30 29.8	− 1.5
45	39 14	9.1	5.3	1.3	3.6	28	445	401	. .	305	271	13.3	39 16 45.5	721	+ 49.4	90 23 56.1	− 1.7
46	16 6	8.5	4.7	0.7	3.0	25	. .	. .	. .	890	810	13.3	16 9 23.6	728	+ 17.5	67 16 2.3	− 0.1
47	6 40	5.7	2.0	28.9	0.8	26	. .	. .	585	. .	466	13.3	6 43 16.0	. .	+ 7.1	57 49 44.3	− 1.3
48	33 16	8.0	5.4	0.8	3.0	25	798	750	. .	635	612	13.3	33 19 26.7	. .	+ 39.8	84 26 27.7	− 0.7
49	10 30	8.2	5.0	2.7	4.0	26	. .	. .	824	. .	. .	13.3	10 33 8.7	. .	+ 11.3	61 39 41.2	− 1.2

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
42	30.163	38.6	61.0
46	30.162	32.6	63.1

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
1	− 31 57.4	− 15 13.5
37	− 28 47.4	− 15 22.9
43	− 20 50.9	− 15 48.1

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Nov. 2	1	φ Geminorum . .	N.	2	59.0	2.0	3.8	10.5	12.9	15.0	21.8	23.7	26.4	45 12.79	− 0.27	+14.96	+14.83	7 45 27.35	− 0.17
	2	λ Ursæ Minoris, S. P.	N.	3	. .	. .	0.0	10.0	23.0	35.0	. .	. .	. .	55 22.65	− 7.23	. .	+14.83	19 55 30.25	− 3.91
	3	ρ Argus	N.	2	38.5	40.8	43.0	45.2	47.4	53.5	56.3	9.8	23.3	1 43.00	− 0.48	+14.86	+14.83	8 1 57.35	− 0.05
	4	I Præsepe . . .	N.	2	20.8	23.5	25.0	31.6	33.8	35.9	42.4	44.0	46.8	32 33.76	− 0.30	. .	+14.84	8 32 48.30	+ 4.52
	5	β Leonis	E.	.	53.0	55.7	57.2	3.7	5.8	7.8	14.1	15.7	18.4	42 5.71	− 0.33	+14.94	+14.93	11 42 20.31	0.00
	6	Venus II, S. . .	E.	.	45.0	47.6	49.3	55.4	57.4	59.5	5.5	7.3	9.6	57 57.40	− 0.39	. .	+14.93	11 58 11.94	. .
	7	α Canum Venat. .	E.	.	20.3	23.6	25.5	33.5	36.1	38.7	46.7	48.6	51.9	49 36.10	− 0.20	+14.95	+14.95	12 49 50.85	+ 0.01
	8	Polaris, S. P. .	E.	.	. .	. .	37.0	9.5	46.5	33.0	48.5	. .	. .	11 46.58	− 7.74	. .	+14.96	1 11 53.80	− 1.71
	9	α Virginis . . .	E.	.	. .	. .	. .	. .	25.6	28.8	29.8	30.8	31.9	18 0.79	− 0.44	+14.96	+14.96	13 18 15.31	+ 0.01
	10	η Ursæ Majoris . .	E.	.	45.4	49.4	51.7	1.1	4.4	7.7	17.2	19.7	23.5	42 4.46	− 0.13	. .	+14.97	13 42 19.30	+ 0.06
	11	η Bootis	E.	.	56.6	59.2	0.7	7.3	9.5	11.7	18.2	19.9	22.4	48 9.50	− 0.31	+15.03	+14.97	13 48 24.16	− 0.09
	12	α Bootis	E.	.	10.8	13.6	15.1	21.8	23.9	26.0	32.6	34.1	36.9	9 23.87	− 0.30	+15.03	+14.98	14 9 38.55	− 0.04
3	13	Sun I, N. . . .	E.	.	0.0	2.4	4.0	10.0	12.3	14.6	21.2	22.5	25.3	35 12.48	− 0.46	. .	+14.99	14 35 27.01	. .
	14	Sun II, S. . . .	E.	.	14.3	17.0	18.4	24.8	27.0	29.3	35.6	37.2	40.0	37 27.07	− 0.46	. .	+14.99	14 37 41.60	. .
	15	α Coronæ Borealis .	E.	.	37.3	40.3	41.9	49.0	51.0	53.4	0.2	2.0	4.9	28 51.11	− 0.27	+15.06	+15.01	15 29 5.85	− 0.05
	16	α Serpentis . . .	E.	.	. .	. .	. .	. .	56.4	59.4	0.6	1.6	2.6	37 31.77	− 0.36	+15.07	+15.01	15 37 46.42	− 0.06
	17	α Scorpii	E.	.	52.0	54.9	56.3	3.3	5.5	7.7	14.6	16.2	19.3	21 5.53	− 0.53	+15.03	+15.02	16 21 20.02	+ 0.01
	18	α Herculis . . .	E.	.	10.9	13.5	15.1	21.6	23.6	25.8	32.0	33.6	36.2	8 23 59	− 0.33	+14.96	+15.04	17 8 38.30	+ 0.08
	19	α Ophiuchi . . .	E.	.	21.9	24.5	26.0	32.4	34.5	36.5	42.7	44.4	47.0	28 34.43	− 0.34	+14.97	+15.05	17 28 49.14	+ 0.09
	20	μ Herculis . . .	E.	.	49.4	52.2	53.8	0.7	3.1	5.4	12.4	14.1	16.9	41 3.11	− 0.26	+15.02	+15.05	17 41 17.90	+ 0.03
	21	γ Draconis . . .	E.	.	57.0	1.3	3.7	13.7	17.0	20.2	30.0	32.4	36.4	53 16.86	− 0.10	. .	+15.05	17 53 31.81	− 0.12
	22	λ Ursæ Minoris . .	N.	5	. .	. .	29.0	18.0	6.5	53.0	43.0	. .	. .	55 6.30	+ 9.20	. .	+15.03	19 55 30.53	− 2.93
	23	κ Cephei, (R.) . .	N.	4	. .	. .	. .	. .	9.5	18.5	37.2	44.0	55.6	13 0.03	+ 1.01	.	+15.03	20 13 16.07	+ 0.27
	24	ε Delphini . . .	N.	5	28.7	31.3	32.8	39.2	41.3	43.3	49.5	51.0	53.7	26 41.20	− 0.35	+15.12	+15.04	20 26 55.89	− 0.07
	25	α Cygni, (R.). . .	N.	4	25.0	28.5	30.5	39.3	42.3	45.0	53.7	55.8	59.3	36 42.16	+ 0.06	. .	+15.04	20 36 57.26	− 0.03
	26	μ Aquarii . . .	N.	4	6.7	9.3	10.7	17.0	19.2	21.2	27.4	28.9	31.5	44 19.10	− 0.44	+15.08	+15.04	20 44 33.70	− 0.02
	27	ζ Cygni	N.	5	52.0	54.9	56.6	3.7	6.1	8.4	15.5	17.4	20.2	7 6.09	− 0.25	+15.07	+15.05	21 7 20.89	− 0.03
	28	1 Pegasi	E.	.	. .	. .	. .	. .	11.8	15.2	16.4	17.5	18.5	15 46.08	− 0.31	+15.06	+15.12	21 16 0.89	− 0.02
	29	24 Ursæ Majoris, S. P.	E.	.	9.7	2.3	57.9	39.3	33.5	27.3	9.1	4.2	56.7	22 33.23	− 0.84	. .	+15.12	9 22 47.61	+ 0.32
	30	ξ Aquarii . . .	E.	.	18.4	21.0	22.5	28.9	30.9	32.8	39.0	40.6	43.2	30 30.81	− 0.45	+15.04	+15.12	21 30 45.48	+ 0.06
	31	11 Cephei, (R.) . .	E.	.	8.1	16.0	20.3	39.7	45.3	51.1	10.0	14.5	22.2	39 45.24	+ 0.62	. .	+15.12	21 40 0.98	− 0.16
	32	79 Draconis, (R.). .	E.	.	. .	. .	47.7	53.3	0.0	7.7	15.1	. .	. .	51 0.76	+ 0.73	. .	+15.13	21 51 16.62	+ 0.31
	33	α Aquarii . . .	E.	.	35.4	38.0	39.5	45.7	47.7	49.7	55.7	57.3	0.0	58 47.67	− 0.40	+15.09	+15.13	21 59 2.40	+ 0.03
	34	32 Ursæ Majoris, S. P.	E.	.	41.5	35.0	31.5	16.0	11.2	6.3	51.9	47.8	41.6	8 11.43	− 0.70	. .	+15.13	10 8 25.86	+ 0.18
	35	π Aquarii, (R.) . .	E.	.	7.4	10.0	11.4	17.4	19.6	21.5	27.8	29.3	32.0	18 19.60	− 0.26	. .	+15.14	22 18 34.48	+ 0.08
	36	η Aquarii . . .	E.	.	9.8	12.4	13.8	20.0	22.1	24.1	30.3	31.8	34.4	28 22.08	− 0.40	+15.02	+15.14	22 28 36.82	+ 0.12
	37	ζ Pegasi, (R.) . .	E.	.	28.0	30.5	32.0	38.1	40.2	42.3	48.7	50.1	52.8	34 40.30	− 0.20	. .	+15.14	22 34 55.24	+ 0.13
	38	λ Aquarii . . .	E.	.	19.0	21.5	23.0	29.3	31.3	33.4	39.5	41.2	43.7	45 31.32	− 0.45	+15.14	+15.15	22 45 44.02	+ 0.08
	39	α Piscis Australis .	E.	.	55.0	58.0	59.6	6.5	9.0	11.4	18.5	20.3	23.2	50 9.06	− 0.56	+15.01	+15.15	22 50 23.65	+ 0.13
	40	α Pegasi, (R.) . .	E.	.	46.3	49.0	50.5	56.7	58.8	1.0	7.3	9.0	11.5	57 58.90	− 0.18	. .	+15.15	22 58 13.87	+ 0.07
	41	ο Cephei	E.	.	. .	. .	51.3	56.4	2.1	7.3	13.4	. .	. .	13 2.10	− 0.11	. .	+15.15	23 13 17.14	− 0.34
	42	λ Draconis, S. P. .	E.	.	52.7	45.0	41.0	28.5	16.7	4.9	53.0	48.4	40.9	23 16.79	− 0.81	. .	+15.16	11 23 31.14	+ 0.48
	43	γ Cephei, (R.) . .	E.	.	. .	. .	29.5	39.2	48.2	56.8	6.2	. .	. .	33 47.98	+ 1.01	. .	+15.16	23 34 4.15	+ 0.05
	44	α Andromedæ . .	E.	.	8.4	11.5	13.2	20.0	22.5	24.7	31.8	33.5	36.3	1 22.43	− 0.26	+15.13	+15.17	0 1 37.34	+ 0.04
	45	γ Pegasi	E.	.	2.0	4.7	6.1	12.4	14.6	16.8	23.1	24.7	27.2	6 14.62	− 0.33	+15.10	+15.17	0 6 29.46	+ 0.05
	46	Jupiter I, S. . .	E.	.	41.4	43.9	45.4	. .	. .	. .	1.8	3.4	6.0	21 53.65	− 0.39	. .	+15.18	0 22 8.44	. .
	47	Jupiter II, N. . .	E.	.	. .	. .	52.6	54.6	56.7	58.6	0.9	. .	. .	21 56.68	− 0.39	. .	+15.18	0 22 11.47	. .
	48	κ Draconis, S. P. .	E.	.	10.7	1.8	57.6	39.1	32.8	27.0	8.1	3.3	56.0	27 32.93	− 0.82	. .	+15.18	12 27 47.29	+ 0.10
	49	21 Cassiopeæ . . .	E.	.	5.7	15.1	20.7	43.5	51.1	58.5	21.1	27.0	36.1	36 50.99	+ 0.31	. .	+15.18	0 37 6.48	− 0.14

3. R. A. observed over set C, D_1, D_3, VI, and VII.
6.13.14.46.47. Wire B used.
9.16.28. R. A. over set E.
33. Seems five revs. wrong in N. P. D.
43. Seems one rev. wrong.
49. Bisections at sets B and D.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	11 44	6.0	3.7	0.5	2.4	26	156	150	. .	101	012	13.3	11 47 21.8	. .	+ 12.7	62 53 55.7	− 2.9
2	307 46	4.7	2.7	29.9	2.6	22	790	864	871	860	. .	13.3	307 50 11.9	737	− 1 18.0	358 55 15.1	− 1.2
3	62 44	4.1	1.3	27.9	0.2	26	. .	. .	. .	894	900	13.3	62 47 10.4	. .	+ 1 57.5	113 55 29.1	− 1.8
4	19 2	7.1	3.7	0.3	2.8	28	. .	. .	640	. .	. .	13.3	19 4 42.4	733	+ 21.0	70 11 24.6	+10.9
5	23 30	8.2	3.7	0.0	1.9	20	. .	. .	. .	490	390	13.0	23 34 46.6	. .	+ 26.1	74 41 33.9	− 0.6
6	37 10	9.7	4.8	3.8	4.5	28	502	560	. .	950	110	13.0	37 10 8.6	680	+ 45.4	88 17 15.2	− 5.4
7	359 48	8.4	5.0	3.4	4.2	23	. .	. .	. .	540	650	13.0	359 51 56.7	. .	− 0.1	50 58 17.8	+ 0.6
8	307 28	4.0	1.5	0.3	0.0	25	600	480	525	565	. .	13.0	307 31 31.6	640	− 1 17.1	358 36 35.7	− 2.7
9	49 18	12.1	7.3	5.0	4.6	27	. .	. .	. .	. .	900	13.0	49 20 48.3	. .	+ 1 8.9	100 28 18.4	+ 0.1
10	348 52	7.3	3.4	2.8	2.7	25	300	100	. .	035	090	13.0	348 55 35.9	. .	− 11.6	40 1 45.5	− 0.1
11	19 46	6.2	3.5	1.2	1.7	24	840	870	. .	805	750	13.0	19 49 41.1	. .	+ 21.3	70 56 23.6	− 2.7
12	18 58	5.3	1.4	29.3	0.4	27	240	000	. .	930	870	13.0	19 1 9.1	. .	+ 20.3	70 7 50.6	+ 3.2
13	53 54	4.3	0.7	27.3	29.5	24	750	850	. .	. .	. .	13.0	53 55 16.9	. .	+ 1 20.2	105 2 58.3	− 7.2
14	54 26	6.3	2.4	29.5	1.2	23	. .	. .	. .	050	. .	13.0	54 27 37.8	606	+ 1 21.6	105 35 20.6	− 7.2
15	11 40	8.5	4.5	2.0	3.0	24	780	625	. .	590	655	13.0	11 43 42.2	. .	+ 12.1	62 50 15.5	0.0
16	31 58	7.5	3.5	0.0	1.4	21	. .	. .	. .	. .	780	13.0	32 2 26.2	. .	+ 36.4	83 9 23.8	+ 4.4
17	64 56	9.3	5.8	2.5	3.6	24	770	. .	. .	630	570	13.0	64 59 40.7	. .	+ 2 3.7	116 8 5.6	− 0.2
18	24 18	12.2	7.0	5.2	5.6	29	720	. .	. .	585	385	13.0	24 20 23.9	. .	+ 26.2	75 27 11.2	− 0.4
19	26 10	9.1	5.0	1.0	2.8	25	805	740	. .	800	600	13.0	26 13 25.7	. .	+ 28.5	77 20 15.4	+ 0.6
20	11 2	3.0	28.2	27.9	27.1	27	170	160	. .	085	010	13.0	11 5 10.3	. .	+ 11.3	62 11 42.8	− 1.6
21	347 20	3.8	29.2	28.5	29.0	26	990	850	. .	050	960	13.0	347 23 12.1	. .	− 12.9	38 29 20.4	+ 1.3
22	309 56	3 8	29.5	29.4	1.2	25	722	685	687	650	650	12.5	309 59 29.7	577	− 1 9.5	1 4 41.4	− 2.3
23	218 20	4.5	4.4	1.3	0.1	20	. .	. .	. .	105	085	12.5	218 24 52.7	. .	+ 46.4	12 40 42.1	− 1.1
24	27 58	7.0	3.2	29.7	2.4	26	. .	. .	140	. .	. .	12.5	28 1 20.3	. .	+ 31.2	79 8 12.7	− 1.9
25	185 52	7.1	6.5	2.8	2.5	25	948	942	. .	794	828	12.5	185 55 22.2	. .	+ 6.1	45 10 53.0	− 0.2
26	48 18	8.8	6.5	1.7	4.9	27	. .	905	. .	800	. .	12.5	48 20 51.6	597	+ 1 5.9	99 28 18.7	− 1.0
27	9 8	7.8	4.2	1.5	3.9	24	. .	410	. .	288	. .	12.5	9 11 46.6	. .	+ 9.5	60 18 17.3	− 2.0
28	19 36	3.4	28.7	28.3	0.5	29	. .	. .	. .	. .	840	12.5	19 38 25.5	. .	+ 21.0	70 45 7.7	+ 3.1
29	289 16	9.5	5.4	3.6	4.5	21	. .	790	. .	902	. .	12.5	289 20 23.1	. .	− 2 46.0	340 24 58.3	+ 0.5
30	47 16	12.1	9.5	4.5	2.4	27	265	270	. .	250	140	12.5	47 18 59.5	. .	+ 1 3.8	98 26 24.5	+ 0.7
31	211 44	5.0	4.8	1.3	0.5	21	. .	. .	. .	165	. .	12.5	211 48 34.7	. .	+ 36.5	19 17 10.0	− 2.3
32	214 8	6.1	7.2	3.8	2.2	27	. .	440	430	450	. .	12.5	214 10 58.6	. .	+ 40.0	16 54 42.6	− 3.0
33	39 46	9.0	5.5	1.5	5.0	28	. .	145	. .	062	. .	12.5	39 48 48.0	. .	+ 49.1	90 55 58.3	−77.5
34	284 40	29.6	28.1	27.0	26.5	28	. .	690	630	740	. .	12.5	284 42 46.5	. .	− 3 40.4	335 45 27.3	+ 1.5
35	141 46	10.2	8.2	4.7	3.7	23	440	460	. .	410	370	12.5	141 49 58.2	. .	− 46.4	89 17 9.4	− 0.3
36	39 36	7.2	3.7	29.8	3.3	22	300	330	. .	. .	. .	12.5	39 40 19.4	. .	+ 48.9	90 47 29.5	0.0
37	151 12	10.2	7.0	3.5	3.9	24	025	000	. .	860	780	12.5	151 15 51.1	. .	− 32.3	79 51 2.4	+ 0.8
38	47 6	9.4	6.9	2.7	4.7	26	740	790	. .	. .	. .	12.5	47 9 8.9	. .	+ 1 3.6	98 16 33.7	− 1.9
39	69 6	9.8	6.2	0.3	4.3	22	550	460	. .	575	580	12.5	69 10 12.9	. .	+ 2 34.1	120 19 8.2	+ 2.4
40	155 34	6.0	3.8	29.8	29.5	27	. .	. .	. .	. .	770	12.5	155 36 54.7	. .	− 26.8	75 29 53.3	+ 2.4
41	331 26	7.5	4.5	3.0	3.8	22	. .	235	335	315	. .	12.5	331 30 17.4	. .	− 32.1	22 36 6.5	− 1.7
42	288 56	7.4	6.4	4.2	5.0	24	. .	860	940	850	. .	12.5	288 59 36.7	. .	− 2 50.0	340 3 7.9	+ 0.7
43	217 56	8.5	8.5	4.0	3.0	23	. .	005	080	960	. .	12.5	218 0 5.1	. .	+ 46.2	13 5 29.9	−16.4
44	10 28	9.3	6.1	1.2	4.6	25	. .	990	. .	860	. .	12.5	10 31 21.5	. .	+ 11.0	61 37 53.7	− 0.1
45	24 22	4.6	2.5	27.3	29.5	24	. .	150	. .	155	. .	12.5	24 25 52.9	. .	+ 26.9	75 32 41.0	+ 0.7
46	38 10	12.2	9.0	4.8	7.0	20	650	870	. .	. .	. .	12.5	38 12 10.0	. .	+ 46.6	89 19 17.8	− 1.3
47	38 10	12.2	9.0	4.8	7.0	23	. .	. .	. .	565	460	12.5	38 11 24.3	. .	+ 46.6	89 18 32.1	− 1 3
48																	
49	324 34	29.2	26.3	23.7	23.3	23	. .	910	070	050	. .	12.5	324 38 0.5	. .	− 42.1	15 43 39.6	− 1.6

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
22	30.025	47.5	62.0

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Nov. 3	1	Polaris, S. P. . .	T.	.	. .	. .	40.0	16.0	52.0	29.0	3.0	. .	. .	11 51.68	−11.55	. .	+15.30	1 11 55.43	+ 0.15
	2	α Bootis	T.	.	10.5	13.2	14.8	21.3	23.4	25.7	32.1	33.7	36.5	9 23.47	− 0.30	+15.42	+15.32	14 9 38.49	− 0.11
4	3	Sun I, N. . . .	T.	.	57.4	0.1	1.5	8.0	10.2	12.1	18.6	20.2	22.7	39 10.09	− 0.51	. .	+15.33	14 39 24.91	. .
	4	Sun II, S. . . .	T.	.	11.8	14.3	16.2	22.6	24.7	26.8	33.3	34.7	37.4	41 24.64	− 0.51	. .	+15.33	14 41 39.46	. .
	5	ζ Ophiuchi . . .	T.	.	. .	. .	37.4	39.5	41.5	43.6	47.7	49.0	51.7	29 39.39	− 0.47	+15.39	+15.36	16 29 54.28	− 0.03
	6	α Herculis . . .	T.	.	10.5	13.1	14.6	21.1	23.2	25.2	31.5	33.0	35.8	8 23.11	− 0.33	+15.44	+15.38	17 8 38.16	− 0.06
	7	α Ophiuchi . . .	T.	.	. .	29.7	31.7	34.0	36.0	38.1	42.3	43.9	46.5	28 33.93	− 0.34	+15.46	+15.39	17 28 48.98	− 0.06
	8	μ Herculis . . .	T.	.	48.7	51.6	53.4	0.3	2.8	5.0	12.0	13.6	16.6	41 2.67	− 0.25	+15.43	+15.39	17 41 17.81	− 0.04
	9	λ Ursæ Minoris . .	T.	.	. .	. .	. .	. .	. .	36.0	15.0	. .	51.0	55 1.00	+14.01	. .	+15.44	19 55 30.45	− 1.58
	10	11 Cephei, (R.) . .	T.	.	7.4	15.2	19.7	38.5	44.6	50.5	9.6	14.0	22.0	39 44.61	+ 0.83	. .	+15.47	21 40 0.91	+ 0.09
	11	79 Draconis, (R.) .	T.	.	17.6	26.3	31.2	52.8	59.9	6.6	28.2	33.0	41.8	50 59.71	+ 0.98	. .	+15.48	21 51 16.17	− 0.07
	12	α Aquarii . . .	T.	.	35.1	37.7	39.1	45.3	47.4	49.3	55.5	57.0	59.6	58 47.33	− 0.42	+15.44	+15.48	21 59 2.39	+ 0.03
	13	θ Aquarii . . .	T.	.	26.8	29.4	30.9	37.2	39.3	41.4	47.5	49.0	51.6	9 39.23	− 0.46	+15.45	+15.48	22 9 54.25	+ 0.02
	14	π Aquarii, (R.) . .	T.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	15	η Aquarii . . .	T.	.	9.4	12.0	13.5	19.7	21.7	23.7	29.9	31.4	34.0	28 21.70	− 0.42	+15.41	+15.49	22 28 36.77	+ 0.06
	16	ζ Pegasi, (R.) . .	T.	.	27.4	30.0	31.5	37.8	39.8	41.9	48.2	49.7	52.3	34 39.84	− 0.21	. .	+15.49	22 34 55.12	+ 0.02
	17	λ Aquarii . . .	T.	.	18.7	21.3	22.7	29.0	31.0	33.0	39.3	41.0	43.5	45 31.06	− 0.46	+15.38	+15.49	22 45 46.09	+ 0.17
	18	η Virginis . . .	N.	2?	42.6	45.2	47.0	52.9	54.9	56.9	3.0	4.6	7.0	12 54.90	− 0.50	+15.69	+15.84	12 13 10.24	+ 0.14
	19	Polaris, S. P. . .	N.	3	. .	. .	45.5	23.0	. .	39.0	12.5	. .	. .	11 59.68	−16.42	. .	+15.86	1 11 59.08	+ 3.92
	20	η Bootis	N.	2	55.7	58.5	0.0	. .	9.0	. .	17.5	19.1	21.6	48 8.77	− 0.36	+15.84	+15.88	13 48 24.29	+ 0.01
5	21	λ Ursæ Min., S, P. .	N.	5	. .	. .	. .	. .	41.0	32.5	7.5	29.0	44.0	44 54.70	+20.04	. .	+16.03	19 55 30.77	+ 0.16
	22	κ Cephei, (R.) . .	N.	4	. .	. .	. .	48.2	. .	7.0	35.0	42.0	53.2	12 57.69	+ 1.82	. .	+16.04	20 13 15.55	− 0.04
	23	ζ Cygni	N.	4	51.0	54.0	55.7	2.8	5.1	7.5	14.5	16.3	19.2	7 5.12	− 0.26	+16.01	+16.06	21 7 20.92	+ 0.04
	24	1 Draconis, S. P. .	N.	3	18.3	0.0	49.6	20.5	5.6	51.3	37.2	. .	25.0	17 51.46	− 3.25	. .	+16.07	9 18 4.28	− 0.14
	25	d Ursæ Maj., S. P. .	N.	3	9.9	57.5	45.0	39.0	32.8	27.1	20.9	8.6	57.0	22 33.09	− 1.56	. .	+16.07	9 22 47.60	+ 0.15
	26	11 Cephei, (R.) . .	N.	.	. .	31.2	37.5	43.7	50.0	56.0	8.3	13.1	20.7	39 43.70	+ 1.08	. .	+16.07	21 40 0.85	− 0.13
	27	μ Capricorni . .	N.	4	39.9	42.6	44.0	50.3	52.5	54.6	1.0	2.5	5.0	45 52.49	− 0.62	+16.06	+16.08	21 46 7.95	− 0.03
	28	79 Draconis, (R.) .	N.	4	. .	. .	. .	. .	5.8	12.9	26.7	32.0	40.7	51 58.74	+ 1.26	. .	+16.08	21 52 16.08	− 0.09
	29	α Aquarii . . .	N.	4	34.5	37.1	38.5	44.7	46.8	48.8	55.0	56.4	59.0	58 46.76	− 0.51	+16.08	+16.08	21 59 2.33	− 0.01
	30	226 Cephei	N.	5	. .	. .	. .	. .	. .	. .	16.7	22.7	32.6	30 43.80	+ 1.06	. .	+16.10	22 31 0.96	− 0.07
	31	ζ Pegasi, (R.) . .	N.	4	26.9	29.5	31.0	37.2	39.4	41.4	47.7	49.3	51.8	34 39.36	− 0.29	. .	+16.10	22 34 55.17	+ 0.09
	32	α Piscis Australis .	N.	3	54.0	57.0	58.7	5.9	8.2	10.5	17.7	19.4	22.3	50 8.19	− 0.78	+16.06	+16.11	22 50 23.52	+ 0.04
	33	Anonymous . .	N.	1.3	. .	. .	30.8	32.7	36.6	38.4	40.7	52.9	5.3	1 28.58	− 0.50	. .	+16.11	23 1 44.19	+ 3.64
	34	ι Piscium, (R.) . .	N.	4	44.3	46.8	48.3	54.5	56.5	58.5	4.8	6.3	8.8	32 56.53	− 0.33	. .	+16.12	23 33 12.32	− 0.12
	35	α Andromedæ, (R.) .	N.	3	7.4	10.2	11.9	18.9	21.3	23.5	30.7	32.3	34.9	1 21.23	− 0.10	. .	+16.13	0 1 37.26	− 0.02
	36	Jupiter I, S. . .	N.	3	. .	. .	13.0	15.0	17.0	19.0	21.1	. .	. .	21 17.02	− 0.50	. .	+16.14	0 21 32.66	. .
	37	Jupiter II, N. . .	N.	3	8.0	10.5	12.0	. .	. .	. .	28.4	30.0	32.5	21 20.23	− 0.50	. .	+16.14	0 21 35.87	. .
	38	κ Draconis, S. P. .	N.	2	. .	. .	44.8	38.3	32.3	26.4	20.3	. .	. .	27 32.42	− 1.60	. .	+16.14	12 27 46.96	− 0.32
	39	21 Cassiopeæ . . .	N.	3	5.1	13.9	19.3	42.4	49.8	57.3	20.2	25.5	35.0	36 49.83	+ 0.92	. .	+16.15	0 37 6.90	+ 0.34
	40	32^1 Camelopard., S. P.	N.	2	35.4	10.8	56.0	55.9	35.7	16.6	16.7	1.9	36.5	47 36.17	− 4.27	. .	+16.15	12 47 48.05	− 8.35
	41	32^2 Camelopard., S. P.	N.	2	43.8	19.0	4.2	4.8	43.5	24.3	23.8	8.7	44.1	47 44.02	− 4.27	. .	+16.15	12 47 55.90	− 0.50
	42	Neptune . . .	N.	2	58.0	0.5	2.0	8.0	10.2	12.2	18.3	19.9	22.3	58 10.16	− 0.47	. .	+16.16	0 58 25.85	. .
	43	ε Piscium . . .	N.	3	9.4	12.0	13.4	19.6	21.7	23.6	29.8	31.4	33.8	1 21.63	− 0.47	. .	+16.16	1 1 37.32	+ 3.17
	44	Polaris	N.	2	. .	. .	36.0	59.0	22.0	46.0	11.0	. .	. .	11 23.12	+15.50	. .	+16.16	1 11 54.78	− 0.05
	45	Uranus I, C. . .	N.	2	. .	. .	. .	. .	. .	. .	16.1	18.0	20.7	15 7.42	− 0.32	. .	+16.31	7 15 23.41	. .
	46	Uranus II . . .	N.	.	. .	. .	. .	34.0	37.4	38.6	39.7	40.8	47.3	15 7.63	− 0.32	. .	+16.31	7 15 23.62	. .
	47	φ Geminorum . .	N.	1	57.4	0.6	2.2	9.1	11.3	13.4	20.5	22.3	25.3	45 11.34	− 0.28	+16.53	+16.33	7 45 27.38	− 0.24
	48	λ Ursæ Min., S. P. .	N.	3	. .	. .	6.0	14.0	28.0	42.0	. .	. .	. .	55 28.10	−20.96	. .	+16.33	19 55 23.47	− 6.41
	49	Moon II, S. . .	N.	3	55.2	58.0	59.5	6.1	8.4	10.5	17.0	18.7	21.6	5 8.33	− 0.37	. .	+16.34	8 5 24.30	−70.68
	50	A Præsepe . . .	N.	3	34.7	37.4	39.0	45.7	47.7	49.8	56.4	58.0	0.8	29 47.72	− 0.35	. .	+16.35	8 30 3.72	+ 4.71

9.11.22.24.25.26.28.30.39.40.41. Bisections at sets B and D.
33. R. A. over wires C_4, C_5, D, VI, and VII.
46. R. A. over wires E and VII.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	307 28	8.7	7.5	6.0	7.2	25	074	120	082	962	022	11.2	307 31 31.2	. .	− 1 15.8	358 36 36.6	− 2.2
2	18 58	7.6	3.8	1.6	4.2	27	. .	042	. .	830	. .	11.2	19 1 5.7	. .	+ 19.9	70 7 46.8	− 0.8
3	54 10	10 7.8	4.9	0.7	2.8	24	650	796	. .	. .	. .	11.2	54 13 41.0	. .	+ 1 20.0	105 21 22.2	− 7.2
4	54 42	8.4	5.5	1.9	4.2	23	. .	. .	. .	310	451	11.2	54 45 57.7	527	+ 1 21.6	105 53 40.5	− 7.3
5	49 6	9.7	5.6	1.4	3.1	22	. .	302	. .	392	. .	11.2	49 10 15.0	474	+ 1 5.9	100 17 42.1	− 1.0
6	24 18	8.6	4.8	1.8	4.0	29	. .	. .	. .	672	620	11.2	24 20 22.7	462	+ 25.7	75 27 9.6	− 2.1
7	26 10	10.6	6.8	1.2	5.0	25	. .	. .	. .	380	570	11.2	26 13 25.4	459	+ 28.0	77 20 14.6	− 0.4
8	11 2	9.6	4.1	0.9	4.3	26	. .	675	. .	613	. .	11.2	11 5 9.8	. .	+ 11.2	62 11 42.2	− 2.4
9	309 56	9.0	4.7	3.0	6.7	24	. .	. .	. .	402	470	11.2	309 59 43.0	509	− 1 8.4	1 4 55.8	+12.1
10	211 44	3.3	3.5	28.8	29.7	21	160	163	. .	042	. .	11.2	211 48 37.5	538	+ 35.9	19 17 7.8	− 4.4
11	214 8	7.6	8.5	4.0	4.4	27	. .	328	198	170	. .	11.2	214 10 59.4	. .	+ 39.3	16 54 42.5	− 2.9
12	39 46	10.3	7.0	2.0	5.8	22	. .	752	. .	802	. .	11.2	39 50 7.2	540	+ 48.3	90 57 15.7	− 0.1
13	47 16	11.0	7.7	2.5	5.7	28	. .	450	. .	292	. .	11.2	47 18 41.2	. .	+ 1 2.7	98 26 5.1	+ 0.2
14	141 46	8.6	6.6	1.6	3.6	23	. .	. .	. .	. .	401	11.2	141 49 47.9	. .	− 45.5	89 17 8.8	− 0.9
15	39 36	8.6	6.6	29.6	3.5	21	. .	950	. .	040	. .	11.2	39 40 21.2	. .	+ 48.0	90 47 30.4	+ 0.8
16	151 12	4.5	3.3	29.0	29.5	24	. .	101	. .	111	. .	11.2	151 15 51.5	543	− 31.8	79 51 1.5	− 0.2
17	47 6	10.8	8.3	3.8	6.0	26	. .	490	. .	390	. .	11.2	47 9 10.2	. .	+ 1 2.5	98 16 33.9	− 0.4
18																	
19	307 28	6.2	4.4	2.0	4.0	25	365	357	. .	345	364	11.4	307 31 29.8	498	− 1 14.5	358 36 36.5	− 2.5
20	19 46	7.5	5.2	2.2	3.3	24	. .	. .	. .	432	. .	11.4	19 49 43.1	487	+ 20.4	70 56 24.7	− 2.1
21	309 56	10 7.8	4.8	2.1	4.1	25	. .	. .	. .	234	238	11.4	309 59 31.6	550	− 1 9.1	1 4 43.7	0.0
22	218 22	7.4	6.9	2.3	1.6	27	. .	. .	654	630	621	11.4	218 24 54.3	. .	+ 46.1	12 40 40.8	− 2.5
23	9 8	8.8	4.8	0.9	3.5	24	. .	. .	171	. .	. .	11.4	9 11 47.9	578	+ 9.5	60 18 18.6	− 0.8
24	300 46	8.2	5.2	1.7	3.8	27	061	118	105	. .	031	11.4	300 49 2.9	. .	− 1 37.7	351 53 46.4	− 2.0
25	289 16	8.3	6.5	3.3	4.8	21	830	802	850	834	800	11.4	289 20 22.4	. .	− 2 45.1	340 23 58.5	+ 0.9
26	211 46	5.2	5.8	1.2	0.8	29	. .	. .	030	998	946	11.4	211 48 35.1	. .	+ 36.2	19 17 9.9	− 2.2
27	52 58	7.6	4.5	29.3	1.4	22	005	930	. .	804	744	11.4	53 2 28.0	. .	+ 1 17.6	104 10 6.8	+ 3.7
28	214 8	6.2	7.1	2.2	1.6	27	. .	. .	445	398	362	11.4	214 10 58.3	584	+ 39.7	16 54 43.2	− 2.1
29	39 46	8.6	5.7	0.6	2.5	23	090	080	. .	975	910	11.4	39 50 5.7	. .	+ 48.8	90 57 15.7	− 0.2
30	323 18	7.7	5.0	1.6	3.5	27	. .	. .	. .	235	220	11.5	323 21 1.2	. .	− 43.7	14 26 38.7	− 1.9
31	151 12	8.8	7.1	2.4	2.4	23	. .	980	. .	847	. .	11.5	151 15 51.2	599	− 32.2	79 50 2.2	+ 0.5
32	69 6	11.4	9.1	2.5	5.6	22	. .	. .	372	. .	. .	11.5	69 10 12.8	. .	+ 2 33.3	120 19 7.3	+ 1.2
33	38 18	8.6	5.7	0.8	2.7	24	. .	. .	. .	185	068	11.5	38 21 47.7	600	+ 46.5	89 28 55.4	−19.3
34	145 58	9.0	7.9	1.7	2.0	23	350	300	. .	225	200	11.5	146 2 1.1	612	− 39.7	85 4 59.8	− 1.0
35	169 26	9.3	7.6	2.7	1.7	28	. .	. .	711	. .	. .	11.5	169 28 37.7	. .	− 10.9	61 37 54.4	+ 0.8
36	38 12	9.5	6.4	1.5	3.5	25	428	415	. .	. .	. .	11.5	38 15 29.2	. .	+ 46.5	89 22 36.9	− 1.3
37	38 12	9.5	6.4	1.5	3.5	28	. .	. .	. .	341	230	11.5	38 14 43.3	. .	+ 46.5	89 21 51.0	− 1.3
38	389 24	3.9	2.6	29.1	0.8	27	. .	. .	388	. .	. .	11.5	289 27 1.7	620	− 2 45.5	340 30 37.4	+ 1.4
39	324 34	6.9	4.6	1.4	3.0	23	475	602	509	550	529	11.5	324 37 58.5	. .	− 41.9	15 43 37.8	− 2.8
40	303 0	7.9	5.4	2.0	3.9	27	532	. .	. .	. .	510	11.5	303 2 55.6	629	− 1 30.6	354 7 46.2	+18.3
41	303 0	7.9	5.4	2.0	3.9	28	745	. .	. .	. .	750	11.5	303 2 37.3	. .	− 1 30.6	354 7 27.9	0.0
42	34 24	8.0	5.1	29.4	2.3	26	. .	965	. .	850	. .	11.5	34 27 6.9	. .	+ 40.6	85 34 8.7	− 0.2
43	33 52	10.4	7.6	1.5	4.1	24	. .	709	. .	626	. .	11.5	33 55 39.0	. .	+ 39.8	85 2 40.0	−22.2
44	310 14	7.5	6.0	1.6	3.8	22	881	866	874	830	856	11.5	310 18 8.0	625	− 1 9.6	1 23 19.6	− 1.0
45	16 6	11.6	8.2	3.5	5.3	26	. .	. .	. .	947	. .	11.9	16 9 2.6	680	+ 17.3	67 15 41.1	− 0.1
46																	
47	11 44	1.1	28.6	24.7	25.8	26	. .	. .	410	. .	. .	11.9	11 47 21.1	692	+ 12.5	62 53 54.8	− 4.1
48	307 46	5.0	3.0	0.0	1.6	22	. .	. .	875	. .	. .	11.9	307 50 10.3	. .	− 1 17.1	358 55 14.4	− 1.8
49	21 2	10.3	7.9	2.6	4.5	21	254	. .	930	. .	678	11.9	21 6 35.8	688	+ 23.2	72 13 20.2	
50	18 38	9.0	6.0	1.8	3.7	23	. .	160	. .	910	. .	11.9	18 42 5.2	. .	+ 20.3	69 48 46.7	+10.1

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
4	30.007	53.5	62.0
23	30.124	50.0	64.6

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
49	− 21 1.4	− 16 5.3

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan's Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Nov. 5	1	G Præsepe . . .	N.	4	3.8	6.5	8.0	14.7	16.8	18.9	25.5	27.2	30.2	32 16.84	− 0.35	. .	+16.35	8 32 32.84	+ 4.75
	2	ε Hydræ	N.	3	21.0	23.4	24.8	31.0	33.3	35.2	41.3	43.0	45.5	39 33.17	− 0.46	+16.43	+16.35	8 39 49.06	− 0.05
	3	ι Ursæ Majoris, (R.)	N.	3	40.6	42.8	. .	52.1	55.3	58.4	. .	7.7	9.9	49 55.26	+ 0.20	. .	+16.35	8 50 11.81	+ 0.09
	4	κ Cancri	N.	3	9.2	11.9	13.3	19.5	21.7	23.8	30.0	31.6	34.2	0 21.69	− 0.42	+16.40	+16.36	9 0 37.63	− 0.04
	5	1 Draconis . . .	N.	.	. .	. .	18.3	32.0	46.8	0.3	16.0	. .	. .	17 46.68	+ 2.28	. .	+16.36	9 18 5.32	+ 0.81
	6	α Hydræ, (R.) . .	N.	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
6	7	λ Ursæ Minoris .	N.	5	. .	. .	23.0	10.5	0.5	44.5	37.0	. .	. .	54 59.50	+12.29	. .	+16.71	19 55 28.50	− 0.67
	8	α^2 Capricorni . .	N.	5	16.5	19.1	20.6	27.0	29.2	31.2	37.5	39.1	41.7	10 29.10	− 0.49	+16.71	+16.72	20 10 45.33	+ 0.01
	9	π Capricorni . .	N.	4	18.4	21.0	22.5	29.2	31.4	33.4	40.0	41.5	44.1	19 31.28	− 0.53	+16.72	+16.72	20 19 47.47	0.00
	10	ε Delphini . . .	N.	5	27.1	29.7	31.1	37.5	39.5	41.6	47.9	49.5	52.0	26 39.54	− 0.36	+16.74	+16.73	20 26 55.91	0.00
	11	ζ Cygni	E.	.	50.3	53.3	54.8	2.0	4.3	6.7	13.8	15.7	18.6	7 4.39	− 0.24	+16.70	+16.77	21 7 20.92	+ 0.06
	12	1 Pegasi	E.	.	31.4	34.0	35.7	42.2	44.4	46.5	53.2	54.7	57.4	15 44.39	− 0.31	+16.70	+16.77	21 16 0.85	− 0.01
	13	24 Ursæ Maj., S. P. .	E.	.	8.7	1.0	56.4	38.1	32.3	26.0	8.0	2.9	55.5	22 32.10	− 1.00	. .	+16.77	9 22 47.87	+ 0.36
	14	ξ Aquarii . . .	E.	.	16.7	19.4	21.0	27.2	29.2	31.1	37.4	39.0	41.6	30 29.18	− 0.46	+16.66	+16.78	21 30 45.50	+ 0.12
	15	11 Cephei, (R.) . .	E,	.	6.0	14.2	18.0	30.6	36.8	43.5	. .	. .	. .	39 43.27	+ 0.66	. .	+16.78	21 40 0.71	− 0.24
	16	79 Draconis, (R.) . .	E.	.	16.1	24.9	30.0	44.6	. .	12.6	26.6	31.3	40.6	50 58.34	+ 0.77	. .	+16.79	21 51 15.90	− 0.20
	17	α Aquarii . . .	E.	.	34.0	36.3	37.8	44.0	46.0	48.1	54.2	55.7	58.3	58 46.04	− 0.42	+16.70	+16.79	21 59 2.41	+ 0.08
	18	32 Ursæ Maj., S. P. .	E.	.	39.8	33.5	30.0	14.7	9.8	5.0	50.2	46.4	40.1	8 9.94	− 0.86	. .	+16.79	10 8 25.87	+ 0.01
	19	π Aquarii, (R.) . .	E.	.	5.7	8.5	10.0	16.0	18.0	19.8	26.0	27.6	30.2	18 17.98	− 0.32	. .	+16.80	22 18 34.46	+ 0.10
	20	9 Draconis, S. P. .	E.	.	23.8	13.0	7.0	40.4	31.8	23.4	56.8	50.1	40.0	23 31.81	− 1.31	. .	+16.80	10 23 47.30	− 0.15
	21	η Aquarii . . .	E.	.	8.1	10.7	12.1	18.3	20.4	22.4	28.5	30.0	32.5	28 20.33	− 0.42	+16.75	+16.80	22 28 36.71	+ 0.05
	22	ζ Pegasi, (R.) . .	E.	.	26.2	28.7	30.4	36.6	38.7	40.7	47.0	48.2	51.0	34 38.61	− 0.25	. .	+16.80	22 34 55.16	+ 0.09
	23	λ Aquarii . . .	E.	.	17.4	20.0	21.5	27.6	29.6	31.7	38.0	39.5	42.0	45 29.70	− 0.46	+16.72	+16.81	22 45 46.05	+ 0.15
	24	α Piscis Australis .	E.	.	53.3	56.2	57.9	4.9	7.4	9.6	16.9	18.5	21.5	50 7.36	− 0.62	+16.72	+16.81	22 50 23.55	+ 0.08
	25	α Pegasi	E.	.	44.4	47.4	48.8	55.0	57.4	59.5	5.9	7.5	10.0	57 57.32	− 0.33	+16.78	+16.81	22 58 13.80	+ 0.04
	26	Anonymous . .	E.	.	15.1	.7.6	19.3	25.6	27.7	29.5	35.5	37.3	39.6	1 27.47	− 0.41	. .	+16.81	23 1 43.87	+ 3.65
	27	ο Cephei	E.	.	28.2	35.5	38.9	55.0	1.0	5.7	21.8	25.6	32.3	13 0.45	+ 0.23	. .	+16.81	23 13 17.49	+ 0.13
	28	λ Draconis, S. P. .	E.	.	51.0	43.7	39.8	20.8	15.2	9.8	51.4	46.5	39.2	23 15.27	− 0.99	. .	+16.82	11 23 30.96	+ 0.11
	29	ι Piscium . . .	E.	.	44.0	46.4	47.8	53.8	56.1	58.0	4.2	5.7	8.2	32 56.02	− 0.39	+16.78	+16.82	23 33 12.45	+ 0.02
	30	α Andromedæ . .	E.	.	6.8	9.7	11.5	18.6	20.8	23.0	30.1	31.7	34.7	1 20.77	− 0.25	+16.75	+16.83	0 1 37.35	+ 0.08
	31	γ Pegasi	E.	.	0.5	3.2	4.4	11.0	13.0	15.1	21.2	23.0	25.6	6 13.00	− 0.33	+16.70	+16.83	0 6 29.50	+ 0.11
	32	Jupiter I, S. . .	E.	.	. .	. .	. .	. .	59.5	1.3	3.3	. .	. .	20 59.34	− 0.41	. .	+16.83	0 21 15.76	. .
	33	Jupiter II, N. . .	E.	. .	. .	. .	. .	. .	. .	. .	10.6	12.1	14.8	21 2.47	− 0.41	. .	+16.83	0 21 18.89	. .
	34	21 Cassiopeæ . . .	E.	.	4.4	13.5	19.0	41.9	49.2	56.8	19.7	25.3	34.8	36 49.40	+ 0.50	. .	+16.84	0 37 6.76	− 0.27
	35	Anonymous . .	E.	.	27.1	29.9	31.4	35.2	37.4	39.5	41.6	43.5	. .	44 39.48	− 0.38	. .	+16.84	0 44 55.94	+ 3.20
	36	Neptune . . .	E.	.	51.8	54.6	55.9	2.2	4.1	6.1	12.4	13.8	16.5	58 4.16	− 0.39	. .	+16.85	0 58 20.62	. .
	37	ε Piscium . . .	E.	.	8.7	11.2	12.6	19.0	21.0	23.0	29.1	30.6	33.1	1 20.92	− 0.39	. .	+16.85	1 1 37.38	+ 3.17
	38	Polaris	E.	.	. .	. .	46.0	9.0	30.5	51.0	20.5	. .	. .	11 31.82	+ 9.50	. .	+16.85	1 11 58.17	+ 3.73
	39	δ Canis Majoris .	E.	.	. .	. .	. .	. .	. .	14.6	18.0	19.0	20.3	2 47.35	− 0.58	+17.05	+16.97	7 3 3.74	− 0.10
	40	δ Geminorum . .	E.	.	47.1	50.0	51.5	58.2	0.3	2.4	9.3	11.0	13.3	12 0.34	− 0.29	+17.04	+16.97	7 12 17.02	− 0.10
	41	Uranus I, (center.)	E.	.	50.0	52.7	54.2	. .	. .	. .	11.6	13.5	16.3	15 3.05	− 0.29	. .	+16.97	7 15 19.73	. .
	42	Uranus II. . . .	E.	.	. .	. .	59.4	1.4	3.5	5.7	7.9	. .	. .	15 3.58	− 0.29	. .	+16.97	7 15 20.26	. .
	43	α^2 Geminorum . .	E.	.	42.2	45.1	46.9	52.0	. .	1.6	6.4	8.0	11.0	25 56.65	− 0.22	+16.94	+16.98	7 26 13.30	+ 0.24
	44	α Canis Minoris . .	E.	.	56.9	59.4	0.8	. .	. .	. .	17.4	19.0	21.4	32 9.15	− 0.38	+17.18	+16.98	7 32 25.75	− 0.22
	45	β Geminorum . .	E.	.	. .	55.4	57.7	0.0	2.2	4.8	9.2	11.2	13.8	37 0.03	− 0.25	+17.07	+16.98	7 37 16.76	− 0.09
	46	φ Geminorum . .	E.	.	57.0	59.8	1.3	8.6	10.6	12.9	19.9	21.7	24.6	45 10.71	− 0.26	+17.16	+16.99	7 45 27.44	− 0.21
	47	λ Ursæ Minoris, S. P.	E.	.	. .	. .	0.0	12.0	24.0	37.0	50.0	. .	. .	55 24.36	−12.97	. .	+16.99	19 55 28.38	− 0.10
	48	A Præsepe . . .	E.	.	33.9	36.6	38.3	44.9	47.0	49.1	55.6	57.0	0.1	29 46.94	− 0.30	. .	+17.00	8 30 3.64	+ 4.67
	49	G Præsepe . . .	E.	.	3.0	5.7	7.2	13.8	16.1	18.2	24.8	26.3	29.2	32 16.03	− 0.30	. .	+17.00	8 32 32.73	+ 4.70
	50	ε Hydræ	E.	.	20.0	22.8	24.1	30.5	32.5	34.6	40.7	42.2	44.5	39 32.43	− 0.38	+17.12	+17.00	8 39 49.05	− 0.12

5. Circle reading not recorded.
13.15.16.18.20.27.34. Bisections at wires C_8 and D_3.
15. Transit at B and C_1–C_3.
27.48. Wire B used.
35. Wire A used.
39. R. A. observed over wires E_1–E_4.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° '	r. ''	''	''	''							''	° ' ''		' ''	° ' ''	''
1	18 22	7.0	3.2	29.5	1.2	26	. .	575	. .	459	. .	11.9	18 25 14.4	690	+ 20.0	69 31 55.6	+10.3
2	31 56	11.2	7.5	2.6	5.0	26	980	926	. .	788	753	11.9	31 59 4.8	. .	+ 37.5	83 6 3.5	− 2.0
3	189 36	7.4	6.7	2.2	1.1	26	456	458	. .	368	249	11.9	189 39 14.1	. .	+ 10.2	41 26 56.9	− 0.4
4	27 38	9.7	6.2	1.8	4.3	25	675	626	. .	482	515	11.9	27 41 26.0	702	+ 31.6	78 48 18.8	− 2.0
5	. .	7.9	4.7	2.5	4.0	20	. .	. .	462	. .	. .	11.9	317 0 44.7	. .	− 56.1	8 6 9.8	− 1.9
6	132 58	3.9	1.5	26.7	27.1	23	. .	. .	. .	511	533	11.9	133 2 2.8	710	− 1 4.5	98 5 23.7	+ 2.3
7	309 56	7.7	4.9	3.7	4.3	25	. .	. .	262	. .	. .	13.0	309 59 32.2	624	− 1 10.3	1 4 43.1	− 0.7
8																	
9	57 27	12 12.3	10.5	3.2	7.4	25	. .	. .	500	. .	. .	13.0	57 30 25.3	. .	+ 1 32.7	108 38 19.2	+ 0.4
10	27 58	11.4	8.2	3.4	6.4	25	. .	. .	855	. .	. .	13.0	28 1 20.9	638	+ 31.5	79 8 13.6	− 1.2
11	9 8	13.0	8.5	5.0	7.0	23	. .	880	. .	820	. .	13.0	9 11 50.7	. .	+ 9.6	60 18 21.5	+ 2.1
12	19 36	11.7	8.2	4.7	5.8	29	680	620	. .	410	420	13.0	19 38 24.5	. .	+ 21.2	70 45 6.9	+ 2.2
13	289 16	10.5	8.9	6.6	7.5	21	. .	565	490	530	. .	13.0	289 20 25.9	. .	− 2 47.9	340 23 59.2	+ 1.8
14	47 16	12.5	8.7	4.0	5.5	27	. .	. .	. .	280	240	13.0	47 18 59.0	. .	+ 1 4.5	98 26 24.7	+ 0.6
15	211 46	5.5	6.5	2.4	1.5	29	. .	070	. .	. .	. .	13.0	211 48 35.2	. .	+ 37.0	19 16 9.0	− 3.0
16	214 8	6.9	8.0	3.8	3.5	27	. .	. .	. .	290	300	13.0	214 11 0.2	. .	+ 40.5	16 54 40.5	− 4.7
17	39 46	11.1	7.5	3.1	6.2	22	. .	700	. .	745	. .	13.0	39 50 9.1	. .	+ 49.9	90 57 20.2	+ 4.3
18	284 40	5.7	3.6	0.5	3.3	28	. .	160	210	065	. .	13.0	284 42 49.5	. .	− 3 44.5	335 45 26.2	+ 1.0
19	141 46	9.5	6.3	3.1	4.5	23	455	355	. .	. .	. .	13.0	141 50 0.9	. .	− 47.1	89 17 7.4	− 0.4
20	295 16	9.2	6.0	2.7	6.7	28	. .	340	295	390	. .	13.0	295 18 43.9	. .	− 2 6.3	346 22 58.8	+ 1.1
21	39 36	6.4	4.0	29.5	4.0	22	. .	350	. .	. .	. .	13.0	39 40 19.1	. .	+ 49.9	90 47 30.2	− 0.1
22	151 12	8.5	5.6	0.8	4.0	23	985	008	. .	. .	. .	13.0	151 15 55.4	. .	− 33.0	79 50 58.8	+ 0.5
23	47 6	11.0	8.0	5.7	7.8	26	625	585	. .	520	500	13.0	47 9 9.3	. .	+ 1 4.9	98 16 35.4	− 0.4
24	69 6	7.7	4.7	28.4	3.6	22	. .	795	. .	870	. .	13.0	69 10 10.6	. .	+ 2 37.5	120 19 9.3	+ 3.1
25	24 20	11.4	6.7	1.4	6.0	26	810	800	. .	. .	. .	13.0	24 23 7.5	. .	+ 27.4	75 29 56.1	+ 5.2
26	38 18	10.9	7.7	2.4	4.8	24	150	000	. .	002	820	13.0	38 21 50.3	720	+ 47.8	89 28 59.3	−19.3
27	331 28	4.4	2.7	0.1	2.5	22	. .	260	300	550	. .	13.0	331 32 19.1	. .	− 32.8	22 38 7.5	− 0.1
28	288 56	7.4	5.0	3.3	6.0	24	740	. .	340	. .	540	13.0	288 59 41.6	. .	− 2.54.0	340 3 8.8	+ 3.4
29	33 54	5.7	3.7	28.6	0.8	23	. .	. .	. .	642	692	13.0	33 57 58.5	. .	+ 40.7	85 5 0.4	− 0.4
30	10 28	7.5	4.4	1.7	4.0	26	. .	040	. .	910	. .	13.0	10 31 22.2	. .	+ 11.2	61 37 54.6	+ 1.1
31	24 22	9.8	5.8	0.4	5.2	23	755	900	. .	910	880	13.0	24 25 53.6	. .	+ 27.5	75 32 42.3	+ 2.1
32	38 14	8.7	4.4	0.3	3.2	26	. .	. .	. .	945	. .	13.0	38 17 6.6	. .	+ 47.8	89 24 15.6	− 1.3
33	38 14	8.7	4.4	0.3	3.2	29	. .	. .	. .	. .	970	13.0	38 16 19.9	. .	+ 47.8	89 23 28.9	− 1.3
34	324 34	8.5	5.2	3.0	5.5	23	. .	500	450	500	. .	13.0	324 37 59.0	. .	− 43.0	15 43 37.2	− 3.5
35	33 16	10.6	7.0	2.9	5.5	29	400	640	. .	730	550	13.0	33 20 58.9	. .	+ 39.9	84 28 0.0	−22.0
36	34 24	13.0	9.2	4.5	8.0	24	440	390	. .	540	500	13.0	34 27 41.1	. .	+ 41.6	85 34 43.9	− 0.2
37	33 52	6.6	4.2	27.8	1.5	25	032	955	. .	670	710	13.0	33 55 41.2	. .	+ 40.8	85 4 43.2	−22.2
38	310 14	0.6	28.5	26.0	28.0	23	185	210	130	180	260	13.0	310 18 10.8	740	− 1 11.5	1 23 20.5	+ 0.3
39	64 58	6.2	3.8	29.0	3.2	21	. .	. .	. .	265	130	14.3	65 2 36.3	. .	+ 2 9.7	116 11 7.2	+ 2.1
40	16 36	9.7	6.0	1.8	5.0	22	. .	730	. .	400	. .	14.3	16 40 14.3	. .	+ 18.2	67 46 53.7	+ 2.9
41	16 6	10.6	7.8	3.8	5.6	27	400	570	. .	300	420	14.3	16 8 58.8	. .	+ 17.6	67 15 37.6	− 0.1
42																	
43	6 40	6.0	1.8	28.5	1.2	26	. .	125	. .	370	. .	14.3	6 43 22.0	. .	+ 7.2	57 49 50.4	+ 4.6
44	33 16	4.6	1.8	28.3	29.4	25	. .	800	. .	660	. .	14.3	33 19 30.5	. .	+ 40.0	84 26 31.7	+ 2.8
45	10 30	10.1	5.8	4.2	5.1	26	. .	. .	. .	625	470	14.3	10 33 11.1	. .	+ 11.4	61 39 43.7	+ 1.0
46	11 44	2.1	28.5	25.7	27.1	26	400	420	. .	280	240	14.3	11 47 24.1	. .	+ 12.7	62 53 58.0	− 1.0
47	307 46	5.5	2.8	0.7	3.4	22	645	650	610	640	540	14.3	307 50 15.7	. .	− 1 18.4	358 55 18.5	+ 2.3
48	18 40	7.5	5.5	2.0	4.2	20	. .	900	. .	. .	. .	14.3	18 42 12.0	. .	+ 20.7	69 48 53.9	+10.0
49	18 22	11.0	8.0	2.6	6.4	26	190	220	. .	140	005	14.3	18 25 18.4	. .	+ 20.4	69 32 0.0	+10.1
50	31 56	12.8	9.5	4.5	8.5	26	688	808	. .	575	535	14.3	31 59 8.6	. .	+ 38.2	83 6 8.8	+ 2.4

No.	Barom.	External Therm.	Attached Therm.		No.	MOON'S— Parallax.	Semi-diam.
	in.	°	°	*For summary of the elements of reduction see page 3.*		' ''	' ''

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Nov. 6	1	ι Ursæ Majoris . .	E.	.	36.2	39.9	42.5	51.6	55.0	57.8	7.0	9.3	13.2	49 54.72	− 0.10	. .	+17.00	8 50 11.62	− 0.14
	2	Moon II, S. . .	E.	.	14.9	17.6	19.2	26.0	28.2	30.2	36.8	38.3	41.0	5 28.00	− 0.33	. .	+17.01	9 5 44.70	−69.97
	3	1 Draconis . . .	E.	.	. .	. .	17.9	32.8	46.4	0.6	15.6	. .	. .	17 46.66	+ 1.35	. .	+17.01	9 18 5.02	+ 0.33
	4	α Hydræ . . .	E.	.	. .	. .	. .	16.0	19.0	20.0	21.1	22.1	28.7	20 51.29	− 0.46	+17.01	+17.01	9 21 7.84	0.00
	5	Venus II, S. . .	T.	.	. .	. .	. .	. .	42.2	45.3	46.5	47.4	48.5	15 17.84	− 0.45	. .	+17.04	12 15 34.43	− 0.56
	6	12 Canum Venat. .	T.	.	18.3	21.7	23.5	31.4	34.2	36.7	44.7	46.6	50.0	49 34.12	− 0.16	+16.97	+17.05	12 49 51.01	+ 0.09
	7	Polaris, S. P. . .	T.	.	. .	. .	41.0	13.0	. .	27.0	1.0	. .	. .	11 50.82	−13.91	. .	+17.06	1 11 53.97	− 0.27
	8	η Ursæ Majoris . .	T.	.	43.4	47.1	49.5	59.2	2.3	5.5	14.9	17.5	21.5	42 2.32	− 0.02	. .	+17.07	13 42 19.37	+ 0.09
	9	α Bootis	T.	.	8.9	11.5	13.0	19.6	21.8	23.8	30.4	32.0	35.0	9 21.78	− 0.31	+17.17	+17.08	14 9 38.55	− 0.08
7	10	Sun I, S. . . .	T.	.	53.5	56.2	57.7	4.2	6.3	8.4	15.2	16.6	19.0	51 6.34	− 0.57	. .	+17.10	14 51 22.87	. .
	11	Sun II, N. . . .	T.	.	8.9	11.6	13.4	19.5	21.8	24.0	30.2	31.8	34.5	53 21.74	− 0.57	. .	+17.10	14 53 38.27	. .
	12	α Ophiuchi . . .	T.	.	19.7	22.3	23.8	30.2	32.3	34.3	40.5	42.1	44.6	28 32.20	− 0.36	+17.18	+17.15	17 28 48.99	− 0.02
	13	δ Ursæ Minoris . .	T.	.	41.0	24.0	48.0	. .	6.0	41.0	. .	. .	. .	14 6.88	+ 5.15	. .	+17.17	18 14 29.20	+ 0.84
	14	θ Aquarii . . .	T.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	15	Anonymous . .	T.	.	15.0	17.6	19.2	25.3	27.3	29.4	35.8	37.2	39.5	1 27.37	− 0.45	. .	+17.26	23 1 44.18	+ 3.66
	16	6 Piscium . . .	T.	.	49.9	52.5	53.9	0.0	2.0	4.0	10.2	11.8	14.4	21 2.08	− 0.41	+17.31	+17.27	23 21 18.94	+ 0.01
	17	ι Piscium, (R.) . .	T.	.	43.2	45.7	47.3	53.3	55.4	57.5	3.7	5.2	7.7	32 55.44	− 0.32	. .	+17.28	23 33 12.40	− 0.02
	18	α Andromedæ . .	T.	.	6.2	9.2	10.8	17.9	20.2	22.4	29.4	31.0	33.8	1 20.10	− 0.10	. .	+17.29	0 1 37.29	+ 0.03
	19	γ Pegasi	T.	.	0.0	2.5	4.0	10.5	12.5	14.5	21.0	22.5	25.2	6 12.52	− 0.35	+17.20	+17.29	0 6 29.46	+ 0.07
	20	Jupiter I, N. . .	T.	.	30.6	33.2	34.7	. .	. .	. .	51.1	52.7	55.0	20 42.88	− 0.44	. .	+17.30	0 20 59.74	. .
	21	Jupiter II, S. . .	T.	.	. .	. .	41.8	43.9	46.0	48.0	50.1	. .	. .	20 45.96	− 0.44	. .	+17.30	0 23 2.82	. .
	22	κ Draconis, S. P. .	T.	.	8.4	0.3	56.5	37.7	31.4	25.4	7.2	2.5	55.3	27 31.63	− 1.32	. .	+17.30	12 27 47.61	+ 0.24
	23	Neptune . . .	T.	.	46.4	48.8	50.5	56.5	58.5	0.5	6.7	8.2	10.8	57 58.54	− 0.42	. .	+17.31	0 58 15.43	. .
	24	e Piscium . . .	T.	.	. .	. .	. .	. .	. .	. .	28.6	30.1	32.9	1 20.46	− 0.41	. .	+17.31	1 1 37.36	+ 3.18
	25	Polaris	T.	.	. .	. .	35.0	55.0	23.0	48.0	13.0	. .	. .	11 23.12	+13.12	. .	+17.31	1 11 53.55	− 0.48
8	26	Venus I, S. . .	N.	3	. .	. .	55.4	57.4	59.5	1.5	3.6	. .	. .	23 59.48	− 0.40	. .	+18.19	12 24 17.27	. .
	27	Venus II, N. . .	N.	.	48.0	50.7	52.0	. .	. .	. .	8.4	10.0	12.5	24 0.27	− 0.40	. .	+18.19	12 24 18.06	. .
9	28	θ Aquarii . . .	N.	4	24.0	26.5	27.9	34.1	36.2	38.2	44.5	46.0	48.5	9 36.21	− 0.43	+18.37	+18.39	22 9 54.17	+ 0.01
	29	π Aquarii . . .	N.	5	4.0	6.7	8.0	14.2	16.2	18.3	24.5	26.0	28.5	18 16.27	− 0.39	+18.43	+18.39	22 18 34.27	− 0.05
	30	226 Cephei	N.	4	. .	. .	25.2	33.3	41.4	49.6	58.0	. .	. .	29 41.50	+ 0.66	. .	+18.39	22 30 0.55	− 0.27
	31	ζ Pegasi	N.	4	24.6	27.2	28.6	35.0	37.0	39.0	45.3	47.0	49.5	34.37.02	− 0.34	+18.39	+18.39	22 34 55.07	+ 0.04
	32	ι Cephei	N.	4	14.6	20.7	24.1	39.0	44.0	48.8	3.7	7.5	13.4	44 43.98	+ 0.22	. .	+18.40	22 45 2.60	− 0.03
	33	α Piscis Australis .	N.	3	. .	. .	1.0	3.3	5.7	8.0	10.4	. .	. .	50 5.68	− 0.56	+18.30	+18.40	22 50 23.52	+ 0.09
	34	ι Piscium, (R.) . .	N.	4	. .	. .	50.0	52.0	54.1	56.0	58.0	. .	. .	32 54.02	− 0.17	. .	+18.41	23 33 12.26	− 0.14
	35	α Andromedæ, (R.) .	N.	4	4.8	7.7	9.4	16.3	18.7	21.0	28.0	29.8	32.6	1 18.70	+ 0.02	. .	+18.42	0 1 37.14	− 0.10
	36	γ Pegasi, (R.) . .	N.	3	58.4	1.0	2.5	9.0	11.0	13.0	19.4	21.0	23.6	6 10.99	− 0.09	. .	+18.42	0 6 29.32	− 0.05
	37	Jupiter I, S. . .	N.	4	59.0	1.6	3.0	. .	. .	. .	19.3	20.8	23.4	20 11.18	− 0.39	. .	+18.43	0 20 29.22	. .
	38	Jupiter II, N. . .	N.	4	. .	. .	10.1	12.1	14.2	16.2	18.4	. .	. .	20 14.20	− 0.39	. .	+18.43	0 20 32.24	. .
	39	α Cassiopeæ, (R.) .	N.	4	25.7	30.4	32.7	43.8	47.5	51.0	2.0	4.6	9.2	32 47.43	+ 0.43	. .	+18.43	0 33 6.29	− 0.17
	40	Neptune . . .	N.	4	34.9	37.5	38.9	45.2	47.2	49.2	55.4	56.9	59.3	57 47.17	− 0.37	. .	+18.44	0 58 5.24	. .
	41	e Piscium . . .	N.	4	7.0	9.6	11.0	17.2	19.3	21.3	27.4	29.0	31.5	1 19.26	− 0.37	. .	+18.44	1 1 37.33	+ 3.18
	42	Polaris	N.	4	. .	. .	35.5	1.0	26.0	47.0	12.5	. .	. .	11 24.72	+10.76	. .	+18.44	1 11 53.92	+ 0.77
	43	Polaris, (R.) . .	N.	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	44	δ Geminorum . .	N.	3	. .	. .	. .	. .	. .	. .	7.6	9.4	12.1	11 58.89	− 0.27	+18.56	+18.56	7 12 17.18	− 0.03
	45	φ Geminorum . .	N.	4	55.5	58.6	0.0	7.0	9.3	11.6	18.5	20.1	23.1	45 9.30	− 0.24	+18.65	+18.58	7 45 27.64	− 0.11
	46	λ Ursæ Minoris, S.P.	N.	4	. .	. .	56.5	7.5	18.0	30.0	41.0	. .	. .	55 19.12	−14.62	. .	+18.58	19 55 23.08	− 1.55
	47	15 Argus	N.	2	26.2	29.0	30.4	37.3	39.6	41.8	48.5	50.0	53.1	1 39.54	− 0.52	+18.57	+18.58	8 1 57.60	− 0.01
	48	B Præsepe . . .	N.	2	. .	. .	. .	. .	. .	. .	58.6	0.3	3.1	29 50.00	− 0.29	. .	+18.59	8 30 8.30	+ 4.57
	49	Anonymous . .	N.	3	47.1	49.8	51.4	58.0	0.2	2.3	9.0	10.6	13.2	32 0.19	− 0.29	. .	+18.59	8 32 18.49	+ 4.58

2. Wire A used; bisections at wires C_1, C_3, and C_5.
3. Seems one rev. wrong.
4. R. A. observed over set E and VII.
5. Wire B used.
13.43. Bisections at sets B and D.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° '	r. "	"	"	"							"	° ' "		' "	° ' "	"
1	350 16	8.5	5.4	2.5	4.1	20	. .	. .	. .	138	400	14.3	350 20 49.3	. .	− 10.4	41 27 0.1	+ 2.7
2	23 28	13.0	8.8	5.0	7.9	25	. .	440	550	710	. .	14.3	23 33 59.4	. .	+ 26.7	74 40 47.3	
3	316 56	3.5	2.2	0.5	2.0	19	. .	555	520	560	. .	14.3	317 1 3.9	. .	− 57.1	8 6 28.0	+16.2
4	46 54	23.7	19.0	16.8	19.8	22	. .	. .	. .	. .	715	14.3	46 57 56.4	790	+ 1 5.7	98 5 23.3	+ 1.8
5	38 50	4.2	0.6	27.5	29.4	23	. .	. .	. .	996	864	13.6	38 51 26.9	713	+ 48.6	89 58 36.7	− 5.4
6	359 48	5.1	2.5	0.3	2.4	23	. .	842	. .	722	. .	13.6	359 51 58.2	. .	− 0.1	50 58 19.3	+ 0.9
7	307 28	3.0	1.3	29.9	1.6	25	. .	212	250	330	. .	13.6	307 31 36.4	680	− 1 16.0	358 36 41.6	+ 2.0
8	348 52	4.9	0.8	1.4	2.5	25	. .	288	. .	068	. .	13.6	348 55 37.2	665	− 11.7	40 1 46.7	− 0.4
9	18 58	5.5	1.9	0.5	1.6	27	. .	220	. .	115	. .	13.6	19 1 6.5	651	+ 20.5	70 7 48.2	− 0.2
10	55 36	7.8	4.6	0.3	2.5	24	610	699	. .	. .	. .	13.6	55 39 44.7	. .	+ 1 26.5	106 47 32.4	− 7.3
11	55 4	6.7	3.3	29.2	1.7	26	. .	. .	. .	016	990	13.6	55 7 22.3	633	+ 1 24.7	106 15 8.2	− 7.3
12	26 10	11.8	8.3	2.8	6.6	25	. .	700	. .	600	. .	13.6	26 13 24.7	587	+ 29.0	77 20 14.9	− 0.6
13	312 14	2.8	29.8	27.7	0.1	23?	688	850	712	. .	. .	13.6	312 18 1.8	595	− 1 4.4	3 13 18.6	− 1.5
14	47 16	10.5	7.3	3.3	7.0	28	. .	. .	. .	. .	510	13.0	47 18 39.2	. .	+ 1 4.2	98 26 4.6	− 0.5
15	38 18	11.3	7.5	2.2	7.2	24	. .	092	. .	932	. .	13.0	38 21 49.6	646	+ 46.9	89 28 57.5	−19.3
16	33 10	5.4	2.3	27.1	0.1	26	. .	. .	. .	001	. .	13.0	33 13 23.6	. .	+ 38.9	84 20 23.7	− 1.3
17	145 58	14.2	13.8	7.2	9.0	22	. .	942	. .	882	. .	13.0	146 2 2.1	. .	− 40.1	85 4 59.2	0.0
18	169 24	7.7	6.4	2.5	1.4	28	. .	896	. .	708	. .	12.5	169 26 38.0	. .	− 11.1	71 39 54.3	+ 0.9
19	24 22	12.6	8.6	4.1	6.8	23	. .	668	. .	525	. .	12.5	24 26 54.3	. .	+ 27.1	75 32 42.6	+ 2.4
20	38 14	12.4	9.5	5.0	6.4	24	054	. .	. .	. .	. .	12.5	38 17 48.2	. .	+ 47.1	89 24 56.5	− 1.3
21	38 14	12.4	9.5	5.0	6.4	20	. .	. .	. .	972	998	12.5	38 18 32.8	. .	+ 47.1	89 25 41.1	− 1.3
22	289 24	6.5	5.3	4.5	5.8	27	. .	078	102	920	. .	12.5	289 27 2.5	670	− 2 47.4	340 30 36.3	+ 4.3
23	34 24	8.1	4.0	28.6	3.3	22	. .	780	. .	768	. .	12.5	34 28 11.3	. .	+ 41.0	85 35 13.5	− 0.2
24	33 52	11.0	7.5	2.8	5.8	24	. .	582	. .	540	. .	12.5	33 55 40.8	. .	+ 40.2	85 2 42.8	−22.3
25	310 14	9.3	6.5	3.5	7.0	22	654	632	720	676	722	12.5	310 18 9.8	672	− 1 10.4	1 23 20.6	+ 0.7
26	39 40	10 13.0	9.2	3.5	6.4	27	490	. .	. .	. .	225	10.6	39 42 54.8	. .	+ 48.8	90 50 4.8	− 5.5
27	39 40	10 13.0	9.2	3.5	6.4	28	. .	452	. .	262	. .	10.6	39 42 39.5	529	+ 48.8	90 49 49.5	− 5.5
28	47 16	10 17.7	14.2	7.6	10.3	28	. .	010	. .	905	. .	10.6	47 18 41.2	. .	+ 1 2.0	98 26 4.4	− 0.8
29	38 6	15.1	11.0	5.2	7.2	22	. .	. .	845	. .	. .	10.6	38 10 2.2	491	+ 45.0	89 17 8.4	− 1.6
30	323 18	10.1	6.8	3.1	5.9	27	. .	. .	187	. .	. .	10.6	323 20 59.0	. .	− 42.6	14 26 37.6	− 2.4
31	28 42	14.0	9.2	2.8	6.8	30	. .	. .	410	. .	. .	10.6	28 44 7.9	. .	+ 31.4	79 51 0.5	− 1.3
32	333 20	10.0	6.6	3.1	4.8	26	. .	. .	528	. .	. .	10.6	333 23 9.4	494	− 28.7	24 29 1.9	− 1.9
33	69 8	11.2	9.0	1.3	4.8	29	. .	. .	961	. .	. .	10.6	69 10 16.4	. .	+ 2 29.5	120 19 7.1	+ 0.5
34	145 58	8.7	7.8	0.4	0.8	23	. .	. .	320	236	287	10.6	146 2 0.4	504	− 38.7	85 4 59.5	− 1.4
35	169 26	9.9	9.0	3.2	2.5	28	. .	. .	540	. .	. .	10.6	169 28 38.6	. .	− 10.7	61 37 53.3	0.0
36	155 30	11.1	8.9	2.6	3.4	22	. .	745	. .	676	. .	10.6	155 34 7.3	503	− 26.1	75 32 40.0	− 0.1
37	38 18	13.9	10.7	4.3	6.5	25	840	865	. .	. .	. .	10.6	38 21 18.3	. .	+ 45.4	89 28 24.9	− 1.3
38	38 18	13.9	10.7	4.9	6.5	28	. .	. .	. .	. .	546	10.6	38 20 34.8	. .	+ 45.4	89 27 41.4	− 1.3
39	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . . . .	505			
40	34 26	13.9	10.9	4.1	7.2	26	320	300	. .	225	152	10.6	34 29 10.8	. .	+ 39.5	85 36 11.5	− 0.2
41	33 52	12.3	9.6	2.2	5.1	24	. .	381	. .	278	. .	10.6	33 55 41.9	. .	+ 38.7	85 4 41.8	−22.3
42	310 14	9.0	6.9	2.8	4.8	22	931	921	920	909	950	10.6	310 18 4.9	. .	− 1 7.7	1 23 18.4	− 0.8
43	229 38	6.5	6.5	1.1	1.4	23	. .	. .	. .	435	. .	10.6	229 41 55.2	510	+ 1 7.7	1 23 18.3	− 0.9
44																	
45	11 44	9.8	8.1	3.1	4.7	25	. .	. .	572	. .	. .	10.6	11 47 23.7	521	+ 12.0	62 53 56.9	− 2.4
46	307 46	9.9	8.2	3.8	5.7	22	. .	680	671	665	. .	10.6	307 50 7.5	. .	− 1 14.1	358 55 14.6	− 1.3
47	62 44	10.1	8.9	2.8	5.6	25	. .	893	. .	764	. .	10.6	62 47 19.3	521	+ 1 51.6	113 55 32.1	0.0
48	18 48	10.5	7.9	2.6	5.3	21	. .	525	. .	530	. .	10.6	18 54 59.6	. .	+ 19.8	70 10 40.6	+ 9.7
49	18 48	10.5	7.9	2.6	5.3	23	. .	. .	020	. .	. .	10.6	19 2 2.6	. .	+ 19.9	70 8 43.7	+ 9.9

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	' "	' "
2	−23 26.9	−16 8.9

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.		h. m. s.	s.
Nov. 9	1	L Præsepe	N.	3	. .	. .	9.4	12.2	25.0	28.3	29.5	30.5	31.6	33 59.07	− 0.29	. .	+18.59	8 34 17.37	+ 4.6
	2	α Canum Venat.	E.	.	. .	. .	27.2	30.0	32.4	35.0	37.8	. .	. .	49 32.48	− 0.14	+18.66	+18.67	12 49 51.01	+ 0.02
	3	Polaris, S. P.	E.	.	. .	. .	. .	. .	. .	25.0	57.5	. .	. .	11 46.75	−11.71	. .	+18.68	1 11 53.72	+ 0.77
	4	α Virginis	E.	.	44.6	47.2	48.8	55.1	57.2	59.2	5.4	7.0	9.6	17 57.12	− 0.41	+18.72	+18.68	13 18 15.39	− 0.03
	5	α Bootis	E.	.	7.3	10.0	11.6	18.2	20.4	22.4	28.9	30.6	33.2	9 20.29	− 0.26	+18.65	+18.69	14 9 38.72	+ 0.05
10	6	Sun I, N.	E.	.	57.6	0.6	2.0	8.4	10.6	12.6	19.2	20.8	23.5	3 10.59	− 0.45	. .	+18.71	15 3 28.85	. .
	7	Sun II, S.	E.	.	13.7	16.5	17.8	24.4	26.5	28.6	35.0	36.7	39.4	5 26.51	− 0.45	. .	+18.71	15 5 44.77	. .
	8	Polaris, S. P.	T.	.	. .	. .	. .	. .	. .	. .	. .	57.0	. .	11 36.30	− 0.03	. .	+18.98	1 11 55.25	+ 2.67
	9	α Bootis	T.	.	6.8	9.6	11.2	17.7	19.9	22.0	28.6	30.2	32.8	9 19.87	− 0.21	+19.03	+19.01	14 9 38.67	− 0.01
11	10	Sun I, S.	T.	.	0.8	3.5	5.2	11.5	13.5	15.6	22.1	23.9	26.4	7 13.61	− 0.27	. .	+19.03	15 7 32.37	. .
	11	Sun II, N.	T.	.	17.4	20.0	21.6	27.8	30.0	32.3	38.5	40.1	42.8	9 30.06	− 0.27	. .	+19.03	15 9 48.82	. .
	12	α Ophiuchi	T.	.	17.8	20.4	21.9	28.0	30.3	32.3	38.4	40.2	42.6	28 30.21	− 0.22	+19.01	+19.12	17 28 49.11	+ 0.12
	13	θ Aquarii	T.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	14	π Aquarii, (R.)	T.	3	3.0	5.7	7.3	13.3	15.4	17.2	23.5	25.0	27.6	18 15.33	− 0.14	. .	+19.18	22 18 34.37	+ 0.07
	15	226 Cephei	T.	.	53.3	3.0	9.5	34.3	41.8	50.3	14.6	21.4	31.5	29 42.19	− 0.17	. .	+19.18	22 30 1.20	+ 0.64
	16	ζ Pegasi	T.	.	23.8	26.3	27.8	34.0	36.0	38.2	44.4	46.0	48.4	34 36.10	− 0.22	+19.16	+19.18	22 34 55.06	+ 0.06
	17	ι Cephei	T.	.	14.4	20.4	24.2	39.2	43.8	49.0	3.8	7.6	13.6	44 44.00	− 0.17	. .	+19.19	22 45 3.02	+ 0.49
	18	α Piscis Australis	T.	.	50.4	53.4	55.1	2.3	4.7	7.0	13.6	15.6	18.7	50 4.53	− 0.30	+19.15	+19.19	22 50 23.42	+ 0.03
	19	ι Piscium, (R.)	T.	.	40.9	43.5	44.9	53.2	55.3	57.4	1.4	3.1	5.6	32 53.24	− 0.13	. .	+19.20	23 33 12.31	− 0.07
	20	ω Piscium	T.	.	3.5	6.1	7.5	13.7	15.8	17.8	24.0	25.5	28.0	52 15.77	− 0.23	+19.23	+19.21	23 52 34.75	− 0.04
	21	α Andromedæ, (R.)	T.	2	4.1	7.1	8.7	15.7	18.0	20.4	27.2	29.0	31.9	1 18.01	− 0.07	. .	+19.22	0 1 37.16	− 0.06
	22	Jupiter I, N.	T.	.	30.3	32.9	34.4	. .	. .	. .	50.8	52.2	54.9	19 42.58	− 0.23	. .	+19.22	0 20 1.57	. .
	23	Jupiter II, S.	T.	.	. .	. .	41.5	43.5	45.8	47.7	49.7	. .	. .	19 45.64	− 0.23	. .	+19.22	0 20 4.63	. .
	24	α Cassiopeæ	T.	.	25.6	30.1	32.7	43.9	47.6	51.2	2.1	4.7	9.5	32 47.49	− 0.18	. .	+19.22	0 33 6.53	+ 0.10
	25	Anonymous	T.	.	24.6	27.1	28.6	34.7	36.6	38.8	44.8	46.6	49.2	44 36.78	− 0.23	. .	+19.22	0 44 55.77	+ 3.24
	26	Neptune	T.	.	24.1	26.8	28.3	34.5	36.5	38.6	44.6	46.1	48.6	57 36.46	− 0.23	. .	+19.23	0 57 55.46	. .
	27	ε Piscium	T.	.	6.0	8.6	10.1	16.2	18.4	20.3	26.4	28.1	30.5	1 18.29	− 0.23	. .	+19.23	1 1 37.29	+ 3.19
	28	Polaris	T.	.	. .	. .	49.0	14.0	35.0	57.0	25.0	. .	. .	11 36.32	− 0.27	. .	+19.23	1 11 55.28	+ 2.89
	29	Uranus	T.	.	. .	. .	36.5	39.0	41.0	43.1	45.5	. .	. .	14 41.02	− 0.21	. .	+19.37	7 15 0.18	. .
	30	φ Geminorum	T.	.	54.8	57.5	59.3	6.4	8.5	10.7	17.6	19.4	22.2	45 8.49	− 0.20	+19.49	+19.38	7 45 27.67	− 0.15
	31	λ Ursæ Minoris, S. P.	T.	.	. .	. .	42.0	51.0	5.0	22.0	31.0	. .	. .	55 6.58	+ 0.01	. .	+19.39	19 55 25.98	+ 4.20
	32	15 Argus	T.	.	25.4	28.0	29.7	36.5	38.7	41.0	47.6	49.2	52.1	1 38.69	− 0.28	+19.24	+19.39	8 1 57.80	+ 0.13
	33	C Præsepe	T.	.	42.8	45.4	47.0	53.6	55.7	57.9	4.5	6.0	8.9	29 55.76	− 0.21	. .	+19.40	8 30 14.95	+ 4.50
	34	K Præsepe	T.	.	52.0	54.8	56.3	3.0	5.1	7.2	13.8	15.4	18.2	32 5.09	− 0.21	. .	+19.40	8 32 24.22	+ 4.52
	35	ε Hydræ	T.	.	17.7	20.2	21.8	27.9	30.0	32.2	38.2	40.0	42.4	39 30.04	− 0.23	+19.52	+19.40	8 39 49.21	− 0.12
	36	α Canum Venat.	N.	3	15.9	19.0	20.9	29.0	31.6	34.2	42.0	44.0	47.4	49 31.56	− 0.19	+19.67	+19.64	12 49 51.01	− 0.02
	37	Polaris, S. P.	F.	.	59.0	15.0	14.0	. .	. .	. .	56.0	54.0	8.0	11 34.45	− 1.34	. .	+19.65	1 11 52.76	+ 0.54
	38	Polaris, S. P.	N.	4	. .	. .	23.0	59.0	34.0	11.0	47.0	. .	. .	11 34.48	− 1.34	. .	+19.65	1 11 52.79	+ 0.57
	39	η Ursæ Majoris	N.	2	40.6	44.8	47.2	56.6	59.8	3.0	12.5	15.0	19.0	41 59.83	− 0.14	. .	+19.66	13 42 19.35	− 0.01
	40	η Bootis	N.	3	52.0	54.6	56.1	2.7	4.9	7.0	13.6	15.2	17.9	48 4.89	− 0.21	+19.67	+19.67	13 48 24.35	− 0.03
	41	α Bootis, (R.)	N.	2	6.1	8.9	10.4	17.0	19.2	21.4	27.9	29.5	32.1	9 19.17	− 0.14	. .	+19.67	14 9 38.70	+ 0.01
	42	Mercury II, C.	N.	1	35.0	37.5	39.0	45.3	47.4	49.4	55.7	57.1	59.7	17 47.34	− 0.27	. .	+19.67	14 18 6.74	− 0.29
12	43	Sun I, N.	N.	1	4.6	7.5	9.0	15.6	17.7	19.8	26.2	27.8	30.5	11 17.63	− 0.29	. .	+19.70	15 11 37.04	. .
	44	Sun II, S.	N.	1	21.4	24.1	25.7	32.0	34.3	36.2	42.9	44.5	47.0	13 34.23	− 0.29	. .	+19.70	15 13 53.64	. .
	45	δ Ursæ Minoris	N.	2	. .	. .	. .	. .	40.5	15.0	23.0	49.0	32.0	14 5.52	+ 0.33	. .	+19.75	18 14 25.60	− 1.21
	46	α Aquarii, (R.)	N.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	47	226 Cephei	N.	2	51.4	1.1	6.8	32.6	40.8	48.9	13.1	19.1	29.4	29 40.36	− 0.05	. .	+19.87	22 30 0.18	− 0.30
	48	ζ Pegasi	N.	2	23.0	25.6	27.0	33.5	35.5	37.5	43.7	45.3	47.9	34 35.44	− 0.22	+19.81	+19.87	22 34 55.09	+ 0.10
	49	α Piscis Australis	N.	1	49.8	52.8	54.3	1.6	4.0	6.3	13.5	15.1	18.2	50 3.96	− 0.33	+19.74	+19.88	22 50 23.51	+ 0.13

1. R. A. observed over wires D_2, D_3, and set E.
15.37.47. Bisections over sets B and D.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	18 28	11.1	8.6	2.7	5.0	19	. .	. .	. .	095	. .	10.6	18 33 1.5	. .	+ 19.4	69 39 42.1	+10.0
2	359 48	12.8	9.1	5.0	7.0	23	. .	. .	. .	075	125	10.8	359 51 59.1	. .	− 0.1	50 58 20.2	+ 0.9
3	307 28	5.8	3.5	0.5	2.0	25	. .	. .	. .	200	218	10.8	307 31 32.6	. .	− 1 13.5	358 36 40.3	− 0.6
4	49 18	10 24.7	21.0	15.6	16.4	26	. .	865	. .	775	. .	10.8	49 20 51.8	. .	+ 1 5.7	100 28 18.7	− 0.2
5	18 58	16.1	13.1	7.8	7.7	26	250	270	. .	110	080	10.8	19 1 10.1	. .	+ 19.3	70 7 50.6	+ 1.5
6	55 56	9.6	5.4	28.6	2.9	28	530	500	. .	. .	. .	10.8	55 58 42.5	. .	+ 1 22.6	107 6 26.3	− 7.3
7	56 28	12.5	8.1	2.6	7.0	26	. .	. .	. .	795	740	10.8	55 31 2.9	383	+ 1 21.2	106 38 45.3	− 7.4
8																	
9	18 58	19.6	17.2	12.4	12.6	26	. .	058	. .	923	. .	11.0	19 1 8.9	605	+ 20.3	70 7 50.3	+ 0.9
10	56 44	16.5	12.5	7.2	8.5	24	860	978	. .	. .	. .	11.0	56 47 30.6	. .	+ 1 29.2	107 55 21.0	− 7.4
11	56 12	14.0	11.8	5.0	7.7	26	. .	. .	. .	470	430	11.0	56 15 6.0	584	+ 1 27.4	107 22 54.6	− 7.4
12	26 10	15.7	13.8	8.0	10.1	25	. .	120	. .	960	. .	11.0	26 13 26.9	580	+ 28.8	77 20 16.9	+ 0.8
13	47 16	20.6	18.5	13.0	13.0	27	. .	702	. .	772	. .	11.0	47 18 41.1	660	+ 1 4.5	98 26 6.8	+ 1.5
14	141 46	14.4	14.0	7.4	6.4	22	. .	952	. .	912	. .	11.3	141 50 0.7	. .	− 46.8	89 17 7.3	− 2.8
15	323 18	16.5	14.8	10.9	10.5	26	. .	635	. .	603	. .	11.3	323 21 1.9	. .	− 44.4	14 26 38.7	− 0.9
16	28 42	14.3	11.5	4.8	7.2	30	. .	520	. .	430	. .	11.3	28 44 6.4	669	+ 33.7	79 51 1.3	− 0.4
17	333 20	11.5	9.8	5.6	5.6	26	. .	458	. .	172	. .	11.3	333 23 11.5	. .	− 29.9	24 29 2.8	− 0.7
18	69 6	16.6	15.0	9.4	8.8	22	. .	333	. .	204	. .	11.3	69 10 8.7	670	+ 2 35.7	120 19 5.6	− 1.2
19	145 58	17.0	15.9	9.0	8.6	22	. .	860	. .	800	. .	11.5	146 2 0.3	680	− 40.3	85 5 1.2	+ 0.2
20	32 42	20.0	17.7	10.9	12.0	27	. .	778	. .	608	. .	11.5	32 44 43.5	683	+ 38.5	83 51 43.2	− 0.6
21	169 26	18.0	16.6	12.0	9.1	28	. .	198	180	980	. .	11.5	169 28 38.0	. .	− 11.1	61 37 54.3	+ 1.1
22	38 20	11.6	8.2	4.0	4.6	27	470	. .	. .	. .	. .	11.5	38 22 56.2	. .	+ 47.5	89 30 4.9	− 1.3
23	38 20	11.6	8.2	4.0	4.6	23	. .	. .	. .	842	. .	11.5	38 23 49.6	. .	+ 47.5	89 30 58.3	− 1.3
24	343 2	13.6	11.5	7.8	8.3	27	. .	. .	. .	796	810	11.6	343 4 46.5	. .	− 18.2	34 10 49.5	+ 2.0
25	33 18	18.5	16.3	10.5	11.1	26	. .	846	. .	774	. .	11.6	33 20 58.2	. .	+ 39.5	84 27 58.9	−22.2
26	34 26	15.6	13.0	6.4	9.2	22	582	582	. .	530	486	11.6	34 30 6.4	. .	+ 41.2	85 37 8.9	− 0.2
27	33 52	16.4	13.6	7.5	8.3	24	. .	230	. .	170	. .	11.6	33 55 40.7	. .	+ 40.3	85 2 42.2	−22.4
28	310 14	17.5	15.8	11.4	12.0	22	308	342	352	314	218	11.6	310 18 7.1	690	− 1 10.6	1 23 17.7	− 0.9
29	16 6	18.8	16.0	9.5	10.0	29	. .	. .	. .	968	896	12.7	16 8 11.1	735	+ 17.6	67 14 49.9	− 0.1
30	11 44	12.9	11.4	6.8	6.6	25	. .	468	. .	526	. .	12.7	11 47 24.2	. .	+ 12.7	62 53 58.1	− 1.3
31	307 46	10.4	8.4	4.8	6.1	22	514	342	373	405	272	12.7	307 50 13.4	. .	− 1 18.1	358 55 16.5	+ 0.7
32	62 44	12.4	10.0	5.5	6.6	26	. .	420	. .	240	. .	12.7	62 47 11.9	744	+ 1 57.7	113 55 30.8	− 1.5
33	19 6	14.1	11.3	6.5	8.6	22	. .	989	. .	999	. .	12.7	19 10 1.7	. .	+ 21.1	70 6 44.0	+ 9.5
34	18 48	14.2	11.8	7.4	8.6	20	. .	860	. .	860	. .	12.7	18 52 33.8	. .	+ 20.8	69 59 15.8	+ 9.6
35	31 56	11.4	8.8	2.6	4.7	26	. .	770	. .	750	. .	12.7	31 59 7.3	750	+ 38.0	83 6 6.5	+ 0.1
36	359 48	7.6	6.0	3.6	3.0	23	. .	. .	628	. .	. .	13.7	359 51 57.9	. .	− 0.1	50 58 19.0	− 1.0
37	307 28	7.4	7.0	5.1	5.0	24	738	730	. .	749	564	13.7	307 31 38.1	. .	− 1 18.3	358 36 41.0	− 0.5
38	307 28	7.9	7.3	5.0	5.5	24	870	935	882	931	870	13.7	307 31 36.9	709	− 1 18.3	358 36 39.8	− 1.7
39	348 52	8.4	5.7	3.7	4.3	25	. .	061	. .	913	. .	13.7	348 55 37.1	698	− 11.8	40 1 46.5	− 2.4
40	19 46	8.2	6.8	4.0	3.8	24	. .	562	. .	435	. .	13.7	19 49 44.1	. .	+ 21.7	70 56 27.0	− 1.5
41	160 56	8.0	7.6	3.2	2.4	28	085	069	. .	002	834	13.7	160 58 50.6	697	− 20.7	70 7 51.3	+ 1.6
42	50 38	9.6	7.7	3.2	4.5	25	. .	435	. .	285	. .	13.7	50 41 30.2	. .	+ 1 13.3	101 49 4.7	− 8.8
43	56 28	9.1	7.7	4.2	4.7	26	298	245	. .	. .	. .	13.7	56 31.17.4	. .	+ 1 30.3	107 39 8.9	− 7.4
44	57.00	10.2	6.7	3.3	3.3	24	. .	. .	. .	940	875	13.7	57 3 36.0	680	+ 1 32.2	108 11 29.4	− 7.5
45																	
46	140 6	11.1	10.1	4.4	4.7	23	. .	. .	. .	542	489	13.7	140 9 56.1	712	− 50.3	90 57 15.4	− 0.8
47	323 18	7.0	4.8	2.2	3.8	27	365	396	. .	300	376	13.7	323 21 1.7	. .	− 44.9	14 26 38.0	− 1.5
48	28 42	9.6	6.2	1.8	4.0	30	. .	928	. .	747	. .	13.7	28 44 7.4	. .	+ 33.1	79 51 1.7	− 0.2
49	69 8	13.4	11.4	5.2	7.7	30	. .	500	. .	365	. .	13.7	69 10 9.3	. .	+ 2 37.7	120 19 8.2	+ 1.3

No.	Barom.	External Therm.	Attached Therm.		No.	MOON'S—	
						Parallax.	Semi-diam.
	in.	°	°	*For summary of the elements of reduction see page 3.*		′ ″	′ ″

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Nov. 12	1	ι Piscium, (R.)	N.	2	40.4	43.0	44.4	50.5	52.7	54.6	0.7	2.1	4.8	32 52.58	− 0.18	. .	+19.90	23 33 12.30	− 0.06
	2	γ Pegasi, (R.)	N.	2	56.8	59.6	1.0	5.3	7.6	9.8	11.7	. .	. .	6 9.58	− 0.16	. .	+19.91	0 6 29.33	− 0.01
	3	Jupiter I, N.	N.	3	16.8	19.5	21.0	. .	. .	. .	37.2	38.8	41.2	19 29.08	− 0.24	. .	+19.92	0 19 48.76	. .
	4	Jupiter II, S.	N.	2	. .	. .	28.1	30.2	32.2	34.3	36.2	. .	. .	19 32.20	− 0.24	. .	+19.92	0 19 51.88	. .
	5	α Cassiopeæ, (R.)	N.	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	6	Anonymous	N.	1	24.0	26.2	27.8	32.1	34.1	. .	38.3	40.3	. .	44 36.14	− 0.23	. .	+19.93	0 44 55.84	+ 3.23
	7	Neptune	N.	3	18.6	21.2	22.7	28.9	31.1	33.1	39.0	40.6	43.0	57 30.91	− 0.23	. .	+19.94	0 57 50.62	. .
	8	ε Piscium	N.	3	5.1	8.0	9.4	15.5	17.6	19.6	25.9	27.3	29.7	1 17.57	− 0.23	. .	+19.94	1 1 37.28	+ 3.19
	9	Polaris	N.	2	. .	. .	42.5	7.0	32.0	54.5	22.0	. .	. .	11 31.92	+ 1.06	. .	+19.94	1 11 52.92	+ 0.86
	10	θ Ceti	N.	3	56.3	59.0	0.5	6.8	8.8	10.9	17.1	18.6	21.0	17 8.78	− 0.27	+19.94	+19.94	1 17 28.45	0.00
	11	Uranus I, C.	N.	3	22.2	24.8	26.4	. .	. .	. .	44.3	46.0	48.6	14 35.38	− 0.19	. .	+20.09	7 14 55.28	. .
	12	Uranus II	N.	3	. .	. .	31.0	33.4	35.7	37.8	40.0	. .	. .	14 35.58	− 0.19	. .	+20.09	7 14 55.48	. .
	13	ε Draconis, S. P.	N.	2	51.5	43.8	39.7	21.3	15.4	9.8	51.8	47.2	39.8	48 15.63	− 0.21	. .	+20.10	19 48 35.52	+ 0.46
	14	λ Ursæ Min., S. P.	N.	3	. .	. .	32.0	44.1	56.0	9.5	. .	. .	. .	54 55.85	− 1.67	. .	+20.10	19 55 14.28	− 6.35
	15	15 Argus	N.	3	24.3	27.2	28.8	35.7	37.7	39.9	46.7	48.5	51.0	1 37.76	− 0.31	+20.23	+20.11	8 1 57.56	− 0.14
	16	C Præsepe	N.	1	. .	50.6	52.9	55.0	57.1	59.3	3.4	5.4	8.1	29 55.05	− 0.20	. .	+20.12	8 30 14.97	+ 4.46
	17	K Præsepe	N.	1	51.5	54.1	55.5	2.1	4.5	6.5	13.1	14.9	17.4	32 4.40	− 0.20	. .	+20.12	8 32 24.32	+ 4.49
	18	ι Ursæ Majoris, (R.)	N.	2	33.6	39.5	45.9	49.0	52.0	. .	4.3	6.7	10.6	49 52.03	− 0.06	. .	+20.13	8 50 12.10	+ 0.07
	19	κ Cancri	N.	3	5.5	8.1	9.6	15.9	18.0	19.9	26.2	27.7	30.3	0 17.91	− 0.22	+20.19	+20.13	9 0 37.82	− 0.06
	20	α Cephei, S. P.	N.	2	33.0	27.5	24.2	11.1	6.9	2.4	49.3	46.2	40.7	15 6.81	− 0.17	. .	+20.14	21 15 26.78	− 0.21
	21	α Hydræ, (R.)	N.	1.2	. .	. .	43.9	46.0	48.0	. .	. .	. .	. .	20 48.03	− 0.22	. .	+20.14	9 21 7.95	− 0.08
	22	α Canum Venat.	E.	.	. .	. .	. .	. .	. .	6.5	7.7	9.1	10.5	49 31.07	− 0.14	+20.14	+20.21	12 49 51.14	+ 0.08
	23	Polaris, S, P.	E.	.	. .	. .	22.0	55.0	31.0	6.0	43.5	. .	. .	11 31.18	− 2.32	. .	+20.22	1 11 49.08	− 2.83
	24	α Virginis	E.	.	. .	. .	. .	. .	20.3	23.5	24.5	25.5	26.6	17 55.46	− 0.26	+20.29	+20.22	13 18 15.42	− 0.06
13	25	Sun I, N.	E.	.	9.6	12.1	13.8	20.5	22.5	24.5	31.0	32.7	35.3	15 22.44	− 0.28	. .	+20.27	15 15 42.43	. .
	26	Sun II, S.	E.	.	26.4	29.0	30.6	37.2	39.3	41.4	47.8	49.6	52.1	17 39.27	− 0.28	. .	+20.27	15 17 59.26	. .
	27	Anonymous	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	28	ο Cephei	E.	.	24.0	30.8	34.9	50.7	56.1	1.3	16.9	21.4	27.6	12 55.97	− 0.02	. .	+20.45	23 13 16.40	− 0.67
	29	θ Piscium	E.	.	46.4	48.9	50.4	56.5	58.7	0.7	6.8	8.5	11.0	20 58.66	− 0.21	+20.46	+20.45	23 21 18.90	+ 0.04
	30	ι Piscium	E.	.	39.8	42.5	43.9	50.1	52.1	54.1	0.2	1.8	4.4	32 52.10	− 0.22	+20.45	+20.46	23 33 12.34	− 0.01
	31	4163 Groombridge	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	32	ω Piscium	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	33	γ Pegasi, (R.)	E.	.	. .	4.8	7.0	9.0	11.2	13.4	17.5	19.0	21.7	6 9.07	− 0.16	. .	+20.47	0 6 29.38	+ 0.05
	34	Jupiter I, S.	E.	.	. .	6.7	8.1	. .	. .	. .	24.5	26.0	28.5	19 16.31	− 0.23	. .	+20.47	0 19 36.55	. .
	35	Jupiter II, N.	E.	.	. .	. .	15.3	17.4	19.5	21.4	23.6	. .	. .	19 19.45	− 0.23	. .	+20.47	0 19 39.69	. .
	36	κ Draconis, S. P.	E.	.	5.1	57.1	53.1	34.7	28.0	22.4	3.8	59.5	51.5	27 28.36	− 0.28	. .	+20.48	12 27 48.56	+ 0.91
	37	α Cassiopeæ	E.	.	24.0	28.5	30.9	42.0	45.6	49.1	0.1	2.9	7.1	32 45.61	− 0.09	. .	+20.48	0 33 6.00	− 0.40
	38	Anonymous	E.	.	55.5	58.1	0.0	5.9	8.0	10.1	16.0	18.0	20.2	44 7.98	− 0.22	. .	+20.48	0 44 28.24	+ 3.25
	39	Neptune	E.	.	13.5	16.1	17.6	23.6	25.9	27.8	33.9	35.4	38.0	59 25.76	− 0.22	. .	+20.49	0 59 46.03	. .
	40	ε Piscium	E.	.	4.7	7.4	8.9	15.0	17.1	19.0	25.1	26.7	29.1	1 17.00	− 0.22	. .	+20.49	1 1 37.27	+ 3.19
	41	Polaris	E.	.	. .	. .	35.0	1.0	29.0	48.0	17.0	. .	. .	11 26.32	+ 2.04	. .	+20.49	1 11 48.85	− 2.91
	42	η Piscium, (R)	E.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	43	ο Piscium	E.	.	56.1	58.6	0.0	6.4	8.5	10.3	16.6	18.3	20.8	38 8.40	− 0.21	+20.56	+20.50	1 38 28.69	− 0.10
	44	β Arietis, (R)	E.	.	51.0	54.0	0.0	2.1	4.0	6.4	8.7	14.6	17.2	47 4.28	− 0.14	. .	+20.51	1 47 24.65	+ 0.04
	45	α Arietis	E.	.	14.3	17.0	18.5	25.3	27.5	29.6	36.4	38.0	40.8	59 27.49	− 0.18	+20.51	+20.51	1 59 47.82	+ 0.01
	46	ξ^1 Ceti	E.	.	31.0	33.6	35.0	41.4	43.5	45.3	51.5	53.2	56.0	5 43.39	− 0.21	+20.45	+20.51	2 6 3.69	+ 0.09
	47	ι Cassiopeæ	E.	.	29.3	35.1	39.2	54.6	0.0	4.8	20.0	24.2	31.1	17 59.81	− 0.04	. .	+20.52	2 18 20.29	− 0.31
	48	5 Ursæ Min., S. P.	E.	.	. .	. .	42.2	32.1	23.7	15.7	7.5	. .	. .	27 24.21	− 0.35	. .	+20.52	14 27 44.38	+ 1.17
	49	Sylvia?	E.	.	32.2	34.8	36.5	42.7	44.6	46.3	52.2	54.4	57.0	35 44.52	− 0.22	. .	+20.53	2 36 4.83	. .
	50	Undina?	E.	.	47.3	49.7	51.4	57.3	59.5	1.5	7.4	9.0	11.5	7 59.40	− 0.22	. .	+20.54	3 8 19.72	. .

22.24. Transit over set E.
28. Wire B used.
44. Seems one rev. wrong.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° '	r. "	"	"	"							"	° ' "		' "	° ' "	"
1	145 58	7.5	7.1	1.9	1.0	23	. .	406	. .	. .	340	13.7	146 2 2.5	731	— 40.8	85 4 59.5	— 1.6
2	155 30	6.8	4.8	0.6	0.4	23	030	005	. .	. .	900	13.7	155 34 9.9	. .	— 27.5	75 32 38.8	— 1.3
3	38 20	10.2	7.6	3.5	4.9	23	205	210	. .	. .	. .	13.7	38 24 3.9	733	+ 48.0	89 31 13.1	— 1.3
4	38 20	10.2	7.6	3.5	4.9	20	. .	. .	. .	205	226	13.7	38 24 47.5	. .	+ 48.0	89 31 56.7	— 1.3
5	196 52	5.4	6.9	2.8	1.0	26	. .	. .	. .	280	250	13.7	196 55 16.8	. .	+ 18.5	34 10 45.9	— 1.4
6	33 18	7.5	5.3	0.7	2.7	27	762	. .	. .	. .	538	13.7	33 20 57.5	. .	+ 39.9	84 27 58.6	—22.1
7	34 26	10.2	7.6	2.8	5.2	21	360	249	. .	218	174	13.7	34 30 32.9	. .	+ 41.8	85 37 35.9	— 0.2
8	33 52	9.6	7.2	2.2	3.8	24	944	878	. .	781	740	13.7	33 55 38.9	747	+ 40.9	85 4 41.0	—22.4
9	310 14	5.2	3.9	1.3	2.7	23	080	064	014	076	045	13.7	310 18 8.6	. .	— 1 11.6	1 23 18.2	— 0.1
10	47 40	9.9	8.7	3.9	5.4	22	. .	559	. .	385	. .	13.7	47 44 13.6	750	+ 1 6.9	98 51 41.7	— 1.3
11	16 4	12.2	9.2	5.7	6.5	23	375	. .	. .	. .	125	13.7	16 8 0.7	. .	+ 17.8	67 14 39.7	— 0.1
12																	
13	288 48	5.4	4.0	2.6	3.8	19	558	510	. .	. .	370	13.7	288 53 1.0	792	— 2 58.3	339 56 23.1	— 0.4
14	307 46	9.2	7.2	5.1	6.7	22	. .	. .	550	. .	. .	13.7	307 50 12.4	. .	— 1 19.1	358 55 14.5	— 1.1
15	62 44	6.0	4.2	0.6	2.1	26	952	948	. .	701	760	13.7	62 47 10.4	801	+ 1 59.2	113 55 30.8	— 1.7
16	19 6	11.8	9.0	5.4	7.0	23	. .	274	. .	142	. .	13.7	19 10 1.2	. .	+ 21.4	70 16 43.8	+ 9.4
17	18 48	10.8	8.2	4.9	6.8	21	. .	154	. .	093	. .	13.7	18 52 33.7	804	+ 21.1	69 59 16.0	+ 9.5
18	189 36	5.1	5.8	3.1	1.0	26	656	601	. .	510	459	13.7	189 40 13.9	. .	+ 10.5	41 25 56.8	— 1.2
19	27 38	9.2	6.4	2.8	4.6	25	. .	658	. .	535	. .	13.7	27 41 27.2	. .	+ 32.3	78 48 20.7	— 1.2
20	280 56	5.6	5.2	3.1	3.6	19	945	835	. .	790	482	13.7	281 0 56.6	. .	— 5 8.0	332 2 9.8	0.0
21	132 58	6.3	5.0	1.2	1.0	23	. .	. .	395	. .	278	13.7	133 2 3.5	804	— 1 6.0	98 4 23.7	+ 1.3
22	359 48	9.0	5.7	3.5	4.3	23	. .	. .	. .	. .	555	13.7	359 51 57.8	. .	— 0.1	50 58 18.9	— 1.4
23	307 28	1.3	0.2	29.7	29.8	25	340	280	220	260	265	13.7	307 31 37.4	. .	— 1 18.4	358 36 40.2	— 1.6
24	49 18	8.9	4.0	2.7	2.8	28	. .	. .	. .	. .	240	13.7	49 20 46.5	. .	+ 1 10.1	100 28 17.8	— 1.4
25	56 44	12.0	7.7	4.3	6.1	27	000	990	. .	. .	. .	13.7	56 47 5.2	. .	+ 1 30.5	107 54 56.9	— 7.5
26	57 16	5.8	2.1	28.9	3.1	25	. .	. .	. .	350	405	13.7	57 19 32.2	. .	+ 1 32.4	108 27 25.8	— 7.5
27	32 42	5.3	2.2	27.4	0.9	22	. .	080	. .	900	. .	13.7	32 46 26.6	. .	+ 38.4	83 53 26.2	—17.3
28	331 28	7.6	3.2	1.7	3.5	20	. .	590	420	435	. .	13.7	331 30 17.9	. .	— 32.4	22 36 6.7	+ 0.4
29	33 10	9.1	6.2	1.6	4.7	25	. .	. .	. .	718	735	13.7	33 13 24.6	. .	+ 39.1	84 20 24.9	— 0.3
30	33 54	7.7	4.6	0.5	2.2	23	. .	300	. .	490	. .	13.7	33 58 2.8	. .	+ 40.3	85 5 4.3	+ 3.2
31	325 10	6.1	2.7	0.9	3.2	26	. .	340	290	275	. .	13.7	325 13 18.9	. .	— 41.6	16 18 58.5	+ 1.0
32	32 42	12 21.6	19.0	12.5	15.6	25	730	700	. .	530	520	13.7	32 44 15.4	. .	+ 38.5	83 51 15.1	— 1.0
33	155 30	4.5	3.2	29.5	0.3	23	030	190	. .	175	100	13.7	155 34 8.7	. .	— 27.3	75 32 39.8	— 0.3
34	38 22	5.1	2.3	29.5	0.3	24	405	350	. .	. .	. .	13.7	38 25 50.8	. .	+ 47.6	89 32 59.6	— 1.3
35	38 22	5.1	2.3	29.5	0.3	27	. .	. .	. .	090	172	13.7	38 25 6.6	. .	+ 47.6	89 32 15.4	— 1.3
36	289 24	4.0	2.2	29.7	2.3	27	. .	340	285	310	. .	13.7	289 27 4.4	. .	— 2 48.7	340 30 36.9	+ 3.6
37	343 2	6.0	3.5	0.0	1.8	28	. .	430	. .	350	. .	13.7	343 4 47.8	. .	— 18.3	34 10 50.7	+ 3.6
38	33 18	6.0	4.0	29.0	2.1	24	285	460	. .	400	350	13.7	33 21 47.8	. .	+ 39.6	84 28 48.6	—22.3
39	34 28	9.5	6.3	1.7	3.7	27	370	400	. .	260	150	13.7	34 31 1.6	. .	+ 41.4	85 38 4.2	— 0.2
40	33 52	8.1	6.0	29.0	2.2	24	730	. .	. .	. .	700	13.7	33 55 42.6	. .	+ 40.5	85 2 44.3	—22.5
41	310 14	4.2	1.5	0.6	1.0	23	170	110	140	200	120	13.7	310 18 8.7	. .	— 1 11.0	1 23 18.9	+ 0.9
42	155 44	2.8	0.2	26.1	27.0	28?	. .	. .	. .	000	840	13.7	155 46 57.1	730	— 27.2	75 19 51.3	— 0.4
43	30 20	9.2	6.2	2.7	4.0	26	130	150	. .	200	180	13.7	30 23 18.8	. .	+ 35.5	81 30 15.5	+ 2.3
44	161 14	3.5	2.7	0.0	29.3	28	. .	060	. .	990	. .	13.7	161 16 54.2	. .	— 20.5	69 49 47.5	—15.2
45	16 0	6.4	2.7	29.0	1.3	28	000	940	. .	830	850	13.7	16 2 55.4	. .	+ 17.4	67 9 34.0	+ 2.2
46	30 36	7.7	5.0	0.0	3.5	26	. .	220	. .	375	. .	13.7	30 39 18.2	. .	+ 35.9	81 46 15.3	+ 2.5
47	332 2	3.5	2.0	29.2	0.8	25	. .	520	510	435	. .	13.7	332 5 33.3	. .	— 32.1	13 11 22.4	— 0.5
48	295 8	5.5	2.5	0.5	2.0	21	. .	230	395	280	. .	13.7	295 12 35.8	. .	— 2 8.1	346 16 48.9	+ 2.4
49	32 36	4.8	3.5	28.0	29.7	25	. .	. .	. .	220	355	13.7	32 39 35.1	. .	+ 38.9	83 46 35.2	— 2.0
50	33 36	9.2	5.8	1.5	2.6	22	. .	. .	. .	520	. .	13.7	33 40 14.3	. .	+ 40.4	84 47 15.9	— 2.3

No.	Barom.	External Therm.	Attached Therm.		No.	MOON'S—	
						Parallax.	Semi-diam.
	in.	°	°			' "	' "
				For summary of the elements of reduction see page 3.			

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan'us Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Nov. 13	1	Weisse III, 400 .	E.	.	15.6	18.3	19.7	25.9	28.0	30.0	36.0	37.5	40.0	23 27.89	− 0.22	. .	+20.54	3 23 48.21	+ 3.01
	2	δ Persei	E.	.	58.4	2.3	4.6	13.5	16.6	19.6	28.6	31.0	34.7	33 16.59	− 0.12	. .	+20.54	3 33 37.01	0.00
	3	η Tauri	E.	.	8.5	11.3	13.0	19.6	22.0	24.1	30.7	32.5	35.4	39 21.90	− 0.17	+20.56	+20.54	3 39 42.27	− 0.01
	4	12 Canum Venat. .	T.	.	14.8	18.0	19.9	28.0	30.5	33.2	41.0	43.1	46.3	49 30.53	− 0.10	+20.66	+20.66	12 49 51.09	+ 0.01
	5	Polaris, S. P. . .	T.	.	. .	. .	. .	. .	. .	. .	53.0	. .	. .	11 40.50	−10.04	. .	+20.67	1 11 51.13	− 0.48
	6	α Bootis	T.	.	5.3	8.0	13.9	16.2	18.3	20.4	22.6	28.6	31.4	9 18.30	− 0.22	+20.65	+20.69	14 9 38.77	+ 0.05
	7	Mercury II, S. .	T.	.	53.4	56.1	57.6	3.9	6.1	8.1	14.3	15.9	18.5	17 5.99	− 0.39	. .	+20.69	14 17 26.29	− 0.28
	8	β Ursæ Minoris . .	T.	.	53.2	2.7	8.1	31.6	40.1	47.4	10.3	16.5	25.8	50 39.52	− 0.59	. .	+20.71	14 50 59.64	− 1.13
14	9	Sun I, S. . . .	T.	.	15.6	18.4	24.2	26.3	28.6	30.7	32.9	38.7	41.4	19 28.53	− 0.43	. .	+20.72	15 19 48.82	. .
	10	Sun II, N. . . .	T.	.	32.5	35.2	41.2	43.2	45.5	47.6	49.7	55.8	58.3	21 45.44	− 0.43	. .	+20.72	15 22 5.73	. .
	11	α Ophiuchi . . .	T.	.	15.9	18.6	20.1	26.4	28.5	30.6	36.7	38.5	41.1	28 28.49	− 0.26	+20.75	+20.76	17 28 48.99	+ 0.02
	12	λ Aquarii . . .	H.	3	13.0	15.6	17.0	23.4	25.4	27.4	33.5	35.1	37.7	45 25.34	− 0.37	. .	. .	. . . .	. .
	13	Anonymous . .	H.	2	22.4	24.8	26.4	32.7	34.6	36.7	42.8	44.4	47.0	2 34.64	− 0.32	. .	+20.89	23 2 55.21	+ 3.74
	14	γ Pegasi, (R.) . .	T.	3	56.0	58.6	4.3	6.5	8.6	10.6	12.8	18.7	21.4	6 8.61	− 0.21	. .	+20.91	0 6 29.31	− 0.01
	15	Jupiter I, N. . .	T.	.	52.4	54.8	56.3	. .	. .	. .	12.6	14.3	16.8	19 4.53	− 0.32	. .	+20.91	0 19 25.12	. .
	16	Jupiter II, S. . .	T.	.	. .	. .	3.5	5.6	7.8	9.7	11.8	. .	. .	19 7.69	− 0.32	. .	+20.91	0 19 28.28	. .
	17	κ Draconis, S. P. .	T.	.	4.6	57.0	52.8	34.2	28.0	21.9	3.1	58.5	51.4	27 27.94	− 0.94	. .	+20.92	12 27 47.92	+ 0.22
	18	α Cassiopeæ . . .	T.	.	23.6	28.0	30.8	41.8	45.4	49.0	59.9	2.4	7.2	32 45.34	+ 0.06	. .	+20.92	0 33 6.32	− 0.07
	19	Anonymous . .	T.	3	49.0	51.6	53.3	59.1	1.3	3.2	9.4	11.1	13.6	44 1.29	− 0.30	. .	+20.93	0 44 21.92	+ 3.23
	20	Neptune . . .	T.	.	8.2	11.1	12.3	18.6	20.6	22.6	28.8	30.4	32.9	57 20.61	− 0.30	. .	+20.93	0 57 41.24	. .
	21	ε Piscium . . .	T.	.	4.3	7.0	8.4	14.6	16.6	18.6	24.8	26.4	29.0	1 16.63	− 0.29	. .	+20.93	1 1 37.27	+ 3.20
	22	Polaris . . .	T.	.	. .	41.0	41.0	. .	. .	. .	58.0	59.0	46.0	11 21.32	+ 9.50	. .	+20.94	1 11 51.76	+ 0.30
	23		T.	.	. .	. .	32.0	59.0	23.0	46.0	13.0	. .	. .						
	24	η Piscium, (R.) . .	T.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	25	ο Piscium . . .	T.	.	55.7	58.3	59.7	5.9	8.0	10.1	16.3	17.8	20.4	38 8.02	− 0.28	+21.01	+20.95	1 38 28.69	− 0.10
	26	α Arietis	T.	.	13.7	16.6	18.2	24.9	27.1	29.4	35.8	37.4	40.3	59 27.04	− 0.20	+20.98	+20.95	1 59 47.79	− 0.02
	27	ξ¹ Ceti	T.	.	30.6	33.2	34.6	40.9	43.0	45.0	51.3	52.9	55.4	5 42.99	− 0.28	+20.92	+20.96	2 6 3.67	+ 0.07
	28	ι Cassiopeæ . . .	T.	.	. .	. .	. .	59.7	5.0	10.4	20.5	24.5	31.2	17 59.93	+ 0.29	. .	+20.96	2 18 21.18	+ 0.58
	29	5 Ursæ Min., S. P. .	T.	.	. .	. .	. .	. .	. .	. .	48.9	43.0	32.0	26 23.55	− 1.24	. .	+20.96	14 26 43.27	+ 0.04
	30	Sylvia	T.	.	17.2	19.5	21.4	. .	. .	. .	. .	. .	42.1	34 29.53	− 0.29	. .	+20.96	2 34 50.20	. .
	31	δ Persei	T.	.	58.2	2.1	4.2	13.4	16.4	19.3	28.5	30.7	34.6	33 16.38	− 0.03	. .	+20.99	3 33 37.34	+ 0.31
	32	λ Ursæ Min., S. P. .	T.	.	. .	. .	49.0	1.0	11.0	29.0	35.0	. .	. .	55 13.40	−12.82	. .	+21.09	19 55 22.67	+ 3.95
	33	C Præsepe . . .	T.	.	41.1	43.9	45.4	52.1	54.1	56.3	2.8	4.5	7.3	29 54.17	− 0.22	. .	+21.10	8 30 15.05	+ 4.40
	34	K Præsepe . . .	T.	.	50.5	53.3	54.9	1.5	3.6	5.7	12.3	13.9	16.5	32 3.58	− 0.22	. .	+21.10	8 32 24.46	+ 4.42
	35	ι Ursæ Majoris, (R.)	T.	.	33.1	36.6	38.9	48.1	51.0	54.3	3.5	6.1	9.6	49 51.24	+ 0.04	. .	+21.11	8 50 12.39	+ 0.27
	36	κ Cancri	T.	.	4.5	7.2	8.6	15.0	17.1	19.1	25.5	27.0	29.6	0 17.07	− 0.27	+21.15	+21.11	9 0 37.91	− 0.04
17	37	Polaris, S. P. . .	T.	.	. .	. .	36.0	10.0	48.0	57.0	10.0	7.0	23.0	11 46.76	−12.45	. .	+22.80	1 11 57.11	+ 6.95
	38	α Virginis . . .	T.	.	41.0	43.5	44.9	51.2	53.4	55.3	1.6	3.3	5.7	17 53.32	− 0.54	+22.81	+22.80	13 18 15.58	0.00
	39	α Bootis	T.	.	3.4	6.1	7.6	14.2	16.4	18.4	25.0	26.6	29.3	9 16.33	− 0.33	+22.79	+22.82	14 9 38.82	+ 0.04
18	40	Sun I, S. . . .	T.	3	46.9	49.7	51.3	57.8	0.1	2.3	8.7	10.3	12.9	36 0.00	− 0.61	. .	+22.85	15 36 22.24	. .
	41	Sun II, N. . . .	T.	3	5.3	7.6	9.2	15.9	18.0	20.2	26.8	28.4	31.2	38 18.07	− 0.61	. .	+22.85	15 38 40.31	. .
	42	α Ophiuchi . . .	T.	.	14.0	16.6	18.0	24.4	26.6	28.6	34.9	36.5	39.0	28 26.51	− 0.38	+22.83	+22.88	17 28 49.01	+ 0.06
	43	δ Ursæ Minoris . .	T.	.	31.5	14.0	39.0	48.0	24.0	58.0	32.0	7.0	. .	13 57.84	+ 4.58	. .	+22.90	18 14 25.32	+ 0.46
	44	α Lyræ	T.	.	49.7	53.0	54.9	2.8	5.5	8.1	15.9	17.8	21.1	32 5.42	− 0.18	+22.94	+22.91	18 32 28.15	+ 0.03
	45	Moon I, S. . .	T.	3	57.0	59.8	1.3	8.1	10.3	12.6	19.3	21.0	23.7	21 10.34	− 0.62	. .	+22.92	19 21 32.64	+66.23
	46	Jupiter I, S. . .	T.	.	12.0	14.7	16.2	. .	. .	. .	32.7	34.2	36.7	18 24.42	− 0.46	. .	+23.02	0 18 46.98	. .
	47	Jupiter II, N. . .	T.	.	. .	. .	23.4	25.5	27.5	29.4	31.6	. .	. .	18 27.49	− 0.46	. .	+23.02	0 18 50.05	. .
	48	κ Draconis, S. P. .	T.	.	2.9	55.1	50.7	32.0	25.9	20.1	1.5	57.0	49.0	27 26.02	− 1.16	. .	+23.02	12 27 47.88	− 0.04
	49	α Cassiopeæ . . .	T.	.	21.4	26.1	28.5	39.5	43.4	46.9	57.8	0.5	5.1	32 43.24	+ 0.03	. .	+23.02	0 33 6.29	− 0.03

8.11.42. Seem one rev. wrong.
8.45.48. Bisections at sets B and D.
17. Doubtful which wires were used for bisection.
30. Wire A used.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	33 6	11.7	7.7	3.4	5.0	28	150	200	. .	980	950	13.7	33 8 48.1	. .	+ 39.6	84 15 48.9	−18.0
2	351 28	9.5	6.2	2.7	3.8	23	550	610	. .	600	630	13.7	351 31 58.5	. .	− 9.1	42 38 10.6	+ 0.9
3	15 8	5.5	2.5	28.5	29.5	25	. .	135	. .	112	. .	13.7	15 11 38.8	740	+ 16.5	66 18 16.5	+ 2.5
4	359 48	10.0	4.6	4.5	6.3	23	. .	360	. .	200	. .	13.5	359 52 2.0	730	− 0.1	50 58 23.1	+ 2.5
5																	
6	18 58	10.6	8.1	5.6	8.0	26	. .	703	. .	622	. .	13.5	19 1 8.4	. .	+ 20.6	70 7 50.2	0.0
7	50 16	10.5	6.6	3.5	4.6	26	. .	. .	. .	150	180	13.5	50 19 16.6	668	+ 1 11.8	101 26 49.6	− 8.5
8	324 8	6.6	3.7	2.6	5.6	19	. .	422	. .	262	. .	13.5	324 13 3.8	640	− 42.7	15 18 42.3	+15.9
9	57 30	5.3	2.0	29.0	1.5	19	764	629	. .	. .	. .	13.5	57 35 2.0	. .	+ 1 32.5	108 42 55.7	− 7.5
10	56 58	6.2	2.9	0.1	2.1	20	. .	. .	. .	863	862	13.5	57 2 40.6	610	+ 1 30.6	108 10 32.4	− 7.5
11	26 10	15.0	10.4	6.1	9.5	26	. .	482	. .	. .	. .	13.5	26 13 9.8	558	+ 28.6	77 19 59.6	−17.0
12	47 6	10 8.7	5.5	2.0	2.6	26	. .	740	. .	610	. .	12.3	47 9 10.2	631	+ 1 3.7	98 16 35.1	− 1.3
13	38 0	10 8.3	4.1	0.8	2.2	30	. .	. .	. .	. .	365	12.3	38 2 13.4	639	+ 46.4	89 9 21.0	−19.7
14	155 30	8.2	5.5	2.6	2.3	23	. .	042	. .	. .	928	12.3	155 34 6.7	670	− 27.1	75 32 41.6	+ 1.5
15	38 22	10.8	6.8	3.3	5.1	23	310	398	. .	. .	. .	12.3	38 26 0.3	. .	+ 47.4	81 33 8.9	− 1.3
16	38 22	10.8	6.8	3.3	5.1	20	. .	. .	. .	108	051	12.3	38 26 48.2	. .	+ 47.4	89 33 56.8	− 1.3
17	289 24	6.3	4.5	2.3	4.6	27	. .	210	. .	234	. .	12.3	289 27 2.4	. .	− 2 48.1	340 30 35.1	+ 2.1
18	343 2	6.7	4.0	0.4	3.0	28	. .	558	. .	377	. .	12.3	343 5 44.5	683	− 18.2	34 11 47.5	+ 0.6
19	33 36	10.7	7.5	3.1	5.4	29	288	321	. .	130	160	12.3	33 38 29.3	. .	+ 39.9	84 45 30.4	−22.4
20	34 28	14.2	10.6	4.8	9.3	25	. .	000	. .	135	. .	12.3	34 31 29.9	. .	+ 41.2	85 38 32.3	− 0.2
21	33 52	12.5	9.0	3.8	7.0	24	. .	550	. .	568	. .	12.3	33 55 39.3	. .	+ 40.3	85 2 40.8	−22.5
22																	
23																	
24	155 44	3.8	1.0	26.5	29.6	27	. .	958	. .	930	. .	12.3	155 46 55.3	690	− 27.0	75 19 52.9	+ 1.2
25	30 20	8.1	5.5	0.6	4.6	26	. .	254	. .	160	. .	12.3	30 23 17.5	. .	+ 35.2	81 30 13.9	+ 0.7
26	16 0	7.5	3.3	29.3	3.6	27	. .	970	. .	924	. .	12.3	16 2 52.2	. .	+ 17.3	67 9 30.7	− 1.1
27	30 36	11.6	7.7	2.8	7.0	26	. .	170	. .	170	. .	12.3	30 39 15.5	698	+ 35.6	81 46 12.3	− 0.6
28	332 2	9.5	6.8	4.4	6.6	24	. .	. .	912	998	. .	12.3	332 5 34.4	. .	− 31.8	23 11 23.8	+ 1.2
29	295 8	9.7	6.8	5.0	7.6	21	. .	. .	075	. .	. .	12.3	295 12 33.3	. .	− 2 7.1	346 16 47.4	+ 1.4
30	32 34	9.8	6.5	1.6	5.3	33	. .	344	. .	631	. .	12.3	32 37 59.0	700	+ 38.5	83 42 58.7	− 2.0
31	351 28	8.0	5.0	1.1	5.4	23	. .	648	. .	483	. .	12.3	351 31 58.0	703	− 9.0	42 38 10.2	+ 0.7
32	307 46	13.4	9.8	5.5	8.7	22	378	508	442	426	333	12.3	307 50 10.5	721	− 1 17.7	358 55 14.0	− 1.6
33	19 6	13.2	10.3	5.4	9.0	23	. .	080	. .	. .	. .	12.3	19 10 1.4	. .	+ 21.0	70 16 43.6	+ 9.1
34	18 48	10.8	7.4	3.5	6.4	21	. .	080	. .	969	. .	12.3	18 52 34.4	. .	+ 20.7	69 59 16.3	+ 9.2
35	189 36	11.2	10.4	5.8	7.0	26	. .	214	. .	968	. .	12.3	189 39 15.0	723	+ 10.3	41 26 55.9	− 2.3
36	27 38	10.5	6.8	2.4	5.6	25	. .	236	. .	290	. .	12.3	27 41 30.3	723	+ 31.7	78 45 23.2	+ 1.0
37	307 28	9.2	7.8	5.5	8.2	24	. .	628	668	740	. .	11.6	307 31 37.1	590	− 1 16.2	358 36 42.1	− 1.4
38	49 18	14.0	10.1	6.6	8.5	27	. .	. .	. .	620	628	11.6	49 20 48.8	589	+ 1 8.1	100 28 18.1	− 1.6
39	18 58	12.4	9.2	6.2	7.2	26	. .	440	. .	301	. .	11.6	19 1 10.3	585	+ 20.2	70 7 51.7	+ 0.5
40	58 30	8.5	3.8	1.4	1.5	23	366	358	. .	. .	. .	11.6	58 34 2.3	. .	+ 1 34.6	109 41 58.1	− 7.6
41	57 58	5.0	1.6	27.5	28.4	25	. .	. .	. .	200	141	11.6	58 1 35.2	544	+ 1 32.6	109 9 29.0	− 7.6
42	26 10	12.6	9.2	5.4	7.6	26	. .	334	. .	193	. .	11.6	26 13 12.0	544	+ 28.5	77 20 1.7	−15.5
43	312 14	4.3	2.4	0.6	2.0	23	330	431	382	430	370	11.6	312 18 2.3	543	− 1 3.6	3 23 19.9	− 2.6
44	0 10	10.0	6.3	4.3	5.8	25	. .	136	. .	042	. .	11.6	0 13 32.2	. .	+ 0.2	51 19 53.6	− 0.5
45	59 18	12.5	9.1	5.1	6.8	23	. .	224	210	216	. .	11.6	59 21 58.8	554	+ 1 37.8	110 29 57.8	
46	38 26	11.4	8.2	4.4	5.9	24	310	190	. .	. .	. .	11.1	38 29 44.4	. .	+ 47.1	89 36 52.7	− 1.3
47	38 26	11.4	8.2	4.4	5.9	27	. .	. .	. .	190	071	11.1	38 28 58.3	641	+ 47.1	89 36 6.6	− 1.3
48	289 24	5.5	3.6	0.6	4.3	27	. .	332	. .	310	. .	11.1	289 27 0.6	. .	− 2 46.5	340 30 35.3	+ 3.6
49	343 2	10.4	7.5	4.3	6.1	28	. .	. .	339	. .	. .	11.1	343 4 41.2	. .	− 18.0	34 10 44.4	− 1.8

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
45	− 47 17.4	− 15 3.0

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.									CORRECTIONS.				Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Nov. 18	1	Neptune	T.	.	49.0	51.6	53.0	59.3	1.1	3.0	9.4	11.1	13.4	57 1.21	− 0.44	. .	+23.03	0 57 23.80	. .
	2	ε Piscium	T.	.	. .	10.5	12.6	14.8	16.7	18.8	22.9	24.4	27.0	1 14.68	− 0.44	. .	+23.03	1 1 37.27	+ 3.22
	3	Polaris	T.	.	. .	. .	35.0	56.0	22.0	45.0	11.0	. .	. .	11 21.92	+11.71	. .	+23.04	1 11 56.67	+ 6.75
	4	η Piscium, (R.)	T.	.	53.1	55.7	57.3	3.7	5.9	8.1	14.4	15.8	18.7	24 5.86	− 0.30	. .	+23.04	1 24 28.60	+ 0.03
	5	ο Piscium	T.	.	53.8	56.4	57.9	4.2	6.1	8.1	14.3	16.0	18.3	38 6.12	− 0.42	+23.04	+23.05	1 38 28.75	− 0.03
	6	β Arietis, (R.)	T.	3	48.7	51.3	53.0	59.5	1.8	3.9	10.4	12.0	14.8	47 1.71	− 0.25	. .	+23.05	1 47 24.51	− 0.10
	7	α Arietis	T.	.	11.8	14.5	16.1	23.1	25.2	27.3	33.9	35.6	38.4	59 25.10	− 0.31	+23.03	+23.05	1 59 47.84	+ 0.03
	8	ξ^1 Ceti	T.	.	28.7	31.3	32.7	39.0	41.0	43.1	49.2	50.7	53.4	5 41.01	− 0.42	+23.04	+23.05	2 6 3.64	+ 0.04
	9	Anonymous	T.	.	13.5	16.3	18.2	24.6	26.7	29.2	35.9	37.7	40.6	15 26.97	− 0.29	. .	+23.06	2 15 49.74	+ 3.14
	10	5 Ursæ Min., S. P.	T.	.	14.3	3.1	56.2	30.5	21.8	13.0	47.0	41.2	30.4	27 21.94	− 1.57	. .	+23.06	14 27 43.43	+ 0.11
	11	Undina	T.	.	44.3	46.7	48.5	54.6	56.7	58.5	4.9	6.5	9.1	3 56.64	− 0.45	. .	+23.08	2 4 19.27	. .
	12	α Persei	T.	.	18.4	22.0	24.3	33.7	37.0	39.9	49.7	51.8	55.8	14 36.96	− 0.06	. .	+23.08	3 14 59.98	+ 0.22
	13	W. III, 400	T.	.	13.4	16.0	17.5	23.5	25.6	27.5	33.6	35.3	37.9	23 25.59	− 0.43	. .	+23.08	3 23 48.24	+ 2.96
	14	δ Persei	T.	.	56.3	59.9	1.7	11.2	14.4	17.4	26.4	28.5	32.2	33 14.22	− 0.09	. .	+23.09	3 33 37.22	+ 0.14
	15	η Tauri	T.	.	6.3	9.0	10.5	17.4	19.5	21.8	28.4	30.0	32.9	39 19.53	− 0.31	+23.12	+23.09	3 39 42.31	− 0.02
	16	λ Ursæ Minoris, S.P.	T.	.	. .	. .	. .	50.0	5.0	16.0	31.0	. .	. .	55 4.22	−15.88	. .	+23.17	19 55 11.51	− 1.92
	17	15 Argus	T.	.	22.0	24.8	26.4	33.0	35.2	37.2	44.3	46.1	48.6	1 35.29	− 0.65	+23.22	+23.17	8 1 57.81	− 0.07
	18	C Præsepe	T.	.	39.2	42.2	43.6	50.2	52.2	54.2	0.9	2.5	4.9	29 52.21	− 0.33	. .	+23.18	8 30 15.06	+ 4.27
	19	K Præsepe	T.	.	. .	57.3	59.5	1.5	3.8	6.0	10.2	11.9	14.7	32 1.62	− 0.33	. .	+23.18	8 32 24.47	+ 4.29
	20	ι Ursæ Majoris, (R.)	T.	.	30.9	34.5	36.4	46.2	49.2	52.3	1.7	4.0	7.7	49 49.21	+ 0.05	. .	+23.19	8 50 12.45	+ 0.16
	21	κ Cancri	T.	.	2.8	5.5	7.0	13.3	15.4	17.4	23.6	25.2	27.8	0 15.33	− 0.40	+23.15	+23.19	9 0 38.12	+ 0.04
	22	α Cephei, S. P.	T.	.	30.6	25.0	22.1	8.7	4.4	59.9	47.0	43.5	38.3	15 4.39	− 0.91	. .	+23.20	21 15 26.68	− 0.05
	23	*d* Ursæ Majoris	T.	.	49.3	56.2	0.6	19.3	25.5	31.5	50.0	54.4	2.1	22 25.43	+ 0.46	. .	+23.20	9 22 49.09	+ 0.56
	24	Polaris, S. P.	N.	2	. .	. .	26.0	3.0	37.5	17.0	50.0	. .	. .	11 38.38	−13.52	. .	+23.34	1 11 48.20	− 1.44
19	25	Sun I, S.	N.	.	56.8	59.6	1.2	7.9	10.0	11.8	18.6	20.6	22.8	40 9.92	− 0.59	. .	+23.39	15 40 32.72	. .
	26	Sun II, N.	N.	.	15.0	17.8	19.3	25.8	27.9	30.0	36.6	38.3	41.0	42 27.97	− 0.59	. .	+23.39	15 42 50.77	. .
	27	Moon I, S.	N.	4.2	46.6	49.3	50.9	57.7	59.9	2.0	8.7	10.3	13.0	13 59.82	− 0.59	. .	+23.48	20 14 22.71	+65.10
	28	ε Delphini	N.	5	20.2	22.7	24.2	30.5	32.6	34.7	40.9	42.5	45.0	26 32.59	− 0.37	+23.52	+23.49	20 26 55.71	− 0.02
	29	Anonymous	H.	3	20.0	22.5	24.2	30.2	32.3	34.3	40.4	42.0	44.4	2 32.26	− 0.44	. .	+23.59	23 2 55.41	+ 3.80
	30	γ Pegasi, (R.)	N.	2	56.1	57.4	1.9	3.8	6.0	8.1	10.2	14.2	16.1	6 6.00	− 0.28	. .	+23.56	0 6 29.28	+ 0.01
	31	Jupiter I, S.	N.	3	. .	. .	12.1	14.1	16.1	18.2	20.3	. .	. .	18 16.17	− 0.44	. .	+23.56	0 18 39.29	. .
	32	Jupiter II, N.	N.	3	6.9	9.4	11.0	. .	. .	. .	27.3	28.9	31.4	18 19.15	− 0.44	. .	+23.56	0 18 42.27	. .
	33	κ Draconis, S. P.	N.	3	2.7	54.8	50.7	32.0	25.5	19.7	1.4	56.8	49.2	27 25.87	− 1.23	. .	+23.57	12 27 48.21	+ 0.24
	34	α Cassiopeæ, (R.)	N.	3	. .	. .	. .	42.5	46.0	49.7	56.8	59.8	4.2	32 42.45	+ 0.19	. .	+23.57	0 33 6.21	− 0.09
	35	β Ceti	N.	4	34.5	37.2	38.8	35.3	37.5	39.7	46.0	47.7	50.4	36 37.46	− 0.58	+23.53	+23.57	0 37 0.45	+ 0.07
	36	Polaris	N.	3	47.0	34.5	32.5	. .	13.0	. .	. .	. .	. .	11 11.95	+12.80	. .	+23.58	1 11 48.33	− 1.03
	37	ο Piscium	N.	3	53.1	55.6	57.1	3.6	5.6	7.5	13.9	15.4	17.8	38 5.51	− 0.39	+23.62	+23.59	1 38 28.71	− 0.07
	38	β Arietis, (R.)	N.	2.4	48.2	51.0	52.4	59.0	1.2	3.5	10.0	11.5	14.3	47 1.23	− 0.24	. .	+23.59	1 47 24.58	− 0.03
	39	α Arietis, (R.)	N.	3	11.2	14.0	15.4	22.1	24.4	26.6	33.2	35.0	37.7	59 24.40	− 0.22	. .	+23.60	1 59 47.78	− 0.03
	40	ξ^1 Ceti	N.	3	28.0	30.6	32.1	38.3	40.5	42.5	48.7	50.3	52.8	5 40.42	− 0.38	+23.59	+23.60	2 6 3.64	+ 0.04
20	41	Polaris, S. P.	T.	.	. .	. .	35.0	13.0	48.0	24.0	59.0	. .	. .	11 47.48	−19.20	. .	+24.27	1 11 52.55	+ 4.07
	42	α Virginis	T.	.	. .	. .	. .	52.1	54.0	56.2	0.3	1.9	4.4	17 52.03	− 0.69	+24.32	+24.27	13 18 15.61	− 0.04
21	43	Moon I, S.	T.	3	55.0	57.7	59.2	5.7	7.8	9.9	16.4	18.1	20.7	54 7.83	− 0.73	. .	+24.41	21 54 31.51	+62.90
	44	α Aquarii	T.	.	26.0	28.6	30.1	36.2	38.3	40.3	46.5	48.0	50.7	58 38.30	− 0.60	+24.41	+24.45	21 59 2.15	+ 0.03
	45	Polaris	T.	.	46.0	32.0	31.0	. .	. .	. .	. .	. .	. .	11 10.33	+18.22	. .	+24.51	1 11 53.06	+ 4.89
22	46	Polaris, S. P.	N.	3	. .	. .	33.0	9.5	45.0	22.0	56.5	. .	. .	11 42.88	−19.95	. .	+25.28	1 11 48.21	+ 0.98
	47	ζ Virginis	N.	4	. .	30.3	32.3	34.4	36.4	38.4	42.5	44.2	46.6	27 34.38	− 0.56	+25.29	+25.29	13 27 59.11	0.00
	48	η Bootis	N.	3	. .	55.3	57.5	59.6	1.8	3.9	8.3	9.9	12.6	47 59.64	− 0.37	+25.28	+25.30	13 48 24.57	− 0.01
	49	Mercury II, S.	N.	4	51.6	54.2	55.7	2.1	4.3	6.3	12.6	14.2	16.7	41 4.19	− 0.70	. .	+25.31	14 41 28.80	− 0.22
	50	Mercury, N. C.	N.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .

1.11. Wire A used.
10.27.33.43. Bisections at sets B and D.
9. Reduced on the supposition that the micrometer reading was five revs. too great.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′	″
1	34 28	13.1	10.0	4.5	8.8	28	. .	. .	. .	474	418	11.1	34 23 11.0	. .	+ 40.6	85 30 12.8	− 0.2
2	33 52	12.8	9.5	3.5	6.6	24	. .	. .	. .	194	280	11.1	33 55 43.0	. .	+ 39.9	85 2 44.1	−22.7
3	310 14	7.4	5.0	2.4	4.4	23	136	090	075	082	002	11.1	310 18 4.2	648	− 1 10.0	1 23 15.4	− 0.9
4	155 44	9.3	6.8	1.8	3.7	27	. .	542	. .	530	. .	11.1	155 46 55.1	. .	− 26.7	75 20 52.8	+ 1.1
5	30 20	7.7	5.2	0.0	2.6	26	. .	403	. .	290	. .	11.1	30 23 15.0	. .	+ 34.9	81 30 11.1	− 2.2
6	161 14	3.1	1.4	27.1	28.5	29	. .	050	. .	970	. .	11.1	161 16 37.9	. .	− 20.2	69 56 3.5	+ 1.0
7	16 0	7.1	4.3	0.3	1.8	27	. .	700	. .	633	. .	11.1	16 2 55.4	. .	+ 17.1	67 9 33.7	+ 2.2
8	30 36	13.5	10.5	5.6	8.1	25	. .	830	. .	798	. .	11.1	30 39 17.6	663	+ 35.3	81 46 14.1	+ 1.1
9	13 34	7.0	5.3	0.5	2.4	24	. .	264	. .	068	. .	11.1	13 39 4.8	. .	+ 14.5	64 45 40.5	−19.2
10	295 8	9.2	6.5	4.6	7.0	21	. .	190	. .	180	. .	11.1	295 12 30.5	667	− 2 6.1	346 16 45.6	+ 1.0
11	33 38	11.5	8.7	3.0	7.1	23	. .	820	. .	682	. .	11.1	33 44 25.1	. .	+ 39.9	84 51 26.2	− 2.3
12	349 26	11.3	7.4	4.8	6.8	21	. .	628	. .	450	. .	11.1	349 30 25.1	. .	− 11.1	40 36 35.2	+ 2.5
13	33 4	13.4	9.7	4.4	8.2	20	. .	170	. .	079	. .	11.1	33 8 45.0	. .	+ 39.0	84 15 45.2	−18.3
14	351 28	12.5	9.2	5.8	8.2	23	. .	274	. .	244	. .	11.1	351 31 57.4	. .	− 9.0	42 38 9.6	+ 0.9
15	15 8	14.6	11.0	7.4	10.0	24	. .	626	. .	580	. .	11.1	15 11 34.9	674	+ 16.2	66 18 12.3	− 1.5
16	307 46	7.7	5.4	2.5	4.5	22	609	684	714	708	528	11.1	307 50 10.1	707	− 1 17.4	358 55 13.9	− 1.4
17	62 44	9.4	6.4	1.5	5.6	26	. .	228	. .	038	. .	11.1	62 47 16.2	. .	+ 1 56.7	113 55 34.1	+ 0.4
18	19 6	10.8	7.7	3.4	6.6	22	. .	590	. .	058	. .	11.1	19 10 5.7	. .	+ 20.9	70 16 47.8	+ 8.6
19	18 48	11.4	7.4	3.5	6.4	20	. .	864	. .	802	. .	11.1	18 52 36.0	. .	+ 20.6	69 59 17.8	+ 8.7
20	189 36	9.6	9.0	5.0	5.3	26	. .	188	. .	110	. .	11.1	189 39 14.3	. .	+ 10.2	41 26 56.7	− 1.8
21	27 38	8.0	4.7	0.0	3.4	25	. .	430	. .	274	. .	11.1	27 41 30.0	. .	+ 31.6	78 48 22.8	0.0
22	280 58	2.6	0.4	27.9	1.0	28	. .	144	. .	860	. .	11.1	281 0 52.4	. .	− 5 1.2	332 2 12.4	+ 2.7
23	328 26	2.0	28.5	28.0	28.6	22	. .	528	. .	476	. .	11.1	328 30 19.2	717	− 36.9	19 36 3.5	+ 0.2
24	307 28	0.2	27.9	26.5	28.2	25	211	221	225	262	221	11.7	307 31 38.1	667	− 1 17.6	358 36 41.7	− 2.2
25	58 44	3.2	0.0	27.0	29.6	24	272	358	. .	. .	. .	11.7	58 47 51.7	. .	+ 1 36.0	109 55 48.9	− 7.6
26	58 12	4.4	1.3	28.4	1.1	25	. .	. .	. .	612	622	11.7	58 15 27.8	570	+ 1 34.0	109 23 23.0	− 7.6
27	57 59.5	11 3.5	0.5	25.5	28.7	25	370	429	. .	521	508	11.7	58 2 53.4	554	+ 1 32.9	109 10 47.5	
28	27 58	10 2.1	27.6	24.6	28.1	26	385	311	. .	230	180	11.7	28 1 22.5	. .	+ 30.9	79 8 14.6	− 1.2
29	38 0	2.5	28.4	25.4	26.5	30	. .	607	. .	513	. .	11.7	38 2 16.7	611	+ 46.0	89 9 23.9	−20.0
30	155 30	4.1	0.7	27.0	27.5	23	. .	300	. .	105	100	11.7	155 34 7.7	629	− 26.9	75 32 40.4	+ 0.3
31	38 26	5.5	1.1	27.9	29.5	22	754	731	. .	. .	. .	11.7	38 30 14.6	. .	+ 47.0	89 37 22.8	− 1.3
32	38 26	5.5	1.1	27.9	29.5	25	. .	. .	. .	520	429	11.7	38 29 30.7	. .	+ 47.0	89 36 38.9	− 1.3
33	289 24	1.2	29.8	27.0	29.1	27	900	878	. .	745	754	11.7	289 36 57.4	. .	− 2 45.9	340 30 32.7	+ 1.3
34	196 52	4.5	4.8	0.2	0.1	26	. .	. .	250	169	072	11.7	196 55 18.6	. .	+ 18.0	34 10 44.6	− 1.4
35	57 32	6.5	3.2	28.4	1.6	28	. .	. .	905	. .	. .	11.7	57 34 37.8	628	+ 1 32.9	108 42 31.9	− 0.1
36																	
37	30 20	7.8	3.9	29.4	2.4	26	400	315	. .	154	174	11.7	30 23 17.4	630	+ 34.7	81 30 13.3	0.0
38	161 14	5.5	3.5	29.4	29.7	28	. .	. .	800	. .	. .	11.7	161 16 39.8	. .	− 20.0	69 50 1.4	− 1.0
39	163 54	8.5	6.2	2.1	2.7	26	915	894	. .	774	770	11.7	163 57 6.8	. .	− 17.0	67 9 31.4	− 0.1
40	30 36	9.8	5.5	1.2	3.9	26	. .	. .	224	. .	. .	11.7	30 40 16.2	633	+ 35.1	81 47 12.5	− 0.5
41	307 28	4.6	1.7	29.0	3.8	24	820	830	890	838	788	11.2	307 31 39.6	664	− 1 17.5	358 36 43.3	− 1.2
42																	
43	52 58	17.9	14.5	10.1	11.3	23	. .	635	920	942	. .	11.2	53 1 44.1	663	+ 1 19.1	104 9 24.4	
44	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . . . .	663			
45																	
46	307 28	1.3	27.8	26.8	29.6	25	090	060	108	063	096	13.5	307 31 41.5	718	− 1 18.5	358 36 44.2	− 1.0
47	38 44	2.3	27.0	25.3	27.6	23	. .	. .	. .	350	392	13.5	38 48 6.9	. .	+ 48.5	89 55 16.6	− 0.7
48	19 46	10.1	6.3	4.2	6.0	24	. .	223	. .	112	. .	13.5	19 49 48.0	698	+ 21.7	70 56 30.9	− 0.2
49	52 6	7.5	3.8	1.0	3.4	21	462	. .	. .	. .	238	13.5	52 10 33.5	. .	+ 1 17.1	103 18 11.8	− 6.6
50	52 6	7.5	3.8	1.0	3.4	21	. .	841	. .	715	. .	13.5	52 10 27.1	688	+ 1 17.1	103 18 5.4	− 6.6

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
27	− 46 14.6	− 14 55.6
43	− 43 11.5	− 14 48.7

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Nov. 23	1	Sun I, N.	N.	2	44.7	47.3	48.7	55.4	57.6	0.0	6.2	8.0	10.8	56 57.63	− 0.78	. .	+25.34	15 57 22.19	. .
	2	Sun II, S.	N.	2	. .	. .	14.6	16.8	19.0	21.1	25.6	27.2	29.9	59 16.80	− 0.78	. .	+25.34	15 59 41.36	. .
	3	α Lyræ	N.	4	. .	57.6	0.2	2.9	5.4	8.0	13.3	15.3	18.5	32 2.83	− 0.13	+25.42	+25.39	18 32 28.09	− 0.03
	4	Anonymous	F.	2.4	46.3	50.8	54.1	56.1	. .	. .	2.2	. .	10.7	7 58.39	− 0.55	. .	+25.43	23 8 23.27	+ 3.81
	5	Moon I, S.	N.	2.1	55.3	56.8	1.0	3.2	5.0	7.3	9.4	13.6	15.0	29 5.18	− 0.63	. .	+25.48	23 29 30.03	+61.85
	6	Jupiter I, S.	N.	1	38.7	41.3	42.6	. .	. .	. .	59.2	0.7	3.2	17 50.95	− 0.56	. .	+25.50	0 18 15.89	. .
	7	Jupiter II, N.	N.	2	. .	. .	50.0	52.1	54.2	56.0	58.2	. .	. .	17 54.10	− 0.56	. .	+25.50	0 18 19.04	. .
	8	α Cassiopeæ	N.	2	18.8	23.4	26.1	36.8	40.8	44.3	55.1	58.0	2.3	32 40.62	+ 0.21	. .	+25.51	0 33 6.34	+ 0.12
	9	ε Piscium	N.	2	31.2	33.9	35.5	41.6	43.7	45.6	51.8	53.3	55.8	55 43.60	− 0.49	+25.51	+25.51	0 56 8.62	− 0.05
	10	Neptune	N.	2	. .	34.6	36.5	38.6	40.6	42.7	46.7	48.3	51.0	56 38.61	− 0.52	. .	+25.51	0 57 3.60	. .
	11	ε Piscium	N.	2	0.1	2.5	4.1	10.3	12.3	14.4	20.4	21.9	24.5	1 12.28	− 0.51	. .	+25.52	1 1 37.29	+ 3.25
	12	Polaris	F.	.	. .	25.0	22.0	. .	. .	. .	40.0	. .	29.0	11 2.72	+19.01	. .	+25.52	1 11 46.75	− 0.18
	13	Polaris	N.	2	. .	. .	14.0	40.0	4.0	26.0	54.0	. .	. .	11 3.92	+19.01	. .	+25.52	1 11 48.45	+ 1.52
	14	ο Piscium	F.	.	51.5	54.0	55.5	1.7	3.7	5.8	12.0	13.6	16.1	38 3.77	− 0.48	+25.44	+25.49	1 38 28.78	+ 0.01
	15	ι Cassiopeæ	F.	.	. .	. .	44.2	49.0	55.0	59.7	5.1	. .	. .	17 54.60	+ 0.63	. .	+25.51	2 18 20.74	+ 0.14
	16	5 Ursæ Minoris, S. P.	F.	.	. .	. .	37.3	28.1	19.7	11.0	3.2	. .	. .	27 19.86	− 2.38	. .	+25.51	14 27 42.99	− 0.48
	17	β Ursæ Minoris, S. P.	F.	.	10.6	24.2	52.9	44.7	. .	. .	. .	. .	. .	50 37.48	− 2.22	. .	+25.52	14 51 0.78	− 0.13
	18	48 Cephei	F.	.	. .	. .	7.4	16.2	25.7	34.9	43.9	. .	. .	3 25.62	+ 1.69	. .	+25.52	3 3 52.83	+ 0.17
	19	α Persei	F.	.	15.6	19.1	21.5	30.4	34.3	37.4	46.7	49.1	53.0	14 34.17	+ 0.06	. .	+25.53	3 14 59.76	− 0.04
	20	γ² Ursæ Minoris, S. P.	F.	.	. .	. .	41.8	34.7	27.9	22.1	. .	. .	. .	20 28.25	− 1.93	. .	+25.53	15 20 51.85	− 0.30
	21	α Persei	F.	.	53.7	57.4	59.5	8.7	11.6	14.5	23.7	26.1	29.8	33 11.67	+ 0.02	. .	+25.53	3 33 37.22	+ 0.09
	22	η Tauri	F.	.	3.9	6.5	8.2	15.0	17.3	19.4	26.1	27.8	30.3	39 17.17	− 0.32	+25.54	+25.54	3 39 42.39	+ 0.01
	23	λ Ursæ Minoris, S. P.	F.	3	. .	. .	34.0	47.0	1.0	16.0	28.0	. .	. .	55 0.78	−25.47	. .	+25.63	19 55 0.94	− 6.36
	24	D Præsepe	F.	3	. .	3.9	6.6	8.6	10.5	13.1	17.0	18.8	21.4	31 8.49	− 0.36	. .	+25.65	8 31 33.78	+ 4.13
	25	G Præsepe	F.	3	. .	3.8	6.0	8.1	10.3	12.6	16.8	18.5	21.2	32 8.15	− 0.35	. .	+25.65	8 32 33.45	+ 4.14
	26	κ Cancri	F.	.	0.6	2.9	4.6	10.9	13.0	15.0	21.5	23.0	25.5	0 13.00	− 0.45	+25.69	+25.66	9 0 38.21	− 0.03
	27	α Cephei, S. P.	F.	.	29.1	23.5	20.5	11.3	7.0	2.2	. .	. .	. .	15 2.75	− 1.34	. .	+25.66	21 15 27.07	+ 0.55
	28	d Ursæ Majoris	F.	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
24	29	α Pegasi	H.	3	36.2	38.9	40.4	46.8	49.0	51.0	57.2	58.6	1.4	57 48.83	− 0.37	+25.08	+25.09	22 58 13.55	+ 0.02
	30	Anonymous	H.	2	46.3	48.8	50.5	56.7	58.7	0.6	6.9	8.3	11.0	7 58.64	− 0.47	. .	+25.09	23 8 23.26	+ 3.82
	31	θ Piscium	H.	3	41.8	44.3	45.8	52.1	54.0	56.1	2.4	3.9	6.3	20 54.08	− 0.44	+25.14	+25.10	23 21 18.74	+ 0.01
	32	Anonymous	H.	2	. .	52.9	55.0	57.3	59.4	1.5	5.6	7.0	9.7	43 57.25	− 0.44	. .	+25.13	0 44 21.94	+ 3.31
	33	Anonymous	H.	2	19.8	22.4	23.8	29.9	31.8	33.7	40.2	41.5	44.1	56 31.91	− 0.47	. .	+25.14	0 56 56.58	+ 3.28
	34	Polaris	H.	2	. .	. .	19.0	42.0	9.0	32.0	56.0	. .	. .	11 7.92	+12.60	. .	+25.14	1 11 45.66	− 0.70
	35	ο Piscium	H.	2	51.6	54.1	55.6	2.0	4.0	6.0	12.2	13.8	16.5	38 3.98	− 0.42	+25.16	+25.15	1 38 28.71	− 0.05
	36	β Arietis	H.	2	46.7	49.4	51.0	57.6	59.8	2.0	8.4	10.0	12.9	46 59.76	− 0.33	+25.17	+25.15	1 47 24.58	− 0.01
	37	Anonymous	H.	2	11.2	13.9	15.8	22.6	24.7	27.0	33.6	35.4	38.2	15 24.71	− 0.29	. .	+25.15	2 15 49.57	+ 3.13
	38	Weisse III, 145	H.	2	59.0	1.5	3.2	9.4	11.4	13.4	19.8	21.2	23.8	9 11.41	− 0.44	. .	+25.18	3 9 36.15	+ 2.93
	39	Anonymous	H.	2	23.4	25.9	27.4	33.8	35.6	37.7	44.0	45.3	47.9	14 35.67	− 0.44	. .	+25.18	3 15 0.41	+ 2.93
	40	γ¹ Eridani	H.	2	18.3	20.9	22.5	28.9	30.9	33.0	39.2	40.9	43.6	51 30.91	− 0.58	+25.13	+25.20	3 51 55.53	+ 0.10
	41	ε Tauri	H.	2	20.6	23.4	25.0	31.5	33.5	35.6	42.2	43.8	46.5	20 33.57	− 0.34	+25.23	+25.21	4 20 58.44	− 0.02
	42	Anonymous	H.	2	13.3	16.4	18.0	24.5	26.7	29.0	35.7	37.3	40.1	29 26.78	− 0.30	. .	+25.21	4 29 51.69	+ 3.30
26	43	Moon, S.	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	44	ι Cassiopeæ	F.	3	. .	. .	. .	53.0	57.6	3.2	13.6	17.4	23.8	17 52.81	+ 0.35	. .	+26.98	2 18 20.14	− 0.39
	45	5 Ursæ Minoris, S. P.	F.	.	10.6	59.7	54.7	36.9	27.8	19.5	. .	2.4	. .	27 19.35	− 1.76	. .	+26.98	14 27 44.57	+ 0.99
	46	γ Ceti	F.	.	52.3	54.9	56.3	2.5	4.7	6.6	12.8	14.2	16.9	36 4.58	− 0.49	+26.95	+26.98	2 36 31.07	+ 0.03
	47	β Ursæ Minoris, S. P.	F.	.	. .	. .	52.0	44.0	36.1	28.5	21.0	. .	. .	50 36.37	− 1.68	. .	+26.99	14 51 1.68	+ 0.70
	48	ζ Arietis	F.	.	. .	. .	. .	22.2	25.6	26.6	27.7	28.7	35.3	6 56.12	− 0.36	+27.05	+26.99	3 7 22.75	− 0.09
	49	δ Persei	F.	.	52.1	55.6	58.1	7.1	10.2	12.9	22.1	24.5	28.1	33 10.08	− 0.08	. .	+27.00	3 33 37.00	− 0.16
	50	η Tauri	F.	3	2.3	5.1	6.7	13.7	15.8	18.1	24.7	26.4	29.1	39 15.77	− 0.33	+26.98	+27.00	3 39 42.44	+ 0.03

4.30.32.33.37.38.39.42. Wire A used.
5. Transit over wires IV–VII.
12.16.18.20.24.45.47. Bisections at sets B and D.
17. Transit over wires C_2, C_1, B_2, B_1, and II.
17. Bisections at wires B_1 and II.
43. Bisections at wires E_1–E_6 and VII.
45. Reduced on the supposition that the micrometer readings were five revs. too great.
48. Transit over set E and VII.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	59 4	28.8	25.1	22.1	22.3	27	. .	060	. .	. .	. .	13.5	59 7 16.6	. .	+ 1 39.8	110 15 17.6	− 7.7
2	59 36	1.1	27.2	24.5	27.3	25	. .	. .	. .	098	030	13.5	59 39 41.8	678	+ 1 41.9	110 47 44.9	− 7.7
3	0 10	6.9	2.5	2.5	2.7	25	. .	. .	. .	240	215	13.5	0 13 34.1	. .	+ 0.2	51 19 55.5	+ 0.1
4	37 22	0.4	25.5	22.6	25.5	32	330	345	. .	329	332	12.5	37 26 26.6	706	+ 46.1	88 33 33.9	−20.3
5	45 41.6	10 24.5	20.8	16.8	18.9	26	. .	412	379	590	690	12.5	45 44 59.7	720	+ 1 1.9	96 52 22.8	
6	38 28	8.7	5.0	2.7	3.5	25	566	534	. .	. .	. .	12.5	38 31 28.5	723	+ 48.1	89 38 37.8	− 1.3
7	38 28	8.7	5.0	2.7	3.5	28	. .	. .	. .	180	182	12.5	38 30 46.1	. .	+ 48.1	89 37 55.4	− 1.3
8	343 2	7.8	3.8	2.0	3.5	28	. .	. .	595	. .	. .	12.5	343 4 41.5	. .	− 18.4	34 10 44.3	− 1.0
9																	
10	34 32	8.0	4.2	0.3	3.2	27	. .	. .	200	. .	. .	12.5	34 35 3.2	. .	+ 41.7	85 42 6.1	− 0.2
11	33 52	8.5	4.5	0.6	3.1	24	840	825	. .	765	725	12.5	33 55 39.9	722	+ 40.6	85 2 41.7	−22.9
12	310 14	9 29.5	26.1	24.6	27.7	23	. .	. .	. .	668	685	12.5	310 18 6.2	. .	− 1 11.2	1 23 16.2	+ 1.5
13	310 14	9 29.3	26.5	25.2	26.4	23	652	631	635	633	. .	12.5	310 18 4.9	728	− 1 11.2	1 23 14.9	+ 0.2
14	30 20	0.3	26.6	24.1	26.0	26	. .	. .	. .	. .	462	12.5	30 23 20.6	728	+ 35.5	81 30 17.3	+ 3.8
15	332 2	0.7	26.9	26.3	27.7	25	. .	. .	. .	608	610	12.5	332 5 33.8	728	− 32.1	23 12 22.9	0.0
16	295 8	7.0	3.4	3.3	5.4	21	364	352	. .	. .	. .	12.5	295 12 31.8	. .	− 2 8.0	346 16 45.0	+ 2.3
17	293 34	6.8	3.4	2.2	4.3	25	662	568	. .	. .	. .	12.5	293 37 27.1	730	− 2 17.7	344 41 30.6	+ 0.4
18	321 36	7.2	3.0	2.9	4.9	25	. .	. .	. .	274	. .	12.5	321 39 32.1	. .	− 47.9	12 45 5.4	− 2.7
19	349 26	9.5	4.4	3.6	5.5	21?	835	796	. .	803	886	12.5	349 30 24.1	. .	− 11.2	40 36 34.1	+ 2.4
20	291 10	5.5	2.3	1.8	3.5	22	234	222	. .	. .	. .	12.5	291 14 20.0	730	− 2 34.7	342 18 6.5	− 1.0
21	351 28	6.5	2.5	0.6	2.4	24	. .	030	. .	853	750	12.5	351 31 55.0	. .	− 9.0	42 38 7.2	− 0.6
22	15 8	11.4	7.4	5.0	7.5	24	. .	. .	. .	890	848	12.5	15 11 34.2	732	+ 16.7	66 18 12.1	− 1.4
23	307 46	3.9	0.9	29.9	1.1	22	940	906	876	942	882	12.5	307 50 11.1	734	− 1 17.9	358 55 14.4	− 0.1
24	18 42	6.8	2.6	0.9	3.5	26	626	650	. .	. .	. .	12.5	18 45 12.7	748	+ 20.6	69 51 54.5	+ 8.0
25	18 22	27.5	23.3	21.6	23.3	26	. .	. .	. .	920	874	12.5	18 25 17.0	. .	+ 20.7	69 31 58.9	+ 8.0
26	27 38	10.1	6.2	3.0	4.9	25	. .	408	. .	. .	198	12.5	27 41 30.0	. .	+ 31.9	78 48 23.1	− 0.5
27	280 58	1.1	28.9	27.7	28.7	28	. .	. .	. .	153	170	12.5	281 0 51.3	. .	− 5 4.1	332 2 8.4	− 1.1
28	328 26	7.0	3.2	3.0	4.1	22	. .	278	. .	172	. .	12.5	328 30 19.8	752	− 37.3	19 36 3.7	− 0.3
29	24 20	10 5.7	2.4	28.8	1.4	27	. .	. .	. .	260	190	12.5	24 23 3.8	677	+ 27.1	75 29 52.1	+ 0.8
30	37 22	8.0	4.2	1.3	3.3	31	. .	926	. .	760	. .	12.5	37 26 26.0	683	+ 45.8	88 33 33.0	−20.4
31	33 10	10 5.3	2.4	29.0	1.3	25	. .	963	. .	918	. .	12.5	33 13 24.5	687	+ 39.2	84 20 24.9	− 0.8
32	33 34	2.5	29.8	26.7	28.2	31	. .	933	. .	816	. .	12.5	33 38 30.4	710	+ 40.1	84 45 31.7	−22.7
33	38 36	9.7	6.1	3.6	4.7	30	. .	649	. .	523	. .	12.5	38 40 43.4	716	+ 48.3	89 47 52.9	−24.2
34	310 14	2.0	29.6	27.5	29.7	23	475	430	410	444	465	12.5	310 18 5.0	717	− 1 11.1	1 23 15.1	+ 0.7
35	30 20	5.5	2.0	29.0	0.8	26	569	510	. .	347	380	12.5	30 23 16.9	721	+ 35.4	81 30 13.5	− 0.1
36	18 40	3.6	0.7	28.0	0.4	26	386	360	. .	240	141	12.5	18 43 20.7	723	+ 20.5	69 50 2.4	+ 0.2
37	13 34	6.1	2.8	0.5	2.7	29	. .	. .	. .	388	. .	12.3	13 39 4.1	729	+ 14.7	64 45 40.0	−18.8
38	33 28	6.7	4.1	0.9	2.7	35	. .	475	. .	280	. .	12.3	33 31 32.2	736	+ 40.2	84 38 33.6	−19.5
39	33 20	1.8	28.7	25.6	27.5	24	. .	788	. .	710	. .	12.3	33 26 20.2	736	+ 40.0	84 33 21.4	−19.2
40	52 42	4.6	1.4	28.1	0.5	25	. .	959	. .	851	. .	12.3	52 45 25.5	738	+ 1 19.7	103 53 6.4	0.0
41	19 56	6.7	3.0	0.5	3.1	22	. .	828	. .	800	. .	12.2	20 0 10.7	739	+ 22.1	71 6 54.0	+ 1.9
42	15 0	1.9	28.0	25.6	27.2	23	. .	058	. .	080	. .	12.2	15 6 46.1	740	+ 16.4	66 13 23.7	−14.2
43	32 49	8 15.1	10.8	6.7	6.2	20	272	312	391	509	575	10.8	32 53 43.7	614	+ 38.1	84 0 43.0	
44	332 2	8.6	5.5	3.2	5.4	25	. .	. .	. .	386	416	10.8	332 5 27.4	616	− 31.2	23 11 17.4	− 1.8
45	295 8	7.9	5.1	2.9	6.2	26	592	512	. .	. .	. .	10.8	295 12 26.4	. .	− 2 4.7	346 16 42.9	+ 1.3
46	36 8	14.6	11.1	6.9	9.7	22	668	604	. .	455	386	10.8	36 12 6.3	620	+ 43.2	87 19 10.7	− 0.9
47	293 34	13.4	10.6	8.5	10.9	25	330	325	. .	188	170	10.8	293 37 24.2	623	− 2 14.3	344 41 31.1	+ 2.7
48																	
49	351 28	13.1	9.0	6.6	8.7	23	. .	. .	. .	064	200	10.8	351 31 57.8	. .	− 8.8	42 38 10.2	+ 3.0
50	15 8	13.2	8.9	5.4	8.4	24	712	720	. .	463	448	10.8	15 11 36.7	648	+ 16.1	66 18 14.0	+ 0.6

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°
34	30.250	35.0	72.5
42	30.250	32.4	71.5

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
5	− 38 55.3	− 14 53.9
43	− 30 20.4	− 15 20.3

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Nov. 27	1	Neptune	T.	.	10.2	12.9	14.2	20.3	22.4	24.5	30.6	32.2	34.7	56 22.44	− 0.50	. .	+27.27	0 56 49.21	. .
	2	ε Piscium	T.	.	58.0	0.5	2.2	8.4	10.6	12.4	18.6	20.2	22.7	1 10.40	− 0.50	. .	+27.27	1 1 37.17	+ 3.27
	3	Polaris	T.	.	. .	. .	16.0	42.0	5.0	27.0	54.0	. .	. .	11 5.12	+15.00	. .	+27.27	1 11 47.39	+ 2.55
	4	o Piscium	T.	.	49.5	52.2	53.7	59.8	1.9	4.0	10.0	11.7	14.2	38 1.89	− 0.47	+27.29	+27.27	1 38 28.69	− 0.06
	5	β Arietis	T.	.	44.6	47.3	48.9	55.6	57.8	0.0	6.4	8.2	10.7	46 57.72	− 0.37	+27.24	+27.28	1 47 24.63	+ 0.05
	6	ξ¹ Ceti	T.	.	24.4	27.0	28.4	34.8	37.0	39.0	45.1	46.5	49.2	5 36.82	− 0.47	+27.27	+27.28	2 6 3.63	+ 0.04
	7	γ Ceti	T.	.	51.9	54.6	56.1	2.2	4.3	6.4	12.4	14.2	16.7	36 4.31	− 0.51	+27.24	+27.29	2 36 31.09	+ 0.05
	8	Moon I, S.	T.	.	38.5	41.0	42.7	49.5	51.5	53.5	59.6	1.5	4.2	44 51.33	− 0.46	. .	+27.29	2 45 18.16	+65.61
	9	α Bootis	T.	.	59.0	1.6	3.2	9.7	12.0	14.1	20.6	22.3	25.0	9 11.94	− 0.37	+27.41	+27.41	14 9 38.98	+ 0.01
	10	Mercury, S.	T.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	11	α Coronæ Borealis	T.	.	25.0	28.0	29.7	36.5	38.8	41.1	48.0	49.8	52.7	28 38.84	− 0.30	+27.52	+27.43	15 29 5.97	− 0.09
28	12	Sun I, S.	T.	.	1.2	4.1	5.6	12.1	14.3	16.5	23.2	24.9	27.6	17 14.39	− 0.85	. .	+27.43	16 17 40.97	. .
	13	Sun II, N.	T.	.	. .	30.3	32.2	34.6	36.6	39.0	43.3	45.0	47.8	19 34.55	− 0.85	. .	+27.43	16 20 1.13	. .
	14	δ Ursæ Minoris	T.	.	21.0	4.0	38.0	13.0	. .	58.0	. .	. .	. .	13 47.82	+ 8.11	. .	+27.46	18 14 23.39	+ 1.11
	15	α Lyræ	T.	.	45.1	48.5	50.3	58.2	0.9	3.5	11.3	13.2	16.5	32 0.83	− 0.15	+27.39	+27.46	18 32 28.14	+ 0.07
	16	ζ Aquilæ	T.	.	41.6	44.3	45.9	52.1	54.3	56.4	2.7	4.3	6.9	58 54.28	− 0.47	+27.51	+27.46	18 59 21.27	− 0.01
30	17	Jupiter I, S.	F.	.	24.9	27.3	28.9	. .	. .	. .	45.2	46.6	49.3	17 37.03	− 0.61	. .	+27.81	0 18 4.23	. .
	18	Jupiter II, N.	F.	.	. .	. .	36.1	38.2	40.2	42.1	44.2	. .	. .	17 40.17	− 0.61	. .	+27.81	0 18 7.37	. .
	19	κ Draconis, S. P.	F.	.	59.5	51.7	47.2	28.8	23.0	16.8	58.4	53.2	46.1	27 22.74	− 2.01	. .	+27.81	12 27 48.54	− 0.10
	20	ε Piscium	F.	.	57.8	0.2	2.0	8.0	10.1	12.1	18.2	19.7	22.3	1 10.04	− 0.56	. .	+27.81	1 1 37.29	+ 3.30
	21	Polaris	F.	.	. .	. .	. .	30.0	57.0	17.0	43.0	. .	. .	10 55.02	+20.50	. .	+27.81	1 11 43.33	− 0.01
	22	o Piscium	F.	3	49.2	51.6	53.1	59.4	1.6	3.5	9.6	11.1	13.7	38 1.42	− 0.53	+27.81	+27.81	1 38 28.70	− 0.04
	23	β Arietis	F.	.	. .	. .	. .	23.3	26.3	27.6	28.7	29.8	36.1	46 57.16	− 0.39	+27.81	+27.81	1 47 24.58	+ 0.01
	24	α Arietis	F.	4	7.0	9.9	11.5	18.2	20.4	22.5	29.3	31.0	33.6	59 20.38	− 0.36	+27.78	+27.81	1 59 47.83	+ 0.04
	25	ξ¹ Ceti	F.	.	. .	. .	. .	. .	. .	. .	5.2	6.2	7.1	5 36.31	− 0.53	+27.83	+27.81	2 6 3.59	+ 0.01
	26	ι Cassiopeæ	F.	.	. .	. .	41.9	47.0	52.2	57.3	2.5	. .	. .	17 52.20	+ 0.67	. .	+27.82	2 18 20.69	+ 0.21
	27	5 Ursæ Min., S. P.	F.	.	. .	. .	36.4	26.8	17.9	10.4	1.7	. .	. .	27 18.66	− 2.61	. .	+27.82	14 27 43.87	+ 0.12
	28	γ Ceti	F.	.	51.6	54.1	55.6	1.8	4.0	6.0	12.1	13.5	16.2	36 3.88	− 0.58	+27.74	+27.82	2 36 31.12	+ 0.08
	29	β Ursæ Min., S. P.	F.	3	. .	. .	51.7	43.1	35.6	28.6	20.0	. .	. .	50 35.83	− 0.39	. .	+27.82	14 51 1.26	+ 0.15
	30	α Ceti	F.	3	46.7	49.2	50.8	57.0	59.0	1.1	7.2	8.7	11.3	54 59.01	− 0.58	+27.80	+27.82	2 55 26.25	+ 0.04
	31	α Aurigæ	F.	.	16.3	19.7	21.8	30.7	33.7	36.6	45.5	47.7	51.4	6 33.71	− 0.03	. .	+27.83	5 7 1.51	− 0.02
	32	β Tauri	F.	3	19.5	22.5	24.3	31.3	33.6	35.9	43.0	44.6	47.9	17 33.62	− 0.30	+27.74	+27.83	5 18 1.15	+ 0.08
	33	δ Orionis	F.	.	. .	. .	1.7	4.2	16.6	19.5	20.7	21.6	22.6	24 52.04	− 0.62	+27.81	+27.83	5 25 19.25	0.00
	34	Moon II, S.	F.	3	34.8	37.5	39.1	45.9	48.1	50.3	57.0	58.7	1.4	39 48.09	− 0.41	. .	+27.83	5 40 15.51	−70.92
	35	ε Orionis	F.	3	25.2	27.9	29.5	35.7	37.7	39.7	45.9	47.5	50.0	47 37.68	− 0.54	+27.94	+27.83	5 48 4.97	− 0.11
	36	δ Ursæ Min., S. P.	F.	.	. .	46.0	21.0	12.0	. .	. .	. .	. .	. .	15 2.93	− 9.13	. .	+27.83	18 15 21.63	+ 0.01
	37	γ Geminorum	F.	.	. .	. .	. .	. .	43.5	45.5	49.6	51.3	54.2	29 41.28	− 0.44	+27.93	+27.83	6 30 8.67	− 0.10
Dec. 1	38	Jupiter I, N	T.	.	26.1	28.6	30.1	. .	. .	. .	. .	. .	. .	17 38.29	− 0.52	. .	+27.83	0 18 5.60	. .
	39	Jupiter II, S.	T.	.	. .	. .	37.5	39.6	41.4	43.4	45.4	. .	. .	17 41.47	− 0.52	. .	+27.83	0 18 8.78	. .
	40	β Ceti	T.	.	20.3	23.0	24.5	30.9	33.1	35.4	41.8	43.3	46.2	36 33.17	− 0.70	+27.81	+27.83	0 37 0.30	+ 0.05
	41	Neptune	T.	.	57.0	59.6	1.2	7.3	9.3	11.5	17.5	19.2	21.7	56 9.37	− 0.50	. .	+27.84	0 56 36.71	. .
	42	ε Piscium	T.	.	57.5	0.0	1.6	7.8	9.8	11.8	18.0	19.7	22.1	1 9.81	− 0.49	. .	+27.84	1 1 37.16	+ 3.31
	43	Polaris	T.	.	. .	. .	14.0	38.0	0.0	24.0	49.0	. .	. .	11 1.52	+14.85	. .	+27.84	1 11 44.01	+ 1.26
	44	α Arietis	T.	.	6.8	9.8	11.3	18.2	20.2	22.4	29.2	31.0	33.6	59 20.28	− 0.34	+27.85	+27.84	1 59 47.78	0.00
	45	ξ¹ Ceti	T.	.	24.0	26.5	28.0	34.2	36.3	38.3	44.3	46.0	48.6	5 36.24	− 0.46	+27.82	+27.84	2 6 3.62	+ 0.05
	46	5 Ursæ Min., S. P.	T.	.	. .	. .	35.6	27.0	18.4	10.1	1.5	. .	. .	27 18.49	− 1.86	. .	+27.85	14 27 44.48	+ 0.68
	47	Weisse III, 145	T.	.	56.5	59.0	0.7	6.9	9.0	10.7	17.1	18.7	21.3	9 8.88	− 0.48	. .	+27.85	3 9 36.25	+ 2.91
	48	γ¹ Eridani	T.	.	15.8	18.4	19.9	26.2	28.4	30.4	36.8	38.4	40.9	51 28.36	− 0.65	+27.80	+27.86	3 51 55.57	+ 0.09
	49	Anonymous	T.	.	10.6	13.5	15.2	22.0	24.0	26.1	32.8	34.6	37.6	29 24.04	− 0.33	. .	+27.86	4 29 51.57	+ 3.22
	50	α Camelopardalis	T	.	6.0	12.5	16.2	31.1	36.0	41.2	56.5	0.1	6.7	40 36.27	+ 0.39	. .	+27.86	4 41 4.52	+ 0.16

8.14.26.27.29.34.36.46. Bisections at sets B and D.
19. Wire B used.
20.49. Wire A used.
23. Transit over wires E and VII.
25. Transit over last three wires of set E.
33. Transit over wire D_2, D_3, and set E.
47. Decreased five revs. in reduction.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent. Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ″	r. ″	″	″	″								° ′ ″		′ ″	° ′ ″	″
1	34 32	5.5	1.3	27.8	0.4	22	. .	. .	. .	218	098	10.2	34 36 19.7	719	+ 41.7	85 43 22.6	− 0.2
2	33 52	7.8	4.0	1.0	3.1	24	. .	680	. .	660	. .	10.2	33 55 39.6	. .	+ 40.6	85 2 41.4	−23.1
3	310 14	3.5	0.3	28.6	0.0	23	. .	400	370	300	. .	10.2	310 18 3.1	. .	− 1 11.2	1 23 13.1	− 0.5
4	30 20	1.4	28.5	25.4	26.1	26	. .	793	. .	653	. .	10.2	30 23 14.3	730	+ 35.5	81 30 11.0	− 2.7
5	18 40	7.3	4.0	1.7	3.5	26	. .	083	. .	923	. .	10.2	18 43 19.2	. .	+ 20.5	69 50 0.9	− 1.3
6	30 36	10.4	7.0	4.0	6.3	26	. .	160	. .	063	. .	10.2	30 39 14.6	733	+ 35.9	81 45 11.7	− 1.6
7	36 8	9.5	5.8	2.5	5.5	22	. .	. .	670	. .	. .	10.2	36 12 8.3	. .	+ 44.4	87 19 13.9	+ 2.3
8	28 42	9.8	4.0	1.5	3.8	26	412	. .	478	. .	583	10.2	28 45 10.9	734	+ 33.3	79 52 5.4	
9	18 58	8.6	5.3	3.4	5.3	26	. .	485	. .	269	. .	11.6	19 1 13.3	693	+ 20.7	70 8 55.2	+ 1.4
10	54 22	7.9	3.0	0.5	3.5	27	310	230	. .	096	972	11.6	54 25 3.1	679	+ 1 23.5	105 32 47.8	− 6.6
11	11 40	4.7	0.9	28.0	4.5	24	. .	219	. .	348	. .	11.6	11 43 49.0	664	+ 12.4	62 50 22.6	0.0
12	60 0	1.1	29.0	27.0	28.6	26	153	. .	. .	. .	. .	11.6	60 3 24.7	. .	+ 1 42.3	111 11 28.2	− 7.8
13	60 32	4.0	0.7	1.3	0.9	23	. .	. .	. .	940	108	11.6	60 35 51.6	630	+ 1 44.6	111 43 57.4	− 7.8
14	312 14	2.8	29.8	28.0	2.6	23	. .	150	. .	078	. .	11.6	312 18 8.1	570	− 1 4.0	3 23 25.3	0.0
15	0 10	3.4	29.4	28.6	0.6	25	. .	418	. .	164	. .	11.6	0 13 35.2	. .	+ 0.2	51 19 56.6	0.0
16	25 10	8.1	3.5	1.4	4.0	28	. .	. .	. .	390	280	11.6	25 12 43.7	558	+ 27.4	76 19 32.3	− 0.6
17	38 26	15.4	10.9	3.9	10.0	20	256	360	. .	. .	. .	11.0	38 30 41.9	. .	+ 46.5	89 37 49.6	− 1.2
18	38 26	15.4	10.9	3.9	10.0	23	. .	. .	. .	390	365	11.0	38 29 53.0	578	+ 46.5	89 37 0.7	− 1.2
19	289 24	8.4	6.6	4.9	7.1	17	802	785	. .	388	338	11.0	289 26 55.2	. .	− 2 44.1	340 30 32.3	+ 4.1
20	33 52	3.5	29.6	25.5	28.7	34	608	718	. .	830	812	11.0	33 55 44.9	. .	+ 39.4	85 2 45.5	−23.3
21																	
22	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . . .	586			
23	18 40	12.7	11.2	5.5	8.6	25	. .	. .	. .	. .	463	11.0	18 43 21.8	. .	+ 19.9	69 50 2.9	+ 0.8
24	16 0	9.3	5.4	1.8	4.7	27	700	600	. .	575	573	11.0	16 2 54.3	. .	+ 16.9	67 9 32.4	+ 1.3
25																	
26	332 2	9.1	6.1	3.6	6.0	25	406	430	. .	408	388	11.0	332 5 27.0	594	− 31.1	23 11 17.1	− 1.1
27	295 8	5.7	2.9	1.4	3.8	21	820	838	. .	726	729	11.0	295 12 24.9	. .	− 2 4.1	346 16 42.0	+ 1.8
28	36 8	9.9	6.3	2.3	6.1	22	. .	. .	. .	820	888	11.0	36 12 5.0	. .	+ 43.0	87 19 9.2	− 2.8
29	293 34	4.7	1.9	0.1	2.8	26	186	178	. .	112	090	11.0	293 37 19.3	. .	− 2 13.6	344 41 26.9	− 0.4
30	35 16	11.1	8.0	4.1	7.0	28	. .	632	. .	303	. .	11.0	35 18 38.7	600	+ 41.6	86 25 41.5	+ 1.3
31	352 58	8.0	3.1	1.8	4.4	22	. .	260	. .	270	. .	11.0	353 2 17.1	614	− 7.2	44 8 31.1	+ 4.1
32	10 20	12.1	8.6	5.8	8.6	23	. .	. .	. .	108	068	11.0	10 23 59.0	. .	+ 10.8	61 30 31.0	+ 0.8
33	39 14	12.0	7.7	3.0	7.0	27	. .	. .	. .	. .	526	11.0	39 16 52.0	. .	+ 48.2	90 24 1.4	+ 0.2
34	20 10	12.3	9.4	5.7	8.0	24	870	875	920	960	980	11.0	20 13 31.7	624	+ 21.8	71 20 14.7	
35																	
36	305 28	7.9	4.6	3.0	5.2	24	826	816	730	. .	. .	11.0	305 31 37.0	. .	− 1 22.6	356 36 35.6	+ 1.5
37	22 20	10.9	6.1	3.3	6.0	27	840	. .	. .	. .	. .	11.0	22 22 48.4	630	+ 24.4	73 29 34.0	− 2.1
38	38 26	10.6	7.4	4.4	7.1	25	798	760	. .	. .	. .	10.6	38 29 20.7	. .	+ 47.9	89 36 29.8	− 1.2
39	38 26	10.6	7.4	4.4	7.1	22	. .	. .	. .	. .	788	10.6	38 30 4.1	710	+ 47.9	89 37 13.2	− 1.2
40	57 32	6.3	3.3	28.5	2.6	28	. .	980	. .	906	. .	10.6	57 34 35.8	. .	+ 1 34.7	108 42 31.7	− 1.8
41	34 34	6.7	3.1	28.6	3.5	25	. .	380	. .	372	. .	10.6	34 37 30.2	. .	+ 41.6	85 44 33.0	− 0.2
42	33 52	5.9	2.0	27.5	1.8	24	. .	794	. .	788	. .	10.6	33 55 40.3	714	+ 40.6	85 2 42.1	−23.3
43	310 14	3.1	0.5	28.0	1.7	23	586	443	496	468	468	10.6	310 18 1.3	. .	− 1 11.1	1 23 11.4	− 1.0
44	16 0	7.8	4.0	0.5	4.0	28	. .	013	. .	803	. .	10.8	16 2 50.7	723	+ 17.4	67 9 29.3	− 1.8
45	30 36	9.3	5.3	1.0	4.6	26	. .	071	. .	039	. .	10.8	30 39 18.0	. .	+ 35.8	81 46 15.0	+ 1.6
46	295 8	7.7	4.6	4.0	6.5	21	. .	383	. .	462	. .	10.8	295 12 27.9	725	− 2 7.8	346 16 41.3	+ 1.5
47	33 26	11.3	8.0	3.4	7.2	22	. .	. .	. .	110	070	10.8	33 31 31.3	. .	+ 40.1	84 38 32.6	−19.9
48	52 42	6.2	3.0	28.2	2.0	25	. .	813	. .	658	. .	10.8	52 45 25.4	734	+ 1 19.6	103 53 6.2	− 1.6
49	15 0	8.4	4.5	1.4	5.0	22	550	623	. .	770	699	11.0	15 6 44.6	. .	+ 16.4	66 13 22.2	−14.0
50	332 44	6.3	3.5	1.9	4.2	26	. .	001	. .	984	. .	11.0	332 47 20.9	. .	− 31.2	23 53 10.9	0.0

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
8	− 27 11.3	− 15 32.4
34	− 20 6.8	− 16 3.2

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	CORRECTIONS. Inst.	Clock appar'nt.	Clock adopted.	Apparent R. Ascension.	Miscellan'us Corrections.
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Dec. 1	1	Weisse IV, 1068 .	T.	3	37.0	39.9	41.8	48.5	50.8	53.1	59.9	1.6	4.3	47 50.77	− 0.32	. .	+27.86	4 48 18.31	+ 3.27
	2	11 Orionis . . .	T.	.	25.4	27.9	29.4	35.9	38.0	40.0	46.4	48.2	50.6	56 37.98	− 0.40	+27.91	+27.86	4 57 5.40	− 0.09
	3	α Columbæ . . .	T.	.	13.6	16.6	18.3	25.8	28.1	30.6	38.0	40.0	42.9	34 28.21	− 0.87	+27.91	+27.86	5 34 55.20	− 0.11
	4	δ Ursæ Min., S. P. .	T.	.	. .	. .	8.0	35.0	1.0	27.0	50.0	. .	. .	14 0.10	− 6.64	. .	+27.87	18 14 21.33	− 0.03
	5	Moon II, S. . .	T.	3	59.4	2.0	4.0	10.5	12.8	14.9	21.7	23.3	26.0	42 12.73	− 0.37	. .	+27.88	6 42 40.24	−71.73
	6	Anonymous . .	T.	.	25.0	27.9	29.6	37.0	39.5	42.1	48.8	50.8	53.8	59 39.39	− 0.26	. .	+27.88	7 0 7.01	+ 3.83
	7	Anonymous . .	T.	.	11.8	14.8	16.4	24.0	26.0	28.3	35.4	37.5	40.3	7 26.06	− 0.26	. .	+27.88	7 7 53.68	+ 3.85
	8	Uranus I, N. . .	T.	.	8.9	11.4	13.2	. .	. .	. .	30.9	32.4	35.5	12 22.05	− 0.34	. .	+27.88	7 12 49.59	. .
	9	Uranus II, S. . .	T.	.	. .	. .	18.0	20.3	22.5	24.6	27.0	. .	. .	12 22.49	− 0.34	. .	+27.88	7 12 50.03	. .
	10	β Geminorum . .	T.	.	36.0	38.9	40.6	47.8	50.0	52.4	59.4	1.2	3.9	36 50.02	− 0.29	+27.93	+27.88	7 37 17.61	− 0.05
	11	λ Ursæ Min., S. P. .	T.	.	. .	. .	26.0	37.0	50.0	7.0	15.0	. .	. .	54 51.00	−19.21	. .	+27.88	19 55 59.67	+ 1.23
	12	15 Argus	T.	.	17.8	20.6	22.2	28.8	30.9	33.1	40.0	42.0	44.6	1 31.11	− 0.75	+27.88	+27.89	8 1 58.25	− 0.01
	13	Anonymous . .	T.	.	20.6	23.5	25.4	32.0	34.1	36.5	44.0	45.4	48.5	4 34.49	− 0.29	. .	+27.89	8 5 2.09	+ 3.98
	14	Weisse VIII, 87 .	T.	.	21.7	24.3	25.9	33.2	35.3	37.6	44.5	46.6	49.2	5 35.37	− 0.29	. .	+27.89	8 6 2.97	+ 3.98
	15	α Bootis	F.	.	1.0	2.7	7.1	9.1	11.4	13.3	15.7	20.0	21.7	9 11.33	− 0.35	+28.09	+28.04	14 9 39.02	− 0.04
2	16	Sun I, N. . . .	F.	.	16.0	18.6	20.2	27.1	29.4	31.5	38.0	39.8	42.5	35 29.23	− 0.63	. .	+28.07	16 35 56.67	. .
	17	Sun II, S. . . .	F.	.	36.5	39.7	41.2	48.0	50.1	52.2	58.9	0.6	3.2	37 50.04	− 0.63	. .	+28.07	16 38 17.48	. .
	18	α Aquilæ . . .	F.	.	41.6	44.2	45.6	51.8	53.9	56.0	2.3	3.7	6.1	42 53.01	− 0.42	+28.11	+28.11	19 43 21.60	+ 0.01
	19	Neptune . . .	F.	3	53.8	56.4	57.9	4.1	6.1	8.0	14.5	16.2	18.4	56 6.16	− 0.44	. .	+28.17	0 56 33.89	. .
	20	ε Piscium . . .	F.	.	57.3	59.6	1.2	7.6	9.5	11.6	17.7	19.2	21.8	1 9.49	− 0.44	. .	+28.17	1 1 37.22	+ 3.32
	21	Polaris	F.	3	. .	. .	11.0	37.0	1.0	23.0	47.0	. .	. .	11 0.14	+10.53	. .	+28.17	1 11 38.84	− 3.25
	22	η Piscium, (R.) . .	F.	3	48.2	50.9	52.3	58.6	1.0	3.0	9.5	10.9	13.4	24 0.87	− 0.32	. .	+28.17	1 24 28.72	+ 0.22
	23	ο Piscium . . .	F.	3	48.4	51.0	52.5	58.8	0.9	3.1	9.2	10.8	13.1	38 0.87	− 0.42	+28.24	+28.17	1 38 28.62	− 0.11
	24	β Arietis, (R.) . .	F.	.	43.8	46.4	48.0	54.6	56.8	58.8	5.5	7.0	9.8	46 56.74	− 0.27	. .	+28.18	1 47 24.65	+ 0.09
	25	α Arietis	F.	.	6.5	9.1	10.9	17.5	20.1	23.1	28.9	30.4	33.2	59 19.86	− 0.31	+28.24	+28.18	1 59 47.73	− 0.05
	26	ξ¹ Ceti	F.	3	23.6	26.0	27.7	33.8	35.7	38.0	44.3	45.7	48.2	5 35.89	− 0.42	+28.13	+28.18	2 6 3.65	+ 0.08
	27	ι Cassiopeæ . . .	F.	.	21.7	27.6	31.2	46.8	52.0	57.0	12.9	16.7	23.1	17 52.11	+ 0.25	. .	+28.18	2 18 20.54	+ 0.09
	28	5 Ursæ Min., S. P. .	F.	.	. .	. .	34.5	26.5	17.0	7.7	59.2	. .	. .	27 16.95	− 1.43	. .	+28.18	14 27 43.70	− 0.14
	29	γ Ceti	F.	.	51.3	53.6	55.3	1.4	3.4	5.4	11.5	12.9	15.4	36 3.36	− 0.45	+28.12	+28.19	2 36 31.10	+ 0.07
	30	β Ursæ Min., S. P. .	F.	.	. .	. .	50.0	42.3	34.3	27.1	18.7	. .	. .	50 34.52	− 1.35	. .	+28.19	14 51 1.36	+ 0.17
	31	Weisse III, 145 .	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	32	Weisse V, 53 . .	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	33	Anonymous . .	F.	.	10.7	12.6	14.3	23.6	26.1	28.3	35.2	37.3	40.2	7 25.37	− 0.25	. .	+28.24	7 7 53.36	+ 3.83
	34	Weisse VII, 255 .	F.	.	. .	. .	. .	. .	. .	. .	7.4	9.3	12.5	8 58.08	− 0.25	. .	+28.24	7 9 26.07	+ 3.83
	35	α² Geminorum . .	F.	2	31.7	34.7	36.3	43.9	46.3	48.5	55.9	57.8	0.7	25 46.20	− 0.24	+28.15	+28.25	7 26 14.21	+ 0.30
	36	α Canis Minoris .	F.	.	46.5	49.0	50.5	54.6	56.8	59.0	1.0	2.9	7.2	31 58.84	− 0.43	+28.26	+28.25	7 32 26.66	− 0.03
	37	Moon II, S. . .	F.	.	53.8	56.6	58.2	5.1	7.2	9.5	16.0	17.6	20.4	45 7.16	− 0.34	. .	+28.25	7 45 35.07	−71.65
	38	λ Ursæ Min., S. P. .	F.	.	. .	. .	18.0	25.0	36.0	. .	. .	. .	. .	54 38.77	−14.22	. .	+28.25	19 54 52.80	− 4.45
	39	Anonymous . .	F.	3	20.9	23.3	25.2	. .	. .	. .	42.9	44.5	47.0	4 33.97	− 0.28	. .	+28.25	8 5 1.94	+ 3.95
	40	Weisse VIII, 87 .	F.	4	21.2	24.0	25.6	32.8	35.1	37.0	44.0	46.3	48.7	5 34.97	− 0.28	. .	+28.25	8 6 2.94	+ 3.95
	41	D Præsepe . . .	F.	4	53.5	56.0	57.6	4.2	6.5	8.7	14.8	16.7	19.3	31 6.37	− 0.33	. .	+28.26	8 31 34.30	+ 3.84
	42	G Præsepe . . .	F.	2	52.8	55.7	57.2	3.7	6.0	8.2	14.5	16.2	18.9	32 5.91	− 0.33	. .	+28.26	8 32 34.24	+ 3.85
	43	ε Hydræ	F.	.	9.6	12.4	13.4	19.9	22.1	24.1	30.5	32.0	34.3	39 32.03	− 0.42	+28.30	+28.26	8 39 49.92	− 0.04
3	44	Sun I, N. . . .	N.	2	36.2	39.0	40.4	47.1	49.5	51.7	58.4	59.9	2.7	39 49.43	− 0.64	. .	+28.42	16 14 17.21	. .
	45	Sun II, S. . . .	N.	2	57.1	59.8	1.5	8.0	10.2	12.5	19.2	20.7	23.6	42 10.29	− 0.64	. .	+28.42	16 42 38.07	. .
	46	Jupiter I, S. . .	N.	2	30.6	33.2	34.6	. .	. .	. .	51.0	52.5	55.0	17 42.81	− 0.47	. .	+28.49	0 18 10.83	. .
	47	Jupiter II, N. . .	N.	2	. .	. .	41.6	43.6	45.7	47.6	49.7	. .	. .	17 45.65	− 0.47	. .	+28.49	0 18 13.67	. .
	48	ε Piscium . . .	N.	2	28.1	30.7	32.1	38.3	40.5	42.5	48.8	50.3	53.0	55 40.48	− 0.42	. .	+28.50	0 56 8.56	. .
	49	Polaris	N.	3	. .	. .	16.0	39.5	3.0	. .	50.5	. .	. .	11 3.60	+10.35	. .	+28.50	1 11 42.63	+ 1.27

1.6.7.13.14.31.32.33.34.39.40. Wire A used.
15. Bisections at E_6 and VII.
28.30.37. Bisections at sets B and D.
32. Decreased by five revs. in reduction.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	14 10	8.8	5.0	2.6	5.6	29	. .	188	. .	120	. .	11.0	14 15 4.5	737	+ 15.4	65 21 41.1	−12.9
2	23 36	11.1	8.0	4.5	7.2	22	. .	432	. .	322	. .	11.0	23 40 11.8	. .	+ 26.6	84 46 59.6	+ 1.9
3	72 56	12.4	10.1	5.4	8.6	26	. .	370	. .	120	. .	11.2	72 59 11.1	742	+ 3 16.3	124 8 48.6	+ 2.7
4	305 28	10.8	8.3	6.2	8.5	24	550	545	550	535	490	11.4	305 31 38.3	743	− 1 24.9	356 36 34.6	+ 0.8
5	19 34	6.5	3.4	0.0	3.4	32	284	329	228	370	. .	11.4	19 35 45.0	749	+ 21.7	70 42 27.9	
6	7 58	8.6	4.2	2.6	5.0	32	. .	622	. .	380	182	11.5	8 2 15.6	. .	+ 8.6	59 8 45.4	− 3.8
7	8 14	8.5	4.3	2.5	4.0	31	598	700	. .	820	788	11.5	8 18 26.5	. .	+ 8.9	59 24 56.6	− 3.1
8	16 0	10.6	6.5	3.3	6.6	23	938	. .	. .	. .	031	11.5	16 3 48.9	. .	+ 17.5	67 10 27.6	− 0.1
9	16 0	10.6	6.5	3.3	6.6	24	. .	342	. .	425	. .	11.5	16 3 42.6	. .	+ 17.5	67 10 21.3	− 0.1
10	10 30	4.8	1.4	29.3	1.5	26	. .	779	. .	903	. .	11.6	10 33 10.2	. .	+ 11.3	61 39 42.7	− 1.3
11	307 46	4.3	1.8	3.3	0.4	22	868	724	853	863	808	11.6	307 50 10.2	. .	− 1 18.2	358 55 13.2	− 0.1
12																	
13	11 18	9.8	6.5	3.5	6.7	30	. .	398	. .	300	. .	11.6	11 22 45.7	. .	+ 12.3	62 29 19.2	+ 2.6
14	11 18	9.8	6.5	3.5	6.7	32	. .	. .	. .	472	342	11.6	11 22 13.5	752	+ 12.3	62 28 47.0	+ 2.6
15	18 58	9 26.1	21.8	21.5	23.3	27	. .	. .	. .	004	021	13.0	19 1 16.6	745	+ 20.9	70 7 58.7	+ 3.7
16	60 36	9.5	5.0	4.1	5.6	19	452	536	. .	. .	. .	13.0	60 41 0.4	. .	+ 1 46.4	111 49 8.0	− 7.8
17	61 8	7.1	3.4	0.9	4.3	17	. .	. .	. .	768	782	13.0	61 13 26.2	689	+ 1 48.8	112 21 36.2	− 7.9
18	30 18	11.6	7.5	5.9	8.6	25	322	435	. .	315	312	13.0	30 21 27.7	686	+ 35.1	81 28 24.0	+ 0.9
19	34 34	4.5	1.1	28.4	0.9	24	665	682	. .	660	540	13.5	34 37 46.2	780	+ 42.3	85 44 49.7	− 0.2
20	33 52	8.5	4.7	2.0	4.5	24	860	690	. .	652	597	13.5	33 55 41.5	. .	+ 41.2	85 2 43.9	−23.4
21	310 14	2.7	29.4	28.7	0.9	23	544	570	555	578	588	13.5	310 18 3.5	. .	− 1 12.2	1 23 12.5	+ 0.4
22	155 44	9.0	6.2	4.3	4.5	27	508	. .	. .	. .	318	13.5	155 46 58.7	782	− 27.6	75 19 50.1	− 1.7
23	30 20	12.1	8.1	6.2	8.2	25	962	018	. .	000	946	13.5	30 23 18.0	. .	+ 36.0	81 30 15.2	+ 1.3
24	161 14	8.4	6.9	4.3	4.5	28	695	651	. .	490	475	13.5	161 16 40.8	785	− 20.8	69 50 1.2	− 0.9
25	16 0	9.1	5.0	3.4	5.7	27	860	. .	. .	. .	765	13.5	16 2 .53.3	. .	+ 17.7	67 9 32.2	+ 1.1
26	30 36	9.1	5.5	2.6	5.2	26	. .	. .	. .	132	138	13.5	30 38 17.9	788	+ 36.4	81 45 15.5	+ 2.0
27	332 2	4.0	1.2	29.8	1.7	25	778	782	. .	622	632	13.5	332 5 30.6	. .	− 32.5	23 11 19.3	+ 1.7
28	295 8	2.5	29.5	29.1	1.4	21	894	877	. .	826	720	13.5	295 12 29.4	. .	− 2 9.8	346 16 40.8	+ 1.5
29	36 8	9.3	6.0	4.1	6.6	23	192	130	. .	963	909	13.5	36 12 5.1	. .	+ 44.9	87 19 11.2	− 0.9
30	293 34	4.1	1.3	0.9	3.0	25	892	862	. .	792	795	13.5	293 37 26.5	786	− 2 19.5	344 41 28.2	+ 1.6
31	33 28	7.5	5.0	2.8	5.0	35	282	315	. .	363	392	13.5	33 31 32.5	. .	+ 40.7	84 38 34.4	−20.0
32	14 40	9.6	5.6	4.2	6.1	28	130	300	. .	330	384	13.5	14 46 36.0	796	+ 16.2	65 53 13.4	−11.8
33	8 12	8.7	4.4	3.8	5.4	24	126	140	. .	. .	. .	13.5	8 18 24.7	. .	+ 9.0	59 24 54.9	− 2.9
34	8 12	8.7	4.4	3.8	5.4	29	. .	. .	. .	071	076	13.5	8 17 7.6	814	+ 9.0	59 23 37.8	− 2.9
35	6 40	6.5	2.4	0.7	2.9	26	. .	319	. .	323	. .	13.5	6 43 18.7	. .	+ 7.3	57 49 47.2	+ 0.6
36	33 16	12.5	9.0	7.7	9.0	25	065	081	. .	061	. .	13.5	33 19 31.7	. .	+ 40.6	84 26 33.5	+ 0.9
37	20 18	9.5	5.6	4.3	6.2	26	. .	701	620	612	. .	13.5	20 21 10.3	. .	+ 22.9	71 27 54.4	
38	307 46	6.0	3.1	2.5	5.0	22	675	660	654	. .	. .	13.5	307 50 13.2	. .	− 1 19.5	358 55 14.9	+ 1.8
39	11 18	11.5	8.2	6.4	9.1	29	486	498	. .	. .	. .	13.5	11 22 59.4	822	+ 12.5	62 29 33.1	+ 2.5
40	11 18	11.5	8.2	6.4	9.1	31	. .	. .	. .	950	954	13.5	11 22 20.2	. .	+ 12.5	62 28 53.9	+ 2.6
41	18 42	7.9	3.9	2.5	5.1	26	364	292	. .	. .	. .	13.5	18 45 17.9	. .	+ 21.0	69 52 0.1	+ 7.0
42	18 22	8.1	4.1	2.4	5.2	25	. .	. .	. .	. .	976	13.5	18 25 21.0	. .	+ 20.6	69 32 2.8	+ 7.0
43	31 54	7.8	3.9	1.5	4.0	18	. .	. .	. .	. .	765	13.5	31 59 11.5	826	+ 38.7	83 6 11.4	+ 1.8
44	60 46	4.6	1.4	29.5	3.1	26	274	292	. .	. .	. .	13.5	60 49 21.0	. .	+ 1 48.6	111 57 30.8	− 7.8
45	61 18	3.1	0.4	27.4	1.0	24	. .	. .	. .	642	695	13.5	61 21 45.0	747	+ 1 50.9	112 29 57.1	− 7.9
46	38 24	5.3	0.9	29.3	1.3	20	. .	. .	. .	370	. .	13.5	38 28 51.6	787	+ 48.8	89 36 1.6	− 1.2
47	38 24	5.3	0.9	29.3	1.3	22	. .	. .	. .	888	. .	13.5	38 28 11.6	. .	+ 48.8	89 35 21.6	− 1·2
48	31 38	5.4	2.1	28.9	2.0	23	. .	650	. .	467	. .	13.5	31 42 1.8	788	+ 37.9	82 49 0.9	+ 0.5
49	310 14	6.8	3.6	3.0	5.1	23	317	320	320	284	306	13.5	310 18 3.2	790	− 1 12.3	1 23 12.1	+ 0.2

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
5	− 19 37.9	− 16 9.4
37	− 20 27.5	− 16 13.0

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Dec. 5	1	Weisse XXIII, 357	H.	2	. .	. .	. .	7.3	9.3	11.3	17.5	19.0	21.5	18 9.30	− 0.71	. .	+28.87	23 18 37.46	+ 3.88
	2	ι Piscium . . .	H.	3	31.5	34.0	35.5	41.8	43.9	45.8	52.0	53.5	56.1	32 43.79	− 0.68	. .	. .	. . . .	. .
	3	γ Pegasi	H.	2	48.1	51.0	52.5	58.7	1.0	3.1	9.3	10.8	13.4	6 0.88	− 0.57	. .	. .	. . . .	. .
	4	β Ceti	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	5	48 Cephei	T.	.	. .	. .	13.4	22.7	32.7	41.6	0.3	7.3	18.4	3 23.08	+ 1.89	. .	+28.91	3 3 53.88	+ 1.35
	6	ζ Arietis	T.	.	41.3	44.2	45.8	52.3	54.4	56.7	3.2	4.9	7.6	6 54.50	− 0.49	+28.82	+28.91	3 7 22.92	+ 0.06
	7	Anonymous . .	T.	.	19.8	22.4	24.0	30.2	32.2	34.3	40.3	41.9	44.6	14 32.19	− 0.68	. .	+28.91	3 15 0.42	+ 2.89
	8	ζ Persei	T.	.	11.8	14.7	16.5	23.7	26.1	28.5	35.7	37.4	40.4	45 26.09	− 0.34	. .	+28.91	3 45 54.66	+ 0.03
	9	γ¹ Eridani	T.	.	15.0	17.6	19.0	25.4	27.5	29.5	36.0	37.5	40.1	52 27.51	− 0.92	+28.93	+28.91	3 51 55.50	+ 0.01
	10	15 Draconis, S. P. .	T.	.	18.2	11.0	6.4	49.7	43.8	38.3	20.9	16.8	9.7	27 43.87	− 2.13	. .	+28.92	16 28 10.66	+ 0.22
	11	Weisse IV, 1068 .	T.	3	36.5	39.5	41.1	47.8	50.0	52.4	59.0	0.8	3.6	47 50.08	− 0.43	. .	+28.92	4 48 18.57	+ 3.22
	12	ε Ursæ Min., S. P. .	T.	.	27.1	8.2	57.2	11.7	55.5	40.7	56.4	44.2	26.1	58 56.34	− 4.83	. .	+28.92	16 59 20.43	+ 0.27
	13	Weisse V, 53 . .	T.	.	31.2	33.8	35.5	42.2	44.3	46.6	53.2	55.0	57.8	3 44.40	− 0.44	. .	+28.92	5 4 12.88	+ 3.23
	14	β Tauri, (R.) . . .	T.	.	. .	28.0	30.3	32.6	35.0	37.5	42.0	43.8	46.6	17 32.71	− 0.27	. .	+28.92	5 18 1.36	+ 0.21
	15	ε Orionis . . .	T.	.	54.0	56.6	58.1	4.2	6.3	8.3	14.5	16.0	18.5	29 6.28	− 0.76	+28.91	+28.92	5 29 34.44	+ 0.02
	16	α Orionis, (R) . .	T.	.	24.6	27.0	28.6	34.8	36.9	39.0	45.2	46.7	49.2	47 36.89	− 0.57	. .	+28.92	5 48 5.24	+ 0.07
	17	22 Camelopardalis .	T.	.	. .	44.5	50.9	56.7	2.2	8.7	19.5	24.2	31.4	3 56.62	+ 0.87	. .	+28.93	6 4 26.32	+ 0.45
	18	δ Ursæ Min., S. P. .	T.	.	44.0	18.0	37.0	. .	. .	. .	. .	. .	. .	14 3.83	−10.26	. .	+28.93	18 14 22.50	0.00
	19	Anonymous . .	T.	.	44.1	47.6	49.8	58.6	1.3	4.3	13.3	15.4	19.0	15 1.49	− 0.09	. .	+28.93	6 15 30.33	+ 3.98
	20	γ Geminorum . .	T.	.	27.6	30.3	31.8	38.4	40.6	42.6	49.0	50.6	53.3	29 40.47	− 0.54	+28.95	+28.93	6 30 8.86	− 0.02
	21	51 Cephei	T.	.	. .	. .	25.0	7.0	50.0	31.0	14.0	. .	. .	. . .	+11.24	. .	+28.93	6 38 29.73	+ 3.03
	22	50 Draconis, S. P. .	T.	.	53.2	42.8	37.7	13.6	5.1	57.7	33.6	26.8	16.7	50 5.24	− 2.82	. .	+28.93	18 50 31.35	+ 0.10
	23	Anonymous . .	T.	3	24.5	27.5	29.3	36.7	39.0	41.1	48.3	49.9	53.0	59 38.81	− 0.35	. .	+28.93	7 0 7.39	+ 3.72
	24	Weisse VII, 255 .	T.	.	43.3	46.2	48.1	55.4	57.7	0.0	7.2	9.0	11.7	8 57.62	− 0.35	. .	+28.93	7 9 26.20	+ 3.75
	25	Uranus, (center) .	T.	.	33.9	36.7	38.1	44.9	47.0	49.2	55.7	57.6	0.3	11 47.00	− 0.46	. .	+28.93	7 12 15.51	. .
	26	Weisse VII, 393 .	T.	.	33.7	36.8	38.4	45.5	47.8	50.1	57.4	59.2	2.0	13 47.88	− 0.36	. .	+28.93	7 14 16.45	+ 3.75
	27	Moon II, S. . .	T.	3	50.4	52.9	54.6	1.0	3.0	5.2	11.8	13.2	15.7	45 3.09	− 0.63	. .	+28.95	10 45 31.41	−68.24
	28	δ Leonis	T.	.	. .	34.4	36.6	38.6	40.7	43.0	47.5	49.1	51.8	6 38.68	− 0.48	+28.94	+28.96	11 7 7.16	0.00
	29	ο Cephei, S. P. . .	T.	.	20.7	14.3	10.8	54.4	49.0	43.5	27.9	23.5	17.5	12 49.07	− 1.98	. .	+28.96	23 13 16.05	+ 0.03
	30	τ Leonis	T.	.	30.5	33.0	34.4	40.5	42.6	44.7	50.8	52.3	55.0	20 42.64	− 0.70	+29.01	+28.96	11 21 10.90	− 0.04
8	31	α Lyræ	F.	.	43.1	. .	48.5	56.3	58.9	1.3	4.2	9.2	. .	31 58.84	− 0.25	+29.41	+29.34	18 32 27.93	− 0.07
	32	γ Aquilæ . . .	F.	3	18.9	21.5	23.2	27.2	29.3	31.3	33.5	39.6	41.2	39 31.36	− 0.59	+29.20	+29.35	19 40 0.12	+ 0.16
	33	α Aquilæ . . .	F.	.	40.5	43.1	44.7	50.9	52.9	54.9	1.0	2.8	5.4	43 52.91	− 0.61	+29.24	+29.35	19 44 21.65	+ 0.12
	34	Polaris . . .	F.	.	. .	. .	0.0	20.0	44.0	8.0	32.0	. .	. .	10 45 14	+18.27	. .	+29.41	1 11 32.82	− 4.74
	35	48 Cephei	F.	.	. .	. .	5.4	17.3	12.8	26.4	31.2	35.7	40.1	3 21.74	+ 1.47	. .	+29.43	3 3 52.64	+ 0.18
	36	ζ Persei	F.	.	11.2	14.3	16.0	23.2	25.6	28.0	35.1	36.9	40.0	45 25.59	− 0.35	. .	+29.43	3 45 54.67	+ 0.03
	37	γ¹ Eridani . . .	F.	.	. .	22.7	24.8	26.8	29.0	31.1	35.2	36.9	39.5	51 26.88	− 0.86	+29.51	+29.43	3 51 55.45	− 0.05
	38	ε Ursæ Minoris, S.P.	F.	.	23.0	16.0	55.0	. .	. .	. .	. .	. .	. .	58 56.96	− 3.90	. .	+29.44	16 59 22.50	+ 2.36
	39	ε Orionis . . .	F.	.	53.5	56.0	57.5	3.9	6.0	8.0	13.8	15.5	18.0	29 5.80	− 0.71	+29.38	+29.45	5 29 34.54	+ 0.08
	40	22 Camelopardalis .	F.	.	. .	. .	44.6	50.6	56.2	1.8	7.7	. .	. .	3 56.21	+ 0.73	. .	+29.45	6 4 26.39	+ 0.41
	41	δ Ursæ Minoris, S.P.	F.	.	. .	. .	. .	. .	. .	22.5	. .	. .	40.0	13 57.45	− 8.26	. .	+29.45	18 14 18.64	− 1.40
	42	Anonymous . .	F.	.	. .	. .	. .	. .	. .	. .	. .	14.7	18.4	15 0.96	− 0.14	. .	+29.45	6 15 30.27	+ 3.90
	43	γ Geminorum . .	F.	.	27.2	29.8	31.5	37.8	40.0	42.1	48.6	50.0	52.7	29 39.97	− 0.52	+29.49	+29.46	6 30 8.91	− 0.03
	44	51 Cephei . . .	F.	3	. .	. .	26.0	. .	51.5	30.5	16.5	. .	. .	36 51.28	+ 9.00	. .	+29.46	6 37 29.74	+ 2.16
	45	50 Draconis, S. P. .	F.	.	. .	. .	19.6	11.5	3.9	55.5	47.0	. .	. .	50 3.47	− 2.41	. .	+29.46	18 50 30.52	− 0.60
	46	Weisse VII, 255 .	F.	.	. .	. .	. .	57.2	59.6	2.0	7.3	8.5	11.8	8 57.40	− 0.35	. .	+29.46	7 9 26.51	+ 3.67
	47	Uranus . . .	F.	.	6.0	8.6	10.3	17.1	19.2	21.4	28.1	30.0	32.7	11 19.27	− 0.44	. .	+29.46	7 11 48.29	. .
	48	ε Draconis, S. P. .	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	49	15 Argus	F.	.	. .	25.4	27.6	30.0	32.0	34.2	38.8	40.7	43.1	1 29.87	− 0.99	+29.55	+29.47	8 1 58.35	− 0.10
	50	D Præsepe . . .	F.	.	52.5	55.0	56.5	3.2	5.5	7.6	14.1	15.8	18.5	31 5.41	− 0.47	. .	+29.48	8 31 34.42	+ 3.66

5.17.18.22.27.29.40.45.48. Bisections at sets B and D.
10.45. Wire A used.
22. Seems one rev. wrong.
32. Transit over B_3, C_1–C_4, and D_1, D_3.
35. Transit over wires D_2, D_3, and set E.
35. Bisections at E_1 and E_3.
41. Observed over wires D_3 and C_4.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	MICROSCOPE MICROMS. II.	MICROSCOPE MICROMS. III.	MICROSCOPE MICROMS. IV.	TELESCOPE MICROMETER. Rev.	TELESCOPE MICROMETER. 1.	TELESCOPE MICROMETER. 2.	TELESCOPE MICROMETER. 3.	TELESCOPE MICROMETER. 4.	TELESCOPE MICROMETER. 5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° '	r. "	"	"	"							"	° ' "		' "	° ' "	"
1	36 18	10 6.4	3.0	0.8	2.5	24	. .	. .	. .	. .	830	10.9	36 21 37.4	696	+ 44.2	87 28 42.8	—21.4
2	33 54	0.1	26.9	24.1	25.9	24	115	955	. .	899	909	10.9	33 57 58.3	701	+ 40.5	85 5 0.0	— 1.2
3	24 22	5.2	1.4	28.9	1.0	24	. .	175	. .	016	. .	10.9	24 25 51.5	706	+ 27.4	75 32 40.1	— 0.4
4	57 32	7.2	2.7	29.7	3.1	28	901	896	. .	. .	. .	10.9	57 34 37.2	716	+ 1 34.8	108 42 33.2	— 0.7
5	321 36	2.9	29.5	28.8	1.5	25	. .	. .	750	810	. .	10.9	321 39 26.6	. .	— 47.6	12 45 0.2	— 4.2
6	18 16	8.3	4.0	1.0	4.8	23	. .	640	. .	599	. .	10.9	18 19 55.9	. .	+ 20.0	69 26 37.1	— 1.4
7	33 22	6.3	2.3	28.7	3.3	22	. .	282	. .	236	. .	10.9	33 26 18.5	713	+ 39.8	84 33 19.5	—19.9
8	7 20	4.4	28.8	29.8	0.8	23	. .	399	. .	370	. .	10.9	7 24 3.1	. .	+ 7.8	58 30 32.1	— 0.9
9	52 42	8.1	4.0	0.8	4.4	25	. .	550	. .	420	. .	10.9	52 45 27.4	712	+ 1 19.2	103 53 7.8	— 0.7
10	287 54	3.3	0.8	0.4	2.4	26	. .	080	140	. .	. .	10.9	287 59 54.5	713	— 3 3.7	339 3 12.0	— 0.6
11	14 12	11.7	8.0	6.5	9.5	26	. .	804	. .	692	. .	10.9	14 15 3.7	. .	+ 15.4	65 21 40.3	—12.8
12	301 6	8.0	3.5	3.6	7.2	21	860	896	959	910	810	10.9	301 10 20.8	. .	— 1 39.6	352 15 2.4	— 0.8
13	14 42	8.5	5.0	2.5	6.4	21	. .	140	. .	. .	. .	10.9	14 46 33.8	. .	+ 16.0	65 53 11.0	—11.7
14	169 34	8.7	6.0	3.5	4.5	31	010	990	. .	900	930	10.9	169 36 2.0	. .	— 11.1	61 30 30.3	+ 0.3
15	40 6	6.8	3.0	0.0	3.1	22	. .	800	. .	638	. .	10.9	40 10 13.8	732	+ 51.1	91 17 26.1	+ 2.9
16	148 26	7.9	5.4	2.5	4.5	24	. .	801	. .	710	. .	10.9	148 29 37.8	727	— 37.1	82 37 20.5	+ 2.1
17	329 28	9.0	5.3	4.6	7.2	20	. .	. .	. .	160	138	10.9	329 32 46.5	. .	— 35.6	20 38 32.1	— 0.9
18	305 28	6.4	2.6	2.6	4.5	24	853	914	. .	. .	. .	10.9	305 31 36.3	. .	— 1 24.6	356 36 32.9	+ 0.5
19	353 28	9.8	3.5	2.0	5.1	20	. .	978	. .	186	020	10.9	353 32 34.3	. .	— 6.8	44 38 48.7	— 8.8
20	22 48	7.0	3.0	0.7	3.8	28	. .	117	. .	952	. .	10.9	22 20 49.3	. .	+ 24.9	73 27 35.4	— 1.1
21	311 38	9.5	6.6	6.1	8.2	28	855	833	778	763	604	10.9	311 40 34.1	. .	— 1 8.0	2 45 47.3	— 1.2
22	294 8	8.5	5.3	4.5	6.8	21	. .	060	. .	856	. .	10.9	294 12 34.3	. .	— 2 14.1	345 16 41.4	—13.9
23	7 58	8.5	4.6	3.1	5.6	22	270	320	. .	236	230	10.9	8 2 15.8	733	+ 8.6	59 8 45.6	— 3.8
24	8 12	8.8	5.3	3.8	6.5	19	. .	108	. .	240	213	10.9	8 17 1.7	. .	+ 8.8	59 23 31.7	— 2.9
25	15 58	11.5	6.5	4.4	7.2	20?	. .	170	. .	050	. .	10.9	16 2 46.6	. .	+ 17.5	67 9 25.3	— 0.1
26	8 46	10.8	6.7	5.8	8.0	26	. .	. .	. .	020	970	10.9	8 49 15.5	739	+ 9.4	59 55 46.1	— 2.5
27	29 42	7.6	2.6	29.5	3.1	20	. .	930	720	322	. .	10.9	29 46 42.4	766	+ 34.9	80 53 38.5	
28	17 36	6.8	2.5	29.5	2.6	19	. .	. .	. .	910	. .	10.9	17 40 53.4	767	+ 19.5	68 47 34.1	+ 0.3
29	286 16	2.0	29.3	27.6	0.4	19	. .	614	. .	678	. .	10.9	286 21 0.9	. .	— 3 25.7	337 23 56.4	+ 0.4
30	35 14	7.2	2.8	0.2	3.6	22	. .	920	. .	732	. .	10.9	35 18 9.0	770	+ 43.3	86 25 13.5	— 2.3
31	0 10	11.7	5.1	5.9	9.1	24	. .	667	. .	. .	. .	13.3	0 13 39.8	595	+ 0.2	51 20 1.2	+ 1.9
32	28 32	2.9	27.5	26.0	0.0	27	075	005	. .	. .	. .	13.3	28 35 12.4	595	+ 32.0	79 42 5.6	— 0.1
33	30 18	7.8	3.2	1.4	6.0	25	. .	279	. .	. .	. .	13.3	30 21 33.6	. .	+ 34.4	81 28 29.2	+ 5.2
34	310 14	0.9	27.1	26.6	29.5	23	690	733	835	845	860	13.3	310 18 2.0	712	— 1 11.0	1 23 12.2	+ 1.5
35	321 36	2.1	28.6	28.7	1.7	25	. .	. .	. .	810	830.	13.3	321 39 30.5	. .	— 47.8	12 45 3.9	+ 0.4
36	7 20	9 29.7	26.0	24.6	26.5	23	890	915	. .	682	604	13.3	7 24 4.0	726	+ 7.8	58 30 33.0	+ 0.2
37	52 42	2.7	29.6	27.0	29.0	25	. .	. .	. .	890	784	13.3	52 45 28.1	. .	+ 1 19.4	103 53 8.7	— 0.3
38	301 6	29.8	25.4	26.5	29.4	22	. .	276	. .	. .	. .	13.3	301 10 23.9	722	— 1 39.6	352 15 5.5	+ 3.4
39	40 6	8.4	4.3	2.5	6.2	22	800	750	. .	330	328	13.3	40 10 13.7	. .	+ 51.0	91 17 25.9	+ 2.3
40	329 28	4.0	29.9	29.9	0.1	20	. .	. .	. .	665	685	13.3	329 32 46.0	724	— 35.5	20 38 31.7	— 0.6
41	305 28	3.1	29.9	0.0	1.9	25	. .	287	. .	305	. .	13.3	305 31 34.9	. .	— 1 24.5	356 36 31.6	+ 0.2
42	353 28	9 28.7	24.0	23.9	25.9	21	. .	. .	. .	. .	626	13.3	353 32 37.0	. .	— 6.8	44 38 51.4	— 8.4
43	22 20	8.6	4.2	2.2	5.6	28	149	133	. .	969	935	13.3	22 22 49.9	. .	+ 24.9	73 29 36.0	— 0.7
44	311 38	4.6	1.5	1.0	4.1	28	948	245	. .	268	285	13.3	311 40 34.9	. .	— 1 7.9	2 45 48.2	+ 0.5
45	294 8	3.8	0.2	0.5	2.9	30	604	594	. .	517	520	13.3	294 12 48.6	. .	— 2 13.9	345 16 55.9	+ 1.5
46	8 12	5.7	1.4	0.5	3.3	19	. .	. .	. .	389	368	13.3	8 17 4.0	. .	+ 8.8	59 23 34.0	— 2.9
47																	
48	288 48	2.0	29.6	29.1	1.1	19	942	910	. .	. .	. .	13.3	288 52 58.8	728	— 2 55.4	339 56 24.6	+ 5.9
49																	
50																	

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

*For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	MOON'S— Semi-diam.
	' "	' "
27	— 29 13.0	— 16 10.0

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan'us Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Dec. 8	1	G Præsepe . . .	F.	.	. .	. .	0.9	2.7	5.1	7.2	13.6	15.3	18.1	32 5.02	− 0.47	. .	+29.48	8 32 34.03	+ 3.67
	2	Polaris, S. P. . .	T.	.	. .	. .	18.0	51.0	. .	5.0	39.0	. .	. .	11 27.65	−17.41	. .	+29.53	1 11 39.77	+ 2.50
	3	α Virginis . . .	T.	.	35.0	37.6	39.0	45.3	47.3	49.4	55.7	57.4	0.0	17 47.41	− 0.74	+29.47	+29.53	13 18 16.20	+ 0.07
	4	Moon II . . .	T.	4	2.5	5.2	6.7	13.0	15.0	17.1	23.5	25.0	27.6	29 15.07	− 0.69	. .	+29.53	13 29 43.91	−66.24
	5	Venus II, S. . .	T.	.	51.6	54.0	55.7	2.0	4.0	6.2	12.6	14.1	16.9	40 4.12	− 0.78	. .	+29.54	14 40 32.88	− 0.47
	6	α^2 Libræ	T.	.	54.6	57.2	58.9	5.3	7.4	9.5	15.4	17.4	20.1	43 7.36	− 0.80	+29.53	+29.54	14 43 36.10	− 0.01
	7	α Coronæ Borealis .	T.	.	23.5	26.2	27.9	34.9	37.2	39.3	46.2	48.0	51.0	28 37.13	− 0.36	+29.49	+29.55	15 29 6.32	+ 0.06
	8	δ Scorpii	T.	.	. .	0.0	2.3	4.5	6.5	8.9	13.1	15.0	17.8	52 4.46	− 0.89	+29.58	+29.55	15 52 33.12	− 0.03
9	9	Sun I, S. . . .	T.	2	. .	58.3	0.7	3.0	5.2	7.2	11.4	13.8	16.2	6 2.81	− 0.91	. .	+29.57	17 6 31.47	. .
	10	Sun II, N. . . .	T.	2	11.5	14.5	16.0	22.6	25.0	27.1	33.6	35.3	38.0	8 24.84	− 0.91	. .	+29.57	17 8 53.50	. .
	11	ζ Aquilæ. . . .	T.	.	. .	. .	. .	. .	. .	. .	0.5	2.1	4.7	58 52.12	− 0.50	+29.65	+29.58	18 59 21.20	− 0.03
	12	γ Aquilæ. . . .	T.	.	18.4	21.0	22.6	28.9	31.0	33.0	39.2	40.6	43.2	39 30.88	− 0.54	+29.63	+29.59	19 39 59.93	− 0.03
	13	α Aquilæ. . . .	T.	.	40.2	42.8	44.3	50.4	52.6	54.7	0.7	2.4	5.0	43 52.57	− 0.56	+29.54	+29.59	19 44 21.60	+ 0.06
	14	ε Draconis . . .	T.	.	28.0	35.5	40.3	58.3	4.2	10.1	28.0	32.3	39.5	48 4.02	+ 0.64	. .	+29.59	19 48 34.25	+ 0.45
	15	Weisse XXIII, 357	H.	3	56.0	58.5	0.2	6.3	8.4	10.4	16.5	18.0	20.5	18 8.31	− 0.62	. .	+29.71	23 18 37.40	+ 3.93
	16	ι Piscium . . .	H.	2	30.6	33.2	34.6	40.9	42.9	45.0	51.2	52.6	55.2	32 42.91	− 0.59	. .	. .	. . . . .	. .
	17	α Ceti, (R.) . . .	T.	.	45.1	47.5	49.2	55.4	57.2	59.4	5.4	7.1	9.7	54 57.33	− 0.61	. .	+29.66	2 55 26.38	+ 0.16
	18	48 Cephei . . .	T.	.	27.2	38.6	45.0	13.3	22.6	31.8	58.5	6.4	18.2	3 22.40	− 1.40	. .	+29.66	3 3 50.66	− 1.80
	19	ζ Arietis . . .	T.	.	40.5	43.3	44.9	51.4	53.6	55.7	2.3	4.1	6.7	6 53.61	− 0.43	+29.65	+29.66	3 7 22.84	− 0.02
	20	ζ Persei	T.	.	11.0	14.2	15.7	23.2	25.3	27.7	34.8	36.8	39.6	45 25.37	− 0.31	. .	+29.67	3 45 54.73	+ 0.08
	21	γ^1 Eridani . . .	T.	.	14.0	16.8	18.3	24.6	26.6	28.6	35.1	36.5	39.2	51 26.63	− 0.78	+29.68	+29.67	3 51 35.52	+ 0.02
10	22	Sun I, N. . . .	N.	1	13.5	16.2	17.8	24.7	26.9	29.2	35.8	37.4	40.2	10 26.86	− 0.66	. .	+29.85	17 10 56.05	. .
	23	Sun II, S. . . .	N.	1	35.6	38.3	39.5	46.7	48.8	51.2	57.7	59.4	2.1	12 48.84	− 0.66	. .	+29.85	17 13 18.03	. .
	24	Weisse XXIII, 498	H.	2	1.0	3.6	5.0	11.3	13.2	15.4	21.4	23.0	25.6	25 13.28	− 0.44	. .	+29.75	23 25 42.59	+ 3.89
	25	ι Piscium . . .	H.	2	30.4	33.0	34.4	40.6	42.7	44.7	50.9	52.5	55.0	32 42.69	− 0.42	. .	. .	. . . . .	. .
	26	Jupiter I, S. . .	N.	2	10.3	12.8	14.3	. .	. .	. .	50.6	32.2	34.8	18 22.50	− 0.46	. .	+29.89	0 18 51.93	. .
	27	Jupiter II, N. . .	N.	2	. .	. .	21.3	23.4	25.4	27.4	29.5	. .	. .	18 25.41	− 0.46	. .	+29.89	0 18 54.84	. .
	28	α Cassiopeæ, (R.) .	N.	3	14.1	18.7	21.4	32.4	36.0	39.6	50.6	53.4	58.0	32 36.02	− 0.14	. .	+29.89	0 33 5.77	− 0.05
	29	Anonymous . .	N.	1	30.8	39.9	45.0	47.2	49.5	51.5	53.4	59.2	1.7	50 49.36	− 0.43	. .	+29.89	0 51 18.82	+ 3.44
	30	Neptune . . .	N.	3	33.3	36.0	37.4	43.5	45.6	47.7	53.9	55.4	58.0	55 45.64	− 0.43	. .	+29.89	0 56 15.10	. .
	31	e Piscium . . .	N.	3	55.5	58.0	59.5	5.7	7.8	9.8	16.0	17.4	20.0	1 7.74	− 0.44	. .	+29.89	1 1 37.19	+ 3.38
	32	Polaris	N.	4	. .	. .	6.0	29.0	55.5	18.0	43.0	. .	. .	10 54.64	+12.08	. .	+29.89	1 11 36.61	+ 0.38
	33	θ Ceti	N.	3	46.7	49.2	50.8	56.9	58.9	1.0	7.3	8.9	11.5	16 59.02	− 0.53	+29.78	+29.89	1 17 28.38	+ 0.11
	34	A Cassiopeæ . .	N.	1.3	. .	. .	. .	56.8	3.4	9.6	15.0	30.7	38.0	21 3.17	+ 0.50	. .	+29.89	1 21 33.56	+ 0.28
	35	α Ceti	N.	3	44.4	47.0	48.6	54.7	56.7	58.8	5.0	6.5	9.1	54 56.76	− 0.44	+29.91	+29.90	2 55 26.22	+ 0.01
	36	48 (H) Cephei . .	N.	2	37.8	44.4	3.5	22.0	30.9	40.4	59.1	6.5	17.7	3 21.97	+ 1.03	. .	+29.91	3 3 52.91	+ 0.50
	37	α Persei, (R.) . .	N.	3	. .	24.0	27.1	30.4	33.5	36.4	42.8	45.1	49.1	14 30.29	− 0.22	. .	+29.91	3 14 59.98	+ 0.14
	38	γ^1 Eridani . . .	N.	2	13.7	16.3	17.8	24.2	26.2	28.1	34.6	36.0	38.6	51 26.17	− 0.58	+29.94	+29.91	3 51 55.50	0.00
	39	α Camelopard., (R.)	N.	2.3	4.5	10.8	14.0	29.8	34.8	39.7	55.0	58.8	4.7	40 34.68	+ 0.05	. .	+29.91	4 41 4.64	+ 0.15
	40	ε Ursæ Min., S. P. .	N.	2	. .	. .	23.1	7.6	52.5	37.5	22.7	. .	. .	58 52.62	− 2.50	. .	+29.91	16 59 20.03	− 0.09
	41	α Aurigæ, (R.) . .	N.	2	. .	. .	. .	32.8	35.0	38.1	44.0	46.0	49.8	6 32.22	− 0.25	. .	+29.91	5 7 1.88	+ 0.18
	42	ε Orionis . . .	N.	3	52.8	56.8	1.0	3.0	5.1	7.0	9.1	13.2	17.3	29 5.03	− 0.47	+29.93	+29.92	5 29 34.48	0.00
	43	α Orionis, (R.) . .	N.	3	. .	31.8	33.8	36.0	38.0	40.0	44.0	45.6	48.1	47 35.87	− 0.52	. .	+29.92	5 48 5.27	+ 0.03
	44	22 Camelopardalis .	N.	2	. .	. .	. .	. .	. .	7.6	19.0	23.5	30.7	3 56.00	+ 0.49	. .	+29.92	6 4 26.41	+ 0.32
	45	μ Geminorum . .	N.	3	22.3	24.0	28.4	30.6	32.8	35.0	37.2	41.5	43.4	14 32.80	− 0.28	+29.97	+29.92	6 15 2.44	− 0.05
	46	γ Geminorum, (R.) .	N.	2	. .	. .	. .	39.5	41.6	43.8	48.1	49.7	52.2	29 39.54	− 0.46	. .	+29.92	6 30 9.00	+ 0.02
	47	51 Cephei	N.	3	. .	. .	29.0	11.0	54.5	35.5	18.0	. .	. .	37 53.36	+ 5.97	. .	+29.93	6 38 29.26	+ 1.07
	48	α Canis Minoris, (R.)	N.	2	. .	. .	. .	. .	. .	. .	. .	. .	. .			. .	. . .	. . . . .	. .
	49	β Geminorum, (R.) .	N.	2	34.5	37.5	39.1	46.0	48.4	52.9	57.7	59.5	. .	36 48.39	− 0.39	. .	+29.94	7.37 17.94	+ 0.02

5.29. Wire A used.
6. Seems one rev. wrong.
22.34.36.39. Bisections at sets B and D.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	18 22	0.5	27.0	25.7	28.7	26	. .	. .	. .	586	596	13.3	18 25 18.5	742	+ 20.2	69 31 59.9	+ 6.3
2	307 28	0.3	28.3	27.6	2.4	24	740	678	. .	638	754	13.3	307 31 46.3	777	− 1 19.6	358 36 47.9	− 1.5
3	49 18	7.2	2.5	1.1	5.2	28	. .	220	. .	848	. .	13.3	49 20 51.1	. .	+ 1 11.2	100 28 23.5	+ 0.7
4	. .	. . .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . . . .	776			
5	52 20	2.9	28.4	27.5	0.9	31	. .	. .	. .	. .	250	13.3	52 24 38.5	. .	+ 1 19.1	103 32 18.8	− 5.7
6	54 18	8.8	5.8	3.9	6.5	23	. .	598	. .	. .	. .	13.3	54 21 57.5	760	+ 1 24.9	105 29 43.6	+14.6
7	11 40	9 29.8	27.4	26.1	28.5	24	. .	. .	473	. .	. .	13.3	11 43 51.7	753	+ 12.7	62 50 25.6	− 0.3
8																	
9	61 58	9 25.4	21.3	20.8	21.4	21	. .	328	. .	. .	. .	13.3	62 2 46.3	. .	+ 1 54.0	113 11 1.5	− 7.9
10	61.26	9 17.7	14.0	13.6	14.3	23	. .	. .	. .	848	. .	13.3	61 30 13.2	739	+ 1 51.4	112 38 25.8	− 7.9
11	25 10	3.8	29.5	0.0	0.4	28	. .	760	. .	640	. .	13.3	25 12 44.4	. .	+ 28.5	76 19 34.1	− 0.7
12	28 32	5.9	0.3	1.4	2.6	26	. .	750	. .	702	. .	13.3	28 35 12.7	. .	+ 32.9	79 42 6.8	+ 0.9
13	30 18	10.4	6.1	4.5	6.1	25	. .	470	. .	370	. .	13.3	30 21 28.8	. .	+ 35.4	81 28 25.4	+ 1.3
14	328 54	5.3	1.1	3.6	4.1	23	950	870	. .	888	980	13.3	328 57 56.0	722	− 36.4	20 3 40.8	− 0.6
15	36 18	5.3	1.7	0.5	2.3	25	. .	246	. .	090	. .	13.3	36 21 36.6	781	+ 45.0	87 28 42.8	−21.6
16	33 54	28.6	24.9	23.6	25.3	24	176	082	. .	032	894	13.3	33 58 0.6	786	+ 41.3	85 5 3.1	+ 0.6
17	144 38	10.5	8.0	6.1	6.3	25	. .	736	. .	710	. .	13.3	144 41 22.8	813	− 43.7	86 25 42.1	+ 1.3
18	321 36	12.8	10.0	10.0	11.4	25	170	140	. .	940	860	13.3	321 39 32.5	. .	− 48.8	12 45 4.9	+ 1.7
19	18 16	13.3	9.0	7.0	9.6	23	. .	. .	. .	451	. .	13.3	18 19 54.9	. .	+ 20.4	69 26 36.5	− 1.9
20	7 20	5.1	1.0	0.6	2.7	23	. .	613	. .	480	. .	13.3	7 24 1.7	818	+ 8.0	58 30 30.9	− 1.8
21	52.42	11.4	7.7	6.0	8.5	25	. .	718	. .	590	. .	13.3	52 45 23.1	. .	+ 1 21.2	103 53 5.5	− 0.7
22	61 32	4.9	28.5	27.6	0.8	25	. .	733	. .	. .	. .	13.7	61 35 30.8	. .	+ 1 51.1	112 43 43.1	− 7.9
23	62 4	2.2	28.5	27.2	28.6	23	. .	. .	. .	778	826	13.7	62 7 59.8	714	+ 1 53.6	113 16 14.6	− 7.9
24	35 30	29.2	25.2	24.3	25.8	26	. .	111	. .	997	. .	14.0	35 33 30.1	745	+ 43.4	86 40 34.7	−21.8
25	33 54	1.7	28.1	26.9	28.2	23	843	827	. .	824	776	14.0	33 58 1.7	. .	+ 40.9	85 5 3.8	+ 1.2
26	38 18	8.0	3.3	1.9	4.8	23	202	084	. .	. .	. .	14.0	38 22 7.2	756	+ 48.2	89 29 16.6	− 1.2
27	38 18	8.0	3.3	1.9	4.8	25	. .	. .	. .	595	540	14.0	38 21 28.1	. .	+ 48.2	89 28 37.5	− 1.2
28	196 52	3.5	2.8	0.5	0.4	26	340	320	. .	252	128	14.0	196 55 20.4	. .	+ 18.6	34 10 42.2	− 1.0
29	34 6	7.0	3.1	0.8	3.5	24	. .	139	. .	026	. .	14.0	34 12 26.9	. .	+ 41.4	85 19 29.5	−23.9
30	34 36	7.8	3.8	1.7	4.3	26	. .	342	. .	155	. .	14.0	34 39 19.0	760	+ 42.1	85 46 22.3	− 0.2
31	33 52	7.8	3.7	0.8	3.9	24	. .	945	. .	831	. .	14.0	33 55 40.0	. .	+ 41.0	85 4 42.2	−23.4
32	310 14	5.2	2.0	1.6	4.2	23	580	569	545	572	572	14.0	310 18 1.1	. .	− 1 11.8	1 23 10.5	+ 0.2
33	47 40	5.2	2.0	29.6	2.4	22	. .	. .	553	. .	. .	14.0	47 44 17.4	. .	+ 1 7.0	98 51 45.6	− 0.4
34	329 16	5.0	2.0	1.2	3.9	28	. .	. .	478	509	519	14.0	329 18 45.6	760	− 36.2	20 24 30.6	+ 0.1
35	35 16	7.5	3.5	1.9	4.1	29	302	157	. .	992	010	14.2	35 18 35.3	763	+ 43.2	86 25 39.7	− 1.2
36	321 36	7.0	2.7	2.8	5.3	25	. .	710	640	626	. .	14.2	321 39 28.1	. .	− 48.3	12 45 1.0	− 1.9
37	190 26	6.5	4.9	2.9	2.1	24	. .	. .	643	580	475	14.2	190 29 43.7	. .	+ 11.3	40 36 26.2	− 2.3
38	52 42	6.8	3.5	1.4	3.8	25	. .	. .	782	. .	. .	14.2	52 45 26.7	770	+ 1 20.3	103 53 8.2	− 0.8
39	207 10	3.5	2.9	1.7	0.7	28	. .	880	. .	722	. .	14.3	207 12 42.1	776	+ 31.5	23 53 7.6	− 0.9
40	301 6	5.0	1.1	1.7	3.5	22	. .	. .	337	. .	. .	14.3	301 10 20.5	. .	− 1 40.7	352 15 1.0	− 0.7
41	186 54	8.1	7.1	5.5	5.0	24	. .	. .	150	220	935	14.3	186 57 48.9	. .	+ 7.5	44 8 24.8	− 0.6
42	40 6	6.2	1.9	0.3	3.0	23	. .	018	. .	910	. .	14.3	40 10 10.9	772	+ 51.6	91 17 23.7	− 0.2
43	148 26	9.0	6.3	4.3	4.7	24	. .	809	. .	670	. .	14.4	148 29 40.5	. .	− 37.4	82 37 18.1	− 0.8
44	329 28	5.2	2.1	1.9	4.1	20	868	730	. .	621	625	14.4	329 32 46.3	. .	− 35.9	20 38 31.6	− 0.2
45	16 14	10.9	6.5	4.6	7.2	20	385	305	. .	258	165	14.4	16 18 47.7	. .	+ 17.9	67 25 26.8	− 0.9
46	157 34	4.8	2.5	0.6	1.0	26	. .	919	. .	904	. .	14.4	157 37 11.1	. .	− 25.2	73 29 35.3	− 1.5
47	311 48	4.6	1.6	2.0	3.7	29	. .	. .	303	. .	320	14.4	311 40 33.8	772	− 1 8.5	2 45 46.5	− 0.5
48	146 38	6.1	3.8	1.2	2.0	29	. .	760	. .	616	. .	14.4	146 40 27.7	. .	− 40.2	84 26 33.7	− 0.2
49	169 24	3.2	1.2	29.6	28.8	28	. .	. .	443	410	355	14.6	169 26 49.3	770	− 11.4	71 39 43.3	− 1.1

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	′ ″

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Dec. 11	1	Venus II, S. . .	T.	.	14.6	17.5	19.2	25.4	27.5	29.5	36.0	37.5	40.1	54 27.48	− 0.39	. .	+30.02	14 54 57.11	− 0.47
	2	β Libræ	T.	.	13.5	16.1	17.7	24.0	26.0	28.0	34.3	35.8	38.3	9 25.97	− 0.36	+29.98	+30.02	15 9 55.63	+ 0.03
	3	α Coronæ Borealis .	T.	.	22.6	25.5	27.2	34.1	36.4	38.7	45.6	47.3	50.1	28 36.39	− 0.17	+30.08	+30.02	15 29 6.24	− 0.06
	4	α Serpentis . . .	T.	.	4.8	7.3	8.9	15.1	17.2	19.2	25.3	27.0	29.4	37 17.13	− 0.27	+30.03	+30.02	15 37 46.88	− 0.01
	5	Mercury II, (center)	T.	.	54.3	56.9	58.6	5.4	7.5	9.7	16.3	18.1	20.7	29 7.50	− 0.44	. .	+30.03	16 29 37.09	− 0.13
12	6	Sun I, N. . . .	T.	.	2.7	5.3	6.9	13.7	15.8	18.0	24.8	26.5	29.2	19 15.88	− 0.45	. .	+30.04	17 19 45.47	. .
	7	Sun II, S. . . .	T.	.	24.5	27.3	29.0	25.9	38.1	40.1	46.6	48.5	51.3	21 37.92	− 0.45	. .	+30.04	17 22 7.51	. .
	8	ζ Aquilæ . . .	T.	.	38.9	41.6	43.0	49.3	51.5	53.6	59.8	1.6	4.2	58 51.50	− 0.24	+30.01	+30.05	18 59 21.31	+ 0.08
	9	γ Aquilæ . . .	T.	.	17.7	20.3	21.8	28.1	30.1	32.3	38.4	40.1	42.6	39 30.16	− 0.25	+30.05	+30.06	19 39 59.97	+ 0.02
	10	β Aquilæ . . .	T.	.	8.6	11.2	12.8	18.9	21.1	23.1	29.0	30.7	33.2	48 20.96	− 0.27	+30.05	+30.06	19 48 50.75	+ 0.01
	11	β Ceti.	H.	2	17.7	20.5	22.0	28.4	30.7	32.8	39.3	40.8	43.5	36 30.63	− 0.42	. .	. .	. . . .	. .
	12	Anonymous . .	H.	2	36.5	39.0	40.5	46.6	48.7	50.8	56.9	58.5	1.0	50 48.72	− 0.28	. .	+30.01	0 51 18.45	+ 3.45
	13	Polaris	H.	3	. .	. .	12.0	36.0	1.0	24.0	48.0	. .	. .	11 0.52	+ 4.57	. .	+30.01	1 11 35.10	+ 0.12
	14	η Piscium . . .	H.	3	46.0	48.6	50.1	56.6	58.7	0.7	7.0	8.7	11.3	23 58.63	− 0.23	. .	. .	. . . .	. .
	15	ζ Arietis	T.	.	39.7	42.6	44.2	50.7	52.9	55.1	1.6	3.5	6.1	6 52.93	− 0.21	+30.11	+30.12	3 7 22.84	− 0.02
	16	Anonymous . .	T.	.	18.5	21.0	22.4	28.6	30.7	32.6	38.8	40.5	43.1	14 30.69	− 0.28	. .	+30.12	3 15 0.53	+ 2.80
	17	γ¹ Eridani . . .	T.	.	13.2	16.0	17.3	23.7	25.8	28.0	34.0	35.7	38.2	51 25.77	− 0.39	+30.15	+30.12	3 51 55.50	0.00
	18	Weisse III, 1210 .	T.	.	27.8	30.5	32.0	38.5	40.6	42.6	49.0	50.7	53.2	56 40.54	− 0.23	. .	+30.12	3 57 10.43	+ 2.99
14	19	Polaris	N.	1	. .	. .	57.0	23.0	48.0	13.0	39.0	. .	. .	10 51.94	+12.13	. .	+30.83	1 11 34.90	+ 1.29
	20	α Arietis, (R.) . .	N.	2	4.0	6.9	8.5	15.1	17.3	19.5	26.1	28.0	30.6	59 17.35	− 0.46	. .	+30.84	1 59 47.71	0.00
	21	ξ¹ Ceti	N.	3	20.7	23.4	24.7	31.0	33.2	35.2	41.3	42.9	45.5	5 33.10	− 0.37	+30.82	+30.84	2 6 3.57	+ 0.05
	22	α Ceti, (R.) . . .	N.	.	43.9	46.4	47.7	54.0	56.1	58.0	4.2	6.0	8.4	54 56.08	− 0.58	. .	+30.85	2 55 26.35	+ 0.15
	23	α Tauri, (R.) . . .	N.	2	. .	45.9	50.3	52.4	54.6	56.7	58.9	4.5	7.2	27 54.55	− 0.50	. .	+30.86	4 28 24.91	+ 0.09
	24	α Camelopard., (R.)	N.	2	. .	24.0	29.4	34.1	38.9	44.2	54.3	58.0	4.4	40 34.14	− 0.05	. .	+30.86	4 41 4.95	+ 0.40
	25	ι Aurigæ . . .	N.	1	43.2	46.3	48.0	55.3	57.8	0.2	7.6	9.4	13.3	47 57.79	− 0.16	+30.87	+30.86	4 48 28.49	− 0.04
	26	μ Geminorum . .	N.	2	18.6	21.5	23.0	29.6	32.0	34.3	40.8	42.4	45.0	14 31.91	− 0.25	+30.90	+30.88	6 15 2.54	− 0.02
17	27	Moon I. . . .	N.	2	47.8	50.4	51.9	58.4	0.8	2.9	9.5	11.0	13.8	44 0.72	− 0.64	. .	+31.24	20 44 31.32	+64.54
	28	Anonymous . .	N.	2	35.5	38.0	39.5	45.8	47.8	49.8	56.0	57.5	59.9	50 47.76	− 0.43	. .	+31.26	0 51 18.59	+ 3.50
	29	Neptune . . .	N.	3	21.5	24.2	25.5	31.8	33.9	35.9	42.0	43.5	46.0	55 33.81	− 0.44	. .	+31.26	0 56 4.63	
	30	ε Piscium . . .	N.	3	53.9	56.5	57.9	4.2	6.2	8.1	14.4	15.9	18.5	1 6.18	− 0.43	. .	+31.26	1 1 37.01	+ 3.33
	31	Polaris	N.	3	. .	. .	56.5	20.5	47.5	10.0	35.0	. .	. .	10 46.24	+14.32	. .	+31.26	1 11 31.82	+ 0.66
	32	Polaris, (R.) . .	N.	3	. .	. .	. .	. .	. .	. .	. .	. .	14.0	10 48.30	+11.68	. .	+31.26	1.11 31.24	+ 0.08
	33	η Piscium . . .	N.	3	. .	. .	. .	1.8	6.0	7.6	10.2	22.8	35.6	23 57.59	− 0.35	+31.18	+31.27	1 24 28.51	+ 0.14
	34	50 Cassiopeæ . . .	N.	3	9.0	17.3	22.1	42.2	48.5	55.0	14.5	19.4	27.5	51 8.39	+ 0.76	. .	+31.27	1 51 40.42	+ 0.14
	35	α Arietis	N.	4	3.7	6.4	8.0	14.7	16.9	19.1	25.7	27.3	30.0	59 16.87	− 0.38	. .	+31.27	1 59 47.76	+ 0.08
	36	ξ¹ Ceti	N.	4	20.3	22.9	24.3	30.5	32.6	34.7	40.8	42.4	45.0	5 32.61	− 0.41	+31.33	+31.27	2 6 3.47	− 0.03
	37	γ Ceti.	N.	3	47.9	50.5	51.9	58.1	0.2	2.2	8.3	9.9	12.4	36 0.16	− 0.45	+31.28	+31.27	2 36 30.98	− 0.01
	38	α Ceti, (R.) . . .	N.	4	45.8	47.3	51.4	53.5	55.5	57.6	59.6	3.7	5.3	54 55.52	− 0.53	. .	+31.27	2 54 26.26	+ 0.07
	39	48 (H) Cephei . . .	N.	3	23.9	35.6	42.3	10.7	20.0	29.1	57.0	3.8	15.2	3 19.73	− 0.27	. .	+31.28	3 3 51.14	− 0.02
	40	Anonymous . .	N.	3	17.2	19.6	21.6	27.7	29.7	31.8	37.9	39.4	41.9	14 29.64	− 0.43	. .	+31.28	3 15 0.49	+ 2.90
	41	γ Ursæ Min., S. P. .	N.	2	3.5	55.0	50.4	29.8	23.1	16.9	56.2	51.6	43.0	20 23.28	− 1.42	. .	+31.28	15 20 53.14	+ 0.34
	42	15 Draconis, S. P. .	N.	1	15.3	8.1	4.1	46.8	40.9	35.5	18.4	14.2	6.8	27 41.12	− 1.27	. .	+31.28	16 28 11.13	+ 0.10
	43	α Camelopard., (R.).	N.	3	3.0	9.5	12.8	28.3	33.3	38.2	53.3	57.1	3.3	40 33.20	+ 0.23	. .	+31.29	4 41 5.12	+ 0.55
	44	Weisse IV, 1068 .	N.	3	34.0	36.9	38.5	45.5	47.7	49.8	56.6	58.4	1.2	47 47.62	− 0.26	. .	+31.29	4 48 18.65	+ 3.11
	45	11 Orionis . . .	N.	3	22.0	24.6	26.2	32.6	34.7	36.7	43.1	44.7	47.3	56 34.66	− 0.35	+31.31	+31.29	4 57 5.60	− 0.06
	46	α Aurigæ, (R.) . .	N.	3	13.2	16.9	18.9	27.7	30.7	33.6	42.4	44.6	48.2	6 30.69	− 0.16	. .	+31.29	5 7 1.82	+ 0.04
	47	β Tauri, (R.) . . .	N.	3	16.4	19.4	21.0	28.2	30.5	32.7	39.7	41.4	44.3	17 30.40	− 0.34	. .	+31.29	5 18 1.35	+ 0.05
	48	α Orionis . . .	N.	3	22.1	24.8	26.2	32.4	34.5	36.5	42.7	44.2	46.9	47 34.48	− 0.42	+31.27	+31.29	5 48 5.35	+ 0.02
	49	22 Camelopardalis .	N.	4	. .	43.0	49.0	54.7	0.3	6.4	17.8	22.0	29.0	3 54.62	+ 0.36	. .	+31.29	6 4 26.27	− 0.02

12.28.40.44. Wire A used.
15. Seems five revs. wrong in N. P. D.
32. Bisections at 18^m 20^s and 19^m 14^s, clock time.
33. Transit over wires C_5, D, VI, and VII.
34.39.49. Bisections at sets B and D.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	53 26	4.9	1.3	1.4	3.3	24	. .	992	. .	440	. .	14.6	53 32 18.6	878	+ 1 24.5	104 40 4.3	− 5.7
2																	
3	11 40	6.5	3.8	3.0	7.0	23	. .	810	. .	043	. .	14.6	11 43 54.4	873	+ 13.0	62 50 28.6	+ 1.8
4																	
5	60 26	9.5	6.2	4.8	9.0	24	. .	000	. .	736	. .	14.6	60 29 52.7	865	+ 1 50.1	111 38 4.0	− 5.6
6	61 42	0.1	26.2	25.5	26.8	29	680	742	. .	. .	. .	14.6	61 44 34.6	843	+ 1 55.3	112 42 51.1	− 7.9
7	62 14	28.6	24.6	24.1	26.1	27	. .	. .	. .	412	402	14.6	62 17 8.8	. .	+ 1 58.0	113 25 28.0	− 7.9
8	25 10	3.7	28.6	27.3	1.7	28	. .	813	. .	748	. .	14.6	25 12 44.8	831	+ 29.2	76 19 35.2	− 0.2
9	28 32	12.2	7.6	7.6	11.6	26	. .	490	. .	249	. .	14.6	28 35 12.3	829	+ 33.8	79 42 7.3	+ 0.9
10	32 44	10.8	6.8	4.5	8.5	25	. .	429	. .	370	. .	14.6	32 47 59.7	835	+ 40.0	83 55 0.9	+ 1.2
11	57 32	0.9	28.0	27.0	28.8	29	. .	610	. .	524	. .	14.6	57 34 34.2	870	+ 1 38.2	108 42 33.6	− 1.1
12	34 6	5.7	2.5	1.5	3.0	24	. .	295	. .	100	. .	14.6	34 12 26.1	874	+ 42.6	85 19 29.9	−24.0
13	310 14	29.0	26.4	27.5	28.4	23	968	913	906	902	935	14.6	310 18 1.7	875	+ 1 13.8	1 23 9.1	− 0.8
14	24 10	6.8	2.6	2.7	4.2	27	450	440	. .	319	291	14.6	24 13 2.6	877	+ 28.2	75 19 52.0	0.0
15	18 16	12.2	7.4	7.5	8.8	18	. .	553	. .	400	. .	14.6	18 21 13.7	898	+ 20.9	69 27 55.8	+77.4
16	33 22	9.5	4.5	3.0	5.3	18	. .	510	. .	290	. .	14.6	33 26 17.1	. .	+ 41.9	84 33 20.2	−20.4
17	52 42	6.9	2.8	2.9	4.4	. .	. .	. .	. .	920	. .	14.6	52 45 23.7	. .	+ 1 23.1	103 53 8.0	− 1.7
18	22 34	6.8	3.0	2.8	4.8	26	066	184	. .	018	940	14.6	22 36 22.6	920	+ 26.4	73 43 10.2	−16.3
19																	
20	163 54	2.5	29.8	28.1	28.6	27	214	160	. .	064	021	13.3	163 57 9.3	. .	− 17.6	67 9 29.5	− 1.4
21	30 36	8.1	4.3	2.5	4.8	26	. .	. .	317	. .	. .	13.3	30 39 16.5	772	+ 36.3	81 46 14.0	− 0.1
22	144 38	3.4	1.6	0.1	0.2	26	. .	000	. .	970	. .	13.3	144 41 25.4	771	− 43.3	86 25 39.1	− 2.1
23	157 18	5.0	2.6	0.5	1.1	26	. .	. .	385	361	304	13.3	157 21 17.9	770	− 25.5	73 45 28.8	− 0.5
24	207 10	6.4	6.2	4.9	3.4	28	502	519	. .	420	. .	13.3	207 12 42.5	. .	+ 31.4	23 53 7.3	− 0.2
25	5 52	3.8	29.2	29.2	0.8	22	. .	. .	635	570	574	13.3	5 56 17.2	. .	+ 6.4	57 2 44.8	− 0.5
26	16 14	7.3	3.0	2.1	3.9	20	550	512	. .	365	385	13.3	16 18 47.2	. .	+ 17.9	67 25 26.3	− 1.4
27																	
28	34 6	11.0	7.9	4.8	7.0	23	. .	. .	. .	690	690	11.7	34 12 25.8	. .	+ 40.0	85 19 27.0	−24.4
29	34 36	8.8	5.4	2.4	4.6	23	. .	. .	. .	180	160	11.7	34 40 1.7	610	+ 40.7	85 47 3.6	− 0.2
30	33 52	11.0	7.5	3.9	6.5	24	. .	439	. .	325	. .	11.7	33 55 42.3	. .	+ 39.6	85 2 43.1	−23.5
31	310 14	7.5	4.4	3.4	5.5	23	. .	. .	640	. .	. .	11.7	310 17 55.6	. .	− 1 9.3	1 23 7.5	− 1.2
32	229 38	4.7	3.4	1.7	1.4	23	095	015	. .	. .	. .	11.7	229 42 4.2	. .	+ 1 9.3	1 23 7.7	− 1.0
33																	
34	327 4	7.2	3.1	3.0	5.4	27	403	401	. .	348	380	11.7	327 6 59.1	. .	− 38.0	18 12 42.3	− 2.5
35	163 54	6.0	3.8	1.1	2.0	27	025	988	. .	869	880	11.7	163 57 6.9	. .	− 16.9	67 9 31.2	+ 0.3
36	30 36	10.5	6.2	3.2	6.4	26	. .	. .	025	. .	. .	11.7	30 39 17.8	608	+ 34.9	81 46 13.9	− 0.4
37	36 8	12.2	7.9	4.5	7.8	22	775	725	. .	621	610	11.7	36 12 7.3	610	+ 43.1	87 19 11.6	− 1.7
38	144 38	9.5	7.6	4.0	4.2	25	762	791	. .	635	675	11.7	144 41 22.7	. .	− 41.7	86 25 40.2	− 1.3
39	321 36	8.4	4.0	4.0	6.5	25	690	700	. .	601	638	11.7	321 39 24.4	. .	− 46.5	12 44 59.1	− 1.9
40	33 20	8.9	5.6	1.8	5.4	24	. .	352	. .	280	. .	11.7	33 26 19.2	. .	+ 38.8	84 33 19.2	−20.8
41	291 10	9.2	6.3	6.3	7.8	22	. .	856	825	690	. .	11.7	291 14 5.7	601	− 2 30.1	342 17 56.8	− 2.0
42	287 56	7.6	4.8	3.2	4.8	24	. .	396	365	250	. .	11.7	287 59 44.5	608	− 2 58.8	339 3 6.9	− 1.3
43	207 10	8.0	7.2	4.5	4.5	28	170	206	. .	098	015	11.7	207 12 45.0	. .	+ 30.3	23 53 5.9	− 0.8
44	14 10	10.8	7.2	5.3	7.5	28	. .	. .	946	921	. .	11.7	14 15 6.0	. .	+ 15.0	65 21 42.2	−12.4
45	23 36	12.0	7.9	4.9	7.5	22	465	. .	. .	. .	312	11.7	23 40 12.0	610	+ 25.8	74 46 59.0	− 0.2
46	186 54	9.5	8.3	5.4	5.6	23	900	915	. .	810	732	11.7	186 57 50.0	. .	+ 7.2	44 8 24.0	− 0.4
47	169 32	11.5	9.4	6.3	6.1	22	. .	. .	920	852	821	11.7	169 36 3.4	. .	− 10.8	61 30 28.6	− 0.8
48	31 26	12.7	8.6	5.4	8.1	21	760	686	. .	628	590	11.7	31 30 22.3	591	+ 35.9	82 37 19.4	− 0.4
49	329 30	9.5	5.2	4.8	6.8	28	397	419	. .	349	329	11.7	329 32 42.0	. .	− 34.5	20 38 28.7	− 1.3

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

MOON'S—

No.	Parallax.	Semi-diam.
	′ ″	′ ″

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
1868.														m. s.	s.	s.	s.	h. m. s.	s.
Dec. 17	1	δ Ursæ Min., S. P.	N.	3	. .	. .	. .	. .	. .	. .	35.5	9.7	. .	13 53.45	− 6.36	. .	+31.30	18 14 18.39	− 0.25
	2	Anonymous	N.	3	41.6	45.3	47.2	56.2	59.0	1.7	10.6	13.0	16.2	14 58.98	− 0.03	. .	+31.30	6 15 30.25	+ 3.71
	3	γ Geminorum	N.	4	25.4	28.1	29.6	36.0	38.1	40.1	46.6	48.3	51.0	29 38.13	− 0.33	+31.30	+31.30	6 30 9.10	0.00
	4	Anonymous	N.	3	25.2	26.9	31.7	34.2	36.6	38.8	41.3	46.3	47.9	59 36.54	− 0.20	. .	+31.30	7 0 7.64	+ 3.43
	5	Uranus I, S.	N.	3	. .	. .	44.0	46.2	48.3	50.5	52.8	. .	. .	9 48.37	− 0.28	. .	+31.30	7 10 19.39	. .
	6	Uranus II, N.	N.	3	35.4	38.2	39.8	. .	. .	. .	57.5	59.2	1.8	9 48.64	− 0.28	. .	+31.30	7 10 19.66	. .
	7	Weisse VII, 393	N.	3	31.4	34.3	36.2	43.3	45.6	47.9	55.0	56.7	59.7	13 45.57	− 0.21	. .	+31.30	7 14 16.66	+ 3.45
	8	Venus II, S.	F.	3	. .	. .	. .	. .	11.8	15.1	16.2	17.3	18.3	23 46.39	− 0.66	. .	+31.27	15 24 17.00	− 0.47
	9	α Serpentis	F.	3	4.0	6.5	8.0	14.1	16.2	18.2	24.4	26.0	28.5	37 16.21	− 0.44	+31.24	+31.27	15 37 47.04	+ 0.05
	10	δ Ophiuchi	F.	4	43.9	46.5	47.9	54.2	56.2	58.2	4.3	5.9	8.4	6 56.17	− 0.53	+31.25	+31.27	16 7 26.91	+ 0.04
	11	α Scorpii	F.	3	. .	45.5	47.8	50.0	52.3	54.7	59.1	0.8	2.8	20 50.07	− 0.76	+31.17	+31.27	16 21 20.58	+ 0.12
18	12	Sun I, N.	F.	.	36.6	39.3	41.0	47.9	50.1	52.1	58.7	0.5	3.6	45 49.98	− 0.71	. .	+31.29	17 46 20.56	. .
	13	Sun II, S.	F.	.	59.5	2.3	3.7	10.3	12.6	14.8	21.6	23.3	26.1	48 12.68	− 0.71	. .	+31.29	17 48 43.26	.
	14	Moon I, S.	F.	4	1.5	4.1	5.8	12.4	14.6	16.6	22.9	24.8	27.4	34 14.46	− 0.64	. .	+31.32	21 34 45.14	+63.36
	15	α Aquarii	F.	3	18.6	21.4	22.8	29.2	31.0	33.0	39.3	40.6	43.2	58 31.01	− 0.50	+31.29	+31.32	21 59 1.83	+ 0.02
	16	ε Piscium	H.	3	25.2	27.7	29.2	35.5	37.4	39.6	45.7	47.3	49.9	55 37.50	− 0.44	. .	. .	. . .	. .
	17	Polaris	H.	3	. .	. .	53.0	18.0	42.0	6.0	30.0	. .	. .	10 42.14	+13.52	. .	+31.37	1 11 27.03	− 3.23
	18	η Piscium	H.	3	44.8	47.3	48.9	55.3	57.3	59.4	5.9	7.5	10.0	23 57.38	− 0.37	. .	. .	. . .	. .
	19	ζ Arietis	F.	.	38.8	41.5	43.0	49.6	52.0	54.0	0.7	2.2	4.7	6 51.83	− 0.32	+31.31	+31.37	3 7 22.88	+ 0.03
	20	α Persei, (R.)	F.	.	9.7	13.5	15.8	25.2	28.4	31.4	40.9	43.2	47.2	14 28.37	− 0.15	. .	+31.37	3 14 59.59	− 0.21
	21	Weisse III, 400	F.	.	5.3	7.7	9.2	15.4	17.6	19.6	25.6	27.1	29.9	23 17.49	− 0.45	. .	+31.37	3 23 48.41	+ 2.85
	22	η Tauri	F.	3	58.0	0.9	2.5	9.1	11.3	13.7	20.4	22.0	24.8	39 11.41	− 0.29	+31.37	+31.37	3 39 42.49	+ 0.01
	23	γ Tauri	F.	3	37.1	39.9	41.4	47.9	50.0	51.8	58.3	0.0	2.5	11 49.88	− 0.37	+31.39	+31.38	4 12 20.89	+ 0.01
	24	11 Orionis	F.	.	21.9	24.5	26.0	32.5	34.6	36.6	42.9	44.7	47.1	56 34.53	− 0.37	+31.46	+31.38	4 57 5.54	− 0.12
	25	Weisse V, 53	F.	.	. .	. .	. .	. .	8.7	12.3	13.3	14.4	15.7	3 42.06	− 0.29	. .	+31.38	5 4 13.15	+ 3.10
	26	966 Groombridge	F.	.	. .	. .	28.7	36.5	44.6	52.1	0.1	. .	. .	21 44.43	+ 0.89	. .	+31.39	5 22 16.51	− 0.60
	27	Weisse V, 686	F.	.	4.8	7.9	10.1	17.6	20.3	22.7	30.3	32.1	35.4	24 20.13	− 0.17	. .	+31.39	5 24 51.35	+ 3.37
	28	ε Orionis	F.	.	. .	. .	. .	. .	28.3	31.2	32.3	33.3	34.3	29 3.74	− 0.51	+31.35	+31.39	5 29 34.62	+ 0.05
	29	α Orionis, (R.)	F.	.	22.0	24.6	26.0	30.3	34.4	38.2	42.6	44.1	46.7	47 34.32	− 0.52	. .	+31.39	5 48 5.19	− 0.16
	30	22 Camelopardalis	F.	3	. .	. .	42.0	48.1	53.9	59.0	5.0	. .	. .	3 58.63	+ 0.54	. .	+31.39	6 4 25.56	+ 0.25
	31	δ Ursæ Minoris, S. P.	F.	3	. .	. .	0.0	27.0	52.0	18.5	42.5	. .	. .	13 51.88	− 6.02	. .	+31.40	18 14 17.26	− 1.26
	32	δ Canis Minoris	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	33	Uranus	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	34	Weisse VII, 393	F.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	35	α Canis Minoris	F.	.	43.7	46.0	47.7	54.0	55.9	58.1	4.0	5.7	8.2	31 55.92	− 0.45	+31.57	+31.41	7 32 26.88	− 0.18
	36	ε Draconis, S. P.	F.	.	. .	. .	15.6	9.5	3.5	57.9	51.9	. .	. .	48 3.66	− 1.27	. .	+31.41	19 48 33.80	+ 0.45
	37	15 Argus	F.	.	14.6	17.5	19.0	25.7	27.9	30.2	37.0	38.6	41.4	1 27.99	− 0.73	+31.41	+31.41	8 1 58.67	− 0.02
	38	F Præsepe	F.	3	27.0	29.5	31.2	37.8	40.1	42.2	48.5	50.4	53.0	31 39.97	− 0.32	. .	+31.42	8 32 11.07	+ 3.39
	39	L Præsepe	F.	3	34.4	37.0	38.6	45.2	47.5	49.6	56.1	57.8	0.6	33 47.42	− 0.32	. .	+31.42	8 34 18.52	+ 3.38
	40	Venus II, S.	T.	.	30.5	33.3	35.0	41.3	43.4	45.5	51.9	53.6	56.4	28 43.43	− 0.66	. .	+31.49	15 29 14.26	− 0.46
	41	α Serpentis	T.	.	3.7	6.3	7.8	14.0	16.0	18.0	24.2	25.8	28.4	37 16.02	− 0.44	+31.46	+31.49	15 37 47.07	+ 0.03
	42	Mercury, S.	T.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
19	43	Sun I, S.	T.	.	3.2	5.9	7.6	14.4	16.8	18.7	25.5	27.0	30.0	50 16.57	− 0.73	. .	+31.52	17 50 47.36	. .
	44	Sun II, N.	N.	.	25.6	28.3	29.8	36.6	38.8	41.2	48.0	49.6	52.4	52 38.92	− 0.73	. .	+31.52	17 53 9.71	. .
	45	γ Aquilæ	T.	.	16.5	19.0	20.5	26.7	29.0	30.7	37.2	38.7	41.3	39 28.84	− 0.41	+31.52	+31.54	19 39 59.97	+ 0.03
	46	α Aquilæ	T.	.	38.0	40.7	42.1	48.3	50.4	52.5	58.6	0.3	2.7	43 50.40	− 0.43	+31.55	+31.54	19 44 21.51	0.00
	47	π Aquarii	T.	.	54.5	58.6	0.6	2.7	4.7	6.8	10.9	12.4	15.0	18 2.70	− 0.49	+31.61	+31.57	22 18 53.78	− 0.05
	48	Moon I, S.	T.	3	28.8	31.4	33.0	39.4	41.5	43.7	50.1	51.7	54.4	22 41.56	− 0.61	. .	+31.57	22 23 12.52	+62.37
	49	α Ceti, (R.)	T.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . .	. .
	50	ζ Arietis	T.	.	38.3	41.2	42.7	49.4	51.5	53.6	0.2	2.0	4.6	6 51.50	− 0.32	+31.63	+31.63	3 7 22.81	− 0.03

1.26.36.48. Bisections at sets B and D.
2. Wire A used.
8.25.28. Transit over set E.
14. Transit over wires C_1, C_3, and C_5.
34. Wire B used.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° ′	r. ″	″	″	″							″	° ′ ″		′ ″	° ′ ″	″
1	305 28	8.1	4.9	4.1	5.3	25	. .	. .	. .	263	284	11.7	305 31 29.1	. .	− 1 21.7	356 36 28.6	+ 0.1
2	353 26	11.0	6.6	5.1	7.1	23	. .	225	. .	215	. .	11.7	353 32 34.2	577	− 6.6	44 38 48.8	− 7.3
3	22 20	12.0	7.8	4.8	7.4	27	740	669	. .	556	597	11.7	22 22 51.7	569	+ 24.0	73 29 36.9	− 0.2
4	8 0	9.2	5.0	3.4	5.7	30	. .	. .	. .	070	006	11.7	8 2 16.4	. .	+ 8.2	59 8 45.8	− 3.5
5	15 56	12.0	7.8	4.5	7.8	25	956	. .	. .	. .	770	11.7	15 59 19.2	. .	+ 16.7	67 5 57.1	− 0.1
6	15 56	12.0	7.8	4.5	7.8	26	. .	162	. .	045	. .	11.7	15 59 15.3	. .	+ 16.7	67 5 53.2	− 0.1
7	8 46	10.0	6.2	4.8	6.6	26	. .	115	. .	005	. .	11.7	8 49 17.1	574	+ 9.1	59 55 47.4	− 2.5
8	55 34	7.2	9.2	10.0	8.9	21	. .	. .	. .	. .	252	11.8	55 38 27.1	628	+ 1 26.3	106 46 14.6	− 5.7
9	31 58	10.5	7.7	5.9	8.0	21	232	164	. .	002	070	11.8	32 2 31.5	626	+ 37.0	83 9 29.7	+ 1.6
10	42 10	10 17.4	13.9	12.1	13.1	23	361	288	. .	202	156	11.8	42 13 52.7	628	+ 53.6	93 21 7.5	− 0.2
11	64 56	9.8	7.6	5.8	7.7	24	635	. .	. .	. .	365	11.8	64 59 39.7	628	+ 2 6.1	116 8 7.0	+ 1.7
12	61 58	11.0	8.3	6.5	8.6	26	811	834	. .	. .	. .	11.8	62 1 4.5	. .	+ 1 50.6	113 9 16.3	− 7.9
13	62 30	11.0	7.6	5.0	8.3	24	. .	. .	. .	826	830	11.8	62 33 33.4	620	+ 1 53.2	113 41 47.8	− 8.0
14	54 27	8 8.7	4.5	1.7	4.4	23	. .	548	600	688	. .	11.8	54 30 56.5	632	+ 1 22.9	105 38 40.6	
15	39 46	14.3	10.9	8.0	10.2	22	498	485	. .	295	298	11.8	39 50 9.1	638	+ 49.4	90 57 19.7	+ 0.8
16	31 38	11.7	8.9	5.3	7.9	22	. .	942	. .	883	. .	11.5	31 42 3.4	700	+ 37.1	82 49 1.7	+ 0.5
17	310 14	7.6	4.6	4.0	5.2	23	470	443	460	440	460	11.5	310 17 58.2	698	− 1 10.8	1 23 8.6	+ 0.1
18	24 10	11.2	7.0	4.5	6.4	26	. .	991	. .	876	. .	11.5	24 13 3.0	699	+ 27.0	75 19 51.2	− 1.0
19	18 16	10 10.3	6.2	4.2	6.3	23	452	405	. .	305	322	11.5	18 19 58.1	. .	+ 20.1	69 26 39.4	+ 1.0
20	190 26	9.4	8.0	5.3	4.1	24	. .	. .	. .	038	016	11.5	190 29 46.3	742	+ 11.3	40 36 23.6	− 3.6
21	33 6	10 14.4	10.8	8.0	9.9	27	. .	. .	. .	534	529	11.5	33 8 49.3	. .	+ 39.7	84 15 50.2	−20.3
22	15 8	10 14.5	10.5	8.4	10.6	24	725	611	. .	464	496	11.5	15 11 35.5	746	+ 16.5	66 18 13.2	+ 0.6
23	23 32	12.0	8.7	5.5	7.1	27	970	925	. .	821	825	11.5	23 34 47.5	754	+ 26.6	74 41 35.3	+ 0.5
24	23 36	11.2	7.1	4,6	6.8	22	508	472	. .	330	395	11.5	23 40 11.9	772	+ 26.8	74 46 59.9	+ 1.7
25	14 42	9.1	6.2	3.3	6.0	21	. .	. .	. .	. .	152	11.5	14 46 31.5	. .	+ 16.1	65 53 8.8	−11.4
26	323 54	6.6	8.0	2.9	5.0	25	268	244	. .	. .	. .	11.5	323 57 30.0	. .	− 44.5	15 3 6.7	+ 3.0
27	2 28	13.3	10.6	8.6	10.0	22?	. .	. .	. .	702	688	11.5	2 32 3.8	. .	+ 2.7	53 38 27.7	− 9.7
28	40 6	11.7	9.6	5.8	7.7	22	. .	. .	. .	. .	248	11.5	40 10 11.9	. .	+ 51.6	91 17 24.7	− 0.3
29	148 26	8.7	6.4	3.3	3.4	24	. .	625	. .	595	. .	11.5	148 29 40.3	. .	− 37.5	82 37 18.4	− 1.3
30	329 30	8.4	4.8	3.7	5.7	28	280	310	. .	320	195	11.5	329 32 44.2	. .	− 36.1	20 38 29.3	− 0.4
31	305 28	10.3	7.6	7.3	8.5	24	770	780	772	767	742	11.5	305 31 34.9	784	− 1 25.7	356 36 30.4	+ 2.2
32	64 58	6.1	7.0	29.8	3.5	20	488	460	. .	300	258	11.5	65 2 46.1	. .	+ 2 11.4	116 11 18.7	+ 3.2
33	15 54	6.7	3.3	1.2	4.1	16	. .	. .	. .	. .	845	11.5	15 59 39.5	. .	+ 17.6	67 6 18.3	− 0.1
34	8 46	8.3	5.5	5.3	5.7	16	. .	326	. .	115	. .	11.5	8 49 18.6	. .	+ 9.5	59 55 49.3	− 2.5
35	33 16	11.7	8.2	5.9	7.4	24	948	915	. .	728	712	11.5	33 19 34.2	. .	+ 40.4	84 26 35.8	+ 0.9
36	288 48	9.6	7.3	6.9	7.7	19	430	442	. .	. .	. .	11.5	288 52 57.1	798	− 2 58.5	339 56 19.8	+ 3.9
37	62 44	9.1	6.8	4.0	6.4	25	. .	912	. .	888	. .	11.5	62 47 19.3	798	+ 1 59.2	113 55 39.7	− 1.5
38	18 36	10.3	6.9	5.1	8.4	26	650	665	. .	. .	. .	11.5	18 39 8.0	. .	+ 20.8	69 45 50.0	+ 5.4
39	18 30	8.1	4.7	2.3	4.8	26	. .	991	. .	996	. .	11.5	18 33 4.5	808	+ 20.7	69 39 46.4	+ 5.5
40	55 54	18.1	14.0	13.2	14.2	22	692	760	. .	684	594	10.0	55 57 58.7	786	+ 1 30.6	107 5 50.5	− 5.7
41	31 58	21.4	17.5	15.9	18.0	20	. .	553	. .	560	. .	10.0	32 2 28.0	787	+ 38.4	83 9 27.6	− 0.8
42	62 28	15.8	11.6	11.1	12.5	20	410	400	. .	336	280	10.0	62 32 36.2	757	+ 1 56.8	113 40 54.2	− 5.5
43	62 30?	12 11.5	8.2	4.7	7.8	24	610	638	. .	. .	. .	10.0	62 32 36.8	752	+ 1 56.7	113 40 54.7	− 8.0
44	61 58?	13 7.1	4.2	0.0	3.7	24	. .	. .	. .	978	012	10.0	62 0 1.2	. .	+ 1 54.0	113 8 16.4	− 7.9
45	28 32	19.6	15.4	13.5	15.5	25	. .	730	. .	558	. .	10.0	28 35 12.5	. .	+ 33.0	79 42 6.7	− 0.7
46	30 18	25.4	22.1	19.5	21.3	24	. .	304	. .	225	. .	10.0	30 21 27.5	728	+ 35.5	81 28 24.2	− 1.6
47	38 6	22.1	17.9	15.9	17.5	22	. .	351	. .	250	. .	10.1	38 10 1.3	. .	+ 48.0	89 17 10.5	− 2.2
48	51 14	16.1	11.3	9.1	10.5	19	. .	850	910	090	. .	10.1	51 18 43.8	768	+ 1 16.1	103 6 21.1	
49	144 38	18.3	16.1	14.0	12.6	25	. .	023	. .	918	. .	10.4	144 41 23.9	798	− 43.6	86 25 40.9	− 0.7
50	18 16	15.8	11.7	10.3	11.6	22	. .	960	. .	038	. .	10.4	18 19 57.1	. .	+ 20.4	69 26 38.7	+ 0.3

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	′ ″	′ ″
14	−44 2.4	−14 49.1
48	−42 7.8	−14 47.4

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
														m. s.	s.	s.	s.	h. m. s.	"
1868. Dec. 19	1	α Persei, (R.)	T.	.	. .	. .	. .	. .	. .	. .	41.0	43.3	47.2	14 28.45	− 0.15	. .	+31.63	3 14 59.93	+ 0.13
	2	Weisse III, 400	T.	.	5.0	7.5	9.0	15.2	17.2	19.2	25.4	26.9	29.4	23 17.20	− 0.45	. .	+31.63	3 23 48.38	+ 2.55
	3	η Tauri	T.	.	57.8	0.6	2.2	8.8	11.1	13.3	20.1	21.7	24.6	39 11.13	− 0.29	+31.65	+31.64	3 39 42.48	0.00
	4	ε Ursæ Minoris, S.P.	T.	.	23.0	2.0	51.0	24.0	6.0	. .	. .	. .	. .	58 51.54	− 3.88	. .	+31.65	16 59 19.31	− 0.79
21	5	Sun I, N.	N.	2	55.7	58.4	0.1	6.8	9.0	11.2	17.7	19.6	22.3	59 8.98	− 0.84	. .	+32.15	17 59 40.29	. .
	6	Sun II, S.	N.	2	18.1	21.0	22.5	29.4	31.5	33.7	40.4	42.2	44.9	1 31.32	− 0.84	. .	+32.15	18 2 2.83	. .
	7	δ Ursæ Minoris	N.	.	. .	. .	. .	38.0	11.5	45.5	55.2	22.0	4.3	13 37.40	+ 7.71	. .	+32.15	18 14 17.26	− 1.07
	8	Moon I, S.	N.	4	8.5	11.1	12.6	18.9	21.0	23.1	29.4	30.8	33.4	56 20.98	− 0.61	. .	+32.24	23 56 52.61	+61.55
	9	Jupiter I, S.	N.	4	25.5	28.0	29.5	. .	. .	. .	45.7	47.4	49.9	20 37.67	− 0.55	. .	+32.25	0 21 9.37	. .
	10	Jupiter II, N.	N.	3	. .	. .	36.3	38.3	40.5	42.4	44.5	. .	. .	20 40.41	− 0.55	. .	+32.25	0 21 12.11	. .
	11	Neptune	N.	3	20.2	21.6	25.8	27.9	30.0	31.9	34.0	38.0	39.5	55 29.88	− 0.52	. .	+32.26	0 56 1.62	. .
	12	ε Piscium	N.	4	53.0	55.5	57.0	3.2	5.2	7.3	13.5	15.0	17.6	1 5.26	− 0.50	. .	+32.26	1 1 37.02	+ 3.50
	13	Polaris	N.	.	. .	. .	55.5	49.0	12.5	37.0	1.0	26.0	. .	10 36.60	+19.41	. .	+32.26	1 11 28.27	+ 0.70
	14	θ Ceti	N.	.	44.3	46.9	48.4	54.6	56.6	58.7	4.9	6.5	9.0	16 56.66	− 0.65	+32.15	+32.26	1 17 28.27	+ 0.11
	15	A Cassiopeæ	N.	4	24.6	21.9	36.2	54.0	59.5	5.6	23.0	27.6	34.7	20 59.68	+ 0.85	. .	+32.26	1 21 32.79	− 0.02
	16	ξ¹ Ceti	N.	4	19.4	22.0	23.5	29.7	31.8	33.8	40.0	41.6	44.2	5 31.78	− 0.48	+32.19	+32.27	2 6 3.57	+ 0.11
	17	α Ceti, (R.)	N.	1.2	42.2	44.8	46.3	52.4	54.5	56.6	2.6	4.2	6.8	54 54.49	− 0.61	. .	+32.29	2 55 26.17	0.00
	18	48 (H) Cephei	N.	2	22.4	34.2	40.9	8.8	17.9	27.2	55.4	2.0	13.0	3 17.98	+ 1.69	. .	+32.29	3 3 51.96	− 0.03
	19	ζ Arietis	N.	2	37.8	40.5	42.3	48.7	50.9	53.0	59.6	1.2	4.0	6 50.89	− 0.34	+32.25	+32.29	3 7 22.84	+ 0.01
	20	α Persei, (R.)	N.	2	8.7	12.9	14.9	24.4	27.6	30.7	40.1	42.5	46.3	14 27.57	− 0.06	. .	+32.29	3 14 59.80	+ 0.02
	21	γ Tauri	N.	2	. .	44.7	46.9	48.9	50.8	53.2	57.4	59.0	1.7	11 48.92	− 0.39	+32.37	+32.30	4 12 20.83	− 0.05
	22	Anonymous	N.	3	6.4	9.4	11.0	17.8	20.2	22.3	29.0	30.5	33.3	29 19.99	− 0.30	. .	+32.30	4 29 51.99	+ 3.07
	23	α Camelopard., (R.)	N.	2	1.6	8.2	11.6	27.0	32.2	36.9	52.1	56.0	2.0	40 31.96	+ 0.48	. .	+32.31	4 41 4.75	+ 0.15
	24	11 Orionis	N.	3	23.5	25.0	29.2	31.6	33.6	35.7	37.9	42.2	43.7	56 33.60	− 0.39	+32.43	+32.31	4 57 5.52	− 0.16
	25	β Orionis, (R.)	N.	2	31.2	33.8	35.3	41.6	43.6	45.6	51.7	53.4	56.0	7 43.58	− 0.73	. .	+32.32	5 8 15.17	+ 0.03
	26	966 Groombridge	N.	3	. .	. .	27.7	35.5	43.5	51.0	59.0	. .	. .	21 43.37	+ 1.35	. .	+32.32	5 22 17.04	− 0.11
	27	Weisse V, 686	N.	3	4.0	7.1	8.8	16.5	19.0	21.6	29.3	31.1	34.3	24 19.08	− 0.14	. .	+32.32	5 24 51.26	+ 3.34
	28	α Columbæ	N.	2	9.3	12.3	14.3	21.7	24.2	26.7	34.0	35.8	38.9	34 24.13	− 1.01	. .	+32.32	5 34 55.44	− 0.06
	29	α Orionis	N.	4	21.2	23.7	25.3	31.4	33.5	35.6	41.7	43.3	45.8	47 33.50	− 0.49	+32.37	+32.33	5 48 5.34	− 0.04
	30	Anonymous	N.	3	38.8	41.8	43.2	49.6	51.7	53.7	0.0	1.7	4.2	52 51.63	− 0.40	. .	+32.33	5 53 23.56	+ 2.88
	31	22 Camelopardalis	N.	4	18.7	26.0	29.9	47.7	53.6	59.3	16.5	20.8	27.9	3 53.38	+ 0.83	. .	+32.33	6 4 26.54	+ 0.16
	32	Lalande 11886	N.	4	3.4	6.1	7.6	14.0	16.1	18.3	24.6	26.1	28.8	7 16.11	− 0.38	. .	+32.33	6 7 48.06	+ 2.92
	33	δ Ursæ Minoris, S.P.	N.	3	. .	. .	2.5	27.5	53.5	20.5	45.0	. .	. .	13 53.68	− 8.58	. .	+32.33	18 14 17.43	− 0.78
	34	5 Draconis, S.P.	N.	1.3	49.1	39.0	33.1	. .	. .	. .	. .	. .	. .	50 1.00	− 2.30	. .	+32.34	18 50 31.04	+ 0.37
	35	ε Canis Majoris	N.	3	44.4	47.3	49.0	55.9	58.2	0.5	7.5	9.3	12.2	52 58.26	− 0.92	+32.35	+32.34	6 53 29.68	− 0.03
	36	Uranus I, S.	N.	4	. .	54.8	56.4	. .	. .	. .	14.0	15.9	18.5	9 5.25	− 0.30	. .	+32.35	7 9 37.30	. .
	37	Uranus II, N.	N.	4	. .	. .	1.1	3.4	5.7	7.7	10.0	. .	. .	9 5.59	− 0.30	. .	+32.35	7 9 37.64	. .
	38	α Coronæ Borealis	F.	4	20.4	23.3	25.1	32.1	34.5	36.5	43.5	45.0	47.9	28 34.26	− 0.29	+32.56	+32.53	15 29 6.50	− 0.03
	39	α Serpentis	F.	.	2.8	5.4	6.9	13.0	15.0	17.2	23.1	25.0	27.5	37 15.10	− 0.53	+32.53	+32.53	15 37 47.10	0.00
22	40	Sun I, N.	F.	.	22.1	24.8	26.3	33.1	35.2	37.4	44.3	45.8	48.8	3 35.31	− 0.90	. .	+32.56	18 4 6.97	. .
	41	Sun II, S.	F.	.	44.5	47.3	49.1	55.7	58.1	0.2	6.8	8.5	11.4	5 57.96	− 0.90	. .	+32.56	18 6 29.62	. .
	42	β Ceti	F.	.	15.1	18.0	19.6	26.2	28.3	30.3	36.9	38.5	41.1	26 28.22	− 0.84	+32.66	+32.63	0 37 0.01	0.00
	43	Moon I, S.	F.	.	46.5	49.0	50.4	57.1	59.1	1.0	7.4	9.1	11.7	42 59.03	− 0.62	. .	+32.63	0 43 31.04	+61.96
	44	Neptune	F.	.	16.5	19.5	20.8	27.1	29.0	31.0	37.3	38.9	41.3	55 29.04	− 0.56	. .	+32.63	0 56 1.11	. .
	45	Polaris	F.	.	. .	. .	43.0	11.0	30.0	59.0	18.0	. .	. .	10 32.54	+20.14	. .	+32.63	1 11 25.31	− 1.43
	46	η Piscium, (R.)	F.	.	. .	. .	. .	. .	. .	. .	4.8	6.1	8.8	23 56.21	− 0.54	. .	+32.63	1 24 28.30	− 0.02
	47	ο Piscium	F.	.	44.1	46.7	48.1	54.4	56.5	58.5	4.6	6.3	9.0	37 56.47	− 0.52	+32.58	+32.64	1 38 28.59	+ 0.02
	48	β Arietis, (R.)	F.	.	39.3	42.0	43.7	50.1	52.3	54.6	1.3	2.9	5.3	46 52.39	− 0.48	. .	+32.64	1 47 24.55	+ 0.15
	49	α Arietis, (R.)	F.	.	2.2	4.9	6.5	13.3	15.5	17.8	24.5	26.1	28.7	59 15.50	− 0.45	. .	+32.64	1 59 47.69	+ 0.05
	50	α Serpentis	T.	.	2.8	5.2	6.8	13.0	15.1	17.2	23.4	24.9	27.3	37 15.08	− 0.40	+32.45	+32.66	15 37 47.34	+ 0.21

18.23.26.31. Bisections at sets B and D.
22.30. Wire A used.
34. Bisections at sets B and D.
40. Seems five revs. wrong in N. P. D.
42. Seems 1′ 20″ wrong in N. P. D. Cannot account for it.

Number.	Circle Division.	MICROSCOPE MICROMS.				TELESCOPE MICROMETER.						Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan's Corrections.
		I.	II.	III.	IV.	Rev.	1.	2.	3.	4.	5.						
	° '	r. "	"	"	"							"	° ' "		' "	° ' "	"
1	190 26	15.4	14.3	12.2	10.1	23	. .	. .	. .	760	723	10.4	190 29 43.3	. .	+ 11.4	40 36 26.5	− 0.7
2	33 6	16.6	12.4	10.4	11.7	27	. .	610	. .	423	. .	10.4	33 8 47.0	. .	+ 40.2	84 15 48.4	−20.4
3	15 8	17.9	14.0	12.5	13.6	24	. .	342	. .	300	. .	10.4	15 11 34.7	797	+ 16.7	66 18 12.6	0.0
4																	
5	62 0	9.0	5.0	3.3	5.3	27	400	341	. .	. .	. .	10.3	62 2 57.4	. .	+ 1 49.2	113 11 7.8	− 7.9
6	62 32	10.0	6.4	4.2	6.6	25	. .	. .	290	288	265	10.3	62 35 26.1	563	+ 1 51.8	113 43 39.1	− 8.0
7																	
8	43 33	11 24.1	20.7	16.3	20.0	25	969	140	220	290	423	10.3	43 36 29.8	640	+ 56.4	94 43 47.4	
9	38 0	10 11.4	7.2	4.0	6.7	23	885	894	. .	. .	. .	10.3	38 3 49.3	652	+ 46.5	89 10 57.0	− 1.1
10	38 0	10 11.4	7.2	4.0	6.7	26	. .	. .	. .	259	249	10.3	38 3 11.1	. .	+ 46.5	89 10 18.8	− 1.1
11	34 36	10.8	7.2	2.9	6.0	22	781	756	. .	590	522	10.3	34 40 7.6	. .	+ 41.2	85 47 10.0	− 0.2
12	33 52	10.8	7.5	3.0	5.8	24	400	535	. .	262	215	10.3	33 55 42.5	. .	+ 40.1	85 2 43.8	−24.6
13	310 14	9.5	6.7	5.1	7.4	22	360	336	304	315	323	10.3	310 17 57.2	. .	− 1 10.3	1 23 8.1	0.0
14	47 40	10.1	8.1	4.0	7.1	21	. .	. .	910	. .	. .	10.3	47 44 18.5	. .	+ 1 5.6	98 51 45.3	− 1.9
15	329 16	8.4	5.3	2.9	5.8	28	600	462	. .	332	360	10.3	329 18 41.8	673	− 35.5	20 24 27.5	− 1.3
16	30 36	11.3	7.6	4.2	6.7	26	. .	018	. .	888	. .	10.3	30 39 16.6	. .	+ 35.6	81 46 13.4	− 1.1
17	144 38	7.3	5.3	1.9	2.4	25	890	799	. .	721	739	10.3	144 41 22.3	710	− 42.7	86 25 41.6	− 0.2
18	321 36	7.8	4.2	3.2	6.0	25	696	656	. .	582	559	10.3	321 39 24.0	. .	− 47.6	12 44 57.6	− 2.3
19	18 16	11.8	7.9	4.3	7.5	23	. .	. .	345	. .	. .	10.3	18 19 56.0	. .	+ 20.0	69 26 37.2	− 1.1
20	190 26	6.2	5.3	1.6	2.2	24	372	301	. .	224	117	10.3	190 29 45.6	. .	+ 11.3	40 36 24.3	− 2.5
21	23 32	12.1	7.5	4.0	6.4	27	. .	. .	. .	893	854	10.3	23 34 46.2	735	+ 26.3	74 41 33.7	− 1.1
22	15 0	12.1	8.0	5.2	8.1	22	. .	456	. .	397	. .	10.3	15 6 43.9	. .	+ 16.3	66 13 21.4	−13.4
23	207 10	6.5	5.8	3.0	3.5	28	225	138	. .	130	125	10.3	207 12 45.5	. .	+ 30.9	23 53 4.8	− 0.8
24	23 36	12.9	8.9	5.0	7.9	22	. .	. .	281	. .	. .	10.3	23 40 11.5	. .	+ 26.4	74 46 59.1	+ 0.8
25	132 42	5.8	3.4	29.7	1.2	23	620	634	. .	505	506	10.3	132 45 58.1	. .	− 1 5.0	98 21 28.1	− 0.2
26	323 54	9.0	4.7	4.1	7.0	25	640	582	. .	. .	. .	10.3	323 57 23.6	. .	− 43.7	15 3 1.1	− 1.7
27	2 28	8.0	3.4	1.8	3.8	23	560	540	. .	368	391	10.3	2 31 58.2	701	+ 2.7	53 38 22.1	− 9.4
28	72 56	7.9	4.7	0.7	3.9	26	030	966	. .	775	892	10.3	72 59 19.9	. .	+ 3 14.1	124 8 55.2	+ 3.4
29	31 26	9.2	5.1	1.6	5.0	21	940	939	. .	772	775	10.3	31 30 21.5	. .	+ 36.8	82 37 19.5	− 0.4
30	23 58	7.2	2.8	29.2	3.0	28	. .	240	. .	225	. .	10.3	24 3 20.3	693	+ 26.8	75 10 8.3	− 8.1
31	329 30	7.7	4.0	3.0	5.6	28	462	412	. .	359	354	10.3	329 32 41.7	. .	− 35.3	20 38 27.6	− 1.4
32	22 22	11.2	7.1	4.2	7.3	26	138	125	. .	028	995	10.3	22 25 14.9	. .	+ 24.8	73 32 0.9	− 6.9
33	305 28	6.3	3.1	1.8	4.2	25	. .	355	375	311	275	10.3	305 31 29.6	690	− 1 23.9	356 36 26.9	− 0.1
34	294 8	6.6	4.1	3.5	4.8	20	500	625	. .	. .	. .	10.3	294 12 41.8	. .	− 2 12.5	345 16 50.5	+ 0.3
35	67 34	10.1	6.5	2.8	6.2	20	. .	. .	012	985	938	10.3	67 39 3.2	683	+ 2 24.7	118 47 49.1	− 0.6
36	15 54	10.9	7.1	4.2	7.1	22	965	. .	. .	. .	745	10.3	15 58 4.4	. .	+ 17.1	67 4 42.7	− 0.1
37	15 54	10.9	7.1	4.2	7.1	23	. .	129	. .	982	. .	10.3	15 58 1.1	681	+ 17.1	67 4 39.4	− 0.1
38	11 40	9.4	4.6	4.6	5.1	23	438	418	. .	256	258	10.3	11 43 58.3	736	+ 12.6	62 50 32.1	+ 2.3
39	31 58	9.8	4.8	3.5	5.0	21	. .	225	. .	185	. .	10.3	32 2 30.8	. .	+ 38.0	83 9 30.0	+ 1.0
40	61 58	11.4	6.9	5.3	8.8	26	008	008	. .	. .	. .	10.3	62 11 15.9	. .	+ 1 52.6	113 9 29.7	− 7.9
41	62 30	4.3	29.0	27.5	0.8	19	. .	. .	. .	456	460	10.3	62 35 1.6	690	+ 1 55.2	113 43 18.0	− 8.0
42	57 32	11.0	7.2	4.6	8.0	23	. .	. .	. .	000	980	10.3	57 36 0.4	720	+ 1 35.0	108 43 56.6	
43	39 18	11 10.5	7.5	3.5	7.1	19	800	806	978	104	132	10.3	39 22 18.4	. .	+ 49.6	90 29 29.2	
44	34 36	8.4	4.8	0.2	4.2	22	. .	. .	. .	870	940	10.3	34 40 5.2	724	+ 41.8	85 47 8.2	− 0.2
45	310 14	8.6	5.5	3.5	6.8	23	175	195	110	088	144	10.3	310 18 1.0	. .	− 1 11.2	1 23 11.0	+ 3.1
46																	
47	30 20	10.1	7.1	4.0	6.7	25	. .	941	. .	039	. .	10.3	30 23 16.5	. .	+ 35.5	81 30 13.2	− 1.6
48	161 14	9.5	7.8	5.4	5.9	28	. .	250	. .	274	. .	10.3	161 16 41.4	. .	− 20.5	69 50 0.3	− 1.9
49	163 54	5.4	3.1	29.9	1.2	26	880	852	. .	859	859	10.3	163 57 7.5	. .	− 17.4	67 19 31.1	+ 0.2
50	31 58	17.3	14.7	17.8	15.5	20	. .	550	. .	554	. .	10.3	32 2 30.3	. .	+ 38.6	83 9 30.1	+ 0.9

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S—	
	Parallax.	Semi-diam.
	' "	' "
8	− 37 25.4	− 14 51.8
43	− 34 40.5	− 15 0.1

DATE.	Number.	OBJECT.	Observer.	Weight.	SECONDS OF TRANSITS OVER WIRES.										CORRECTIONS.			Apparent R. Ascension.	Miscellan's Corrections.
					I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	Mean wire.	Inst.	Clock appar'nt.	Clock adopted.		
														m. s.	s.	s.	s.	h. m. s.	s.
1868. Dec. 22	1	Venus II, S. . .	T.	2	31.0	34.0	35.5	42.0	44.2	46.4	52.8	54.4	57.2	48 44.17	− 0.63	. .	+32.66	15 49 16.20	− 0.46
	2	α Herculis . . .	T.	3	53.6	56.1	57.7	4.0	6.2	8.2	14.6	16.1	18.7	8 6.13	− 0.33	+32.61	+32.67	17 8 38.47	+ 0.06
23	3	Sun I, N. . . .	T.	.	48.4	51.2	52.6	59.5	1.7	4.0	10.5	12.2	15.0	8 1.68	− 0.69	. .	+32.68	18 8 33.67	. .
	4	Sun II, S. . . .	T.	.	11.0	14.0	15.5	21.9	24.2	26.2	33.2	35.0	37.5	10 24.28	− 0.69	. .	+32.68	18 10 56.27	. .
	5	γ Aquilæ. . . .	T.	.	15.1	17.7	19.3	25.5	27.6	29.7	35.9	37.5	40.1	39 27.60	− 0.37	+32.72	+32.69	19 39 59.92	− 0.02
	6	α Aquilæ, (E. & E.) .	T.	.	. .	12.3	24.3	36.6	49.3	1.4	14.0	26.1	. .	43 49.17	− 0.39	+32.75	+32.69	19 44 21.47	− 0.05
	7	β Aquilæ . . .	T.	2	6.0	8.6	10.2	16.4	18.5	20.5	26.6	28.3	30.8	48 18.43	− 0.40	+32.70	+32.69	19 48 50.72	− 0.01
	8	ω Piscium . . .	H.	2	49.6	52.2	53.6	59.9	1.9	3.9	10.0	11.5	14.2	52 1.87	− 0.40	+32.84	+32.87	23 52 34.34	+ 0.01
	9	Anonymous . .	H.	2	11.4	13.8	15.4	21.8	23.7	25.6	32.0	33.5	36.0	6 23.69	− 0.40	. .	+32.87	0 6 56.16	+ 3.80
	10	β Ceti	H.	2	14.5	17.5	19.0	25.7	27.9	29.9	36.6	38.0	40.8	36 27.77	− 0.64	+32.90	+32.87	0 37 0.00	0.00
	11	Anonymous . .	H.	2	7.2	9.7	11.3	17.6	19.6	21.7	27.8	29.4	32.0	45 19.59	− 0.37	. .	+32.87	0 45 52.09	+ 3.58
	12	Neptune . . .	T.	3	16.3	19.0	20.3	26.3	28.3	30.4	36.5	38.1	40.7	55 28.43	− 0.42	. .	+32.73	0 56 0.74	. .
	13	Anonymous . .	T.	3	22.0	24.4	26.0	32.5	34.6	36.7	42.6	44.3	47.0	2 34.46	− 0.36	. .	+32.73	1 3 6.83	+ 3.50
	14	Polaris	T.	3	. .	58.0	2.0	14.0	. .	. .	19.0	22.0	5.0	10 39.43	+13.09	. .	+32.73	1 11 25.25	− 0.70
	15	Anonymous . .	T.	3	12.9	15.4	17.1	23.4	25.4	27.5	33.7	35.4	38.0	11 25.42	− 0.35	. .	+32.73	1 11 57.80	+ 3.46
	16	η Piscium . . .	T.	3	43.2	45.9	47.4	53.8	56.0	58.1	4.4	6.2	8.6	23 55.96	− 0.33	+32.73	+32.74	1 24 28.37	+ 0.06
	17	Moon I, S. . . .	T.	3	. .	33.9	36.1	38.2	40.3	42.4	46.5	48.0	50.6	30 38.24	− 0.42	. .	+32.74	1 31 10.56	+62.91
	18	ο Piscium . . .	T.	.	43.7	46.3	47.8	54.2	56.2	58.3	4.4	6.0	8.7	37 56.18	− 0.38	+32.72	+32.74	1 38 28.54	− 0.02
	19	β Arietis, (R.) . .	T.	2	39.1	41.8	43.4	47.8	50.1	52.2	54.2	56.3	. .	46 52.12	− 0.49	. .	+32.74	1 47 24.37	− 0.02
	20	α Arietis	T.	.	1.8	4.7	6.2	13.0	15.2	17.2	24.0	25.6	28.5	59 15.13	− 0.26	+32.77	+32.74	1 59 47.61	− 0.02
	21	ξ^1 Ceti	T.	3	18.8	21.4	22.7	29.0	31.1	33.1	39.1	41.0	43.5	5 31.11	− 0.39	+32.76	+32.74	2 6 3.46	+ 0.01
	22	α Persei, (R.) . .	T.	.	8.6	12.4	14.6	24.1	27.4	30.3	40.0	42.4	46.3	14 27.34	− 0.27	. .	+32.75	3 14 59.82	+ 0.06
	23	η Tauri	T.	.	56.6	59.4	0.9	7.8	10.0	12.0	18.7	20.6	23.3	39 9.92	− 0.25	+32.82	+32.75	3 39 42.42	− 0.06
	24	ζ Persei	T.	3	7.8	10.6	12.4	19.7	22.1	24.4	31.7	33.7	36.4	45 22.09	− 0.18	. .	+32.75	3 45 54.66	0.00
	25	15 Draconis, S. P. .	T.	.	. .	7.0	2.6	. .	. .	. .	. .	. .	. .	27 39.89	− 1.12	. .	+32.76	16 28 11.53	+ 0.36
	26	α Camelopard., (R.) .	T.	.	2.2	8.4	11.7	27.6	32.2	36.6	52.0	56.3	2.6	40 32.18	0.00	. .	+32.76	4 41 4.94	+ 0.37
	27	11 Orionis . . .	T.	.	20.6	23.2	24.8	31.2	33.2	35.2	41.7	43.0	45.8	56 33.19	− 0.33	+32.78	+32.76	4 57 5.62	− 0.06
	28	α Aurigæ, (R.) . .	T.	.	12.1	17.7	23.5	26.8	29.5	32.3	35.3	41.0	46.8	6 29.44	− 0.30	. .	+32.77	5 7 1.91	+ 0.08
	29	β Tauri, (R.) . .	T.	3	15.2	18.2	19.6	26.6	28.9	31.1	28.3	40.0	42.9	17 28.98	− 0.43	. .	+32.77	5 18 1.32	− 0.04
	30	Weisse V, 686 .	T.	3	3.5	6.5	8.3	16.2	18.6	21.2	28.4	30.5	33.8	24 18.56	− 0.13	. .	+32.77	5 24 51.20	+ 3.32
	31	ε Orionis . . .	T.	3	50.0	52.6	54.2	0.2	2.3	4.3	10.5	12.0	14.6	29 2.30	− 0.46	+32.78	+32.77	5 29 34.61	0.00
	32	α Columbæ . . .	T.	3	8.6	11.7	13.5	21.1	23.6	26.0	33.4	35.3	38.5	34 23.52	− 0.83	. .	+32.77	5 34 55.46	− 0.05
	33	α Orionis, (R.) . .	T.	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	. .	. .	. .	. . . .	. .
	34	Anonymous . .	T.	3	38.5	41.3	42.8	49.0	51.2	53.2	59.4	1.1	3.9	52 51.16	− 0.33	. .	+32.77	5 53 23.60	+ 2.86
	35	Lalande 11886 .	T.	3	2.9	6.0	7.0	13.5	15.8	17.8	24.3	25.8	28.4	7 15.72	− 0.32	. .	+32.77	6 7 48.17	+ 2.90
	36	δ Ursæ Min., S. P. .	T.	.	. .	. .	. .	24.0	52.0	16.0	42.0	. .	. .	13 50.80	− 5.76	. .	+32.77	18 14 17.81	− 0.41
	37	50 Draconis, S. P. .	T.	3	48.3	38.0	32.5	8.3	59.5	51.8	27.8	21.8	12.0	50 0.00	− 1.46	. .	+32.78	18 50 31.32	+ 0.70
	38	Uranus I, N. . .	T.	3	30.0	32.8	34.4	. .	. .	. .	52.1	53.8	56.5	8 43.27	− 0.26	. .	+32.78	7 9 15.79	. .
	39	Uranus II, S . .	T.	3	. .	. .	39.2	41.3	53.7	45.8	48.3	. .	. .	8 43.66	− 0.26	. .	+32.78	7 9 16.18	. .
24	40	Moon I, S. . .	N.	4	58.5	1.0	2.6	9.0	11.1	13.1	19.4	21.0	23.6	20 11.03	− 0.33	. .	+33.14	2 20 43.84	+64.41
	41	γ Ceti	N.	4	46.0	48.4	50.0	56.1	58.1	0.1	6.3	7.9	10.5	35 58.18	− 0.38	+33.14	. .	. . . .	. .
	42	α Ceti	N.	4	41.1	43.7	45.2	51.4	53.5	55.5	1.5	3.1	5.6	54 53.40	− 0.37	+33.15	. .	. . . .	. .
25	43	ζ Arietis	F.	.	36.3	39.3	40.9	47.4	49.5	51.5	58.1	59.8	2.5	6 49.48	− 0.15	+33.45	. .	. . . .	. .
	44	Moon I, S. . .	F.	.	16.1	18.7	20.1	26.9	. .	31.0	37.2	39.0	41.6	12 28.82	− 0.17	. .	+33.47	3 13 2.12	+66.38
	45	η Tauri	F.	.	55.7	58.5	0.1	6.9	9.1	11.4	18.0	19.8	22.5	39 9.11	− 0.12	+33.49	. .	. . . .	. .
	46	ζ Persei	F.	.	6.9	9.9	11.6	19.0	21.4	23.8	30.9	32.5	35.4	45 21.27	− 0.04	. .	+33.48	3 45 54.71	+ 0.06
	47	α Scorpii	T.	.	33.9	36.7	38.5	45.4	47.6	49.9	56.6	58.4	1.2	20 47.58	− 0.60	+33.69	+33.61	16 21 20.59	− 0.06
	48	α Ophiuchi . . .	T.	3	3.3	5.9	7.5	13.6	15.7	17.9	24.2	25.7	28.4	28 15.80	− 0.20	+33.60	+33.62	17 28 49.22	+ 0.03
26	49	Moon I, S. . .	T.	4	58.5	1.4	2.8	9.4	11.6	13.7	20.4	21.9	24.6	8 11.59	− 0.18	. .	+33.75	4 8 45.16	+68.58
	50	ε Tauri	T.	.	12.2	14.9	16.5	22.9	25.2	27.3	33.7	35.4	38.1	20 25.13	− 0.14	+33.66	+33.75	4 20 58.74	+ 0.09
	51	α Tauri	T.	.	38.5	41.2	42.7	49.2	51.3	53.4	59.8	1.3	4.0	27 51.27	− 0.17	+33.76	+33.75	4 28 24.85	− 0.01
	52	ε Ursæ Min., S. P. .	T.	.	26.0	18.0	10.0	2.0	16.5	. .	. .	. .	. .	58 49.36	− 3.00	. .	+33.76	16 59 20.12	− 0.19

11.13.15.30.34.35. Wire A used.
14.17.25.37.40.44. Bisections at sets B and D.
21. Seems one rev. wrong.
38.39. Seems two revs. wrong.
52. Transit over wires VII and E_5–E_2.

Number.	Circle Division.	MICROSCOPE MICROMS. I.	II.	III.	IV.	TELESCOPE MICROMETER. Rev.	1.	2.	3.	4.	5.	Zenith Point Correction.	Apparent Zenith Distance, South.	Sympiesometer.	Refraction.	Apparent N. P. Distance.	Miscellan'us Corrections.
	° ′	r. ″	″	″	″	.						″	° ′ ″		′ ″	° ′ ″	″
1	57 8	18.6	14.9	11.9	15.6	21	. .	834	. .	802	. .	10.3	57 12 11.9	804	+ 1 35.4	108 20 8.5	− 5.6
2	24 18	23.3	20.4	17.1	18.5	28	. .	162	. .	988	. .	10.3	24 20 31.8	798	+ 27.9	75 27 20.9	− 1.2
3	61 58	9.1	5.6	2.0	5.0	24	600	668	. .	. .	. .	10.3	62 1 40.6	. .	+ 1 54.9	113 9 56.7	− 7.9
4	62 30	9.3	5.7	3.0	5.5	22	. .	. .	. .	083	140	10.3	62 34 15.6	778	+ 1 57.6	113 42 34.4	− 8.0
5	28 32	13.6	9.1	2.8	8.6	26	. .	140	. .	963	. .	10.3	28 35 14.1	. .	+ 33.4	79 42 8.7	+ 0.5
6	30 18	17.5	13.3	11.4	13.1	24	. .	710	. .	628	. .	10.3	30 21 28.1	. .	+ 35.9	81 28 25.2	− 1.1
7	32 44	11.5	7.3	5.6	6.6	22	. .	. .	. .	960	. .	10.3	32 48 1.2	788	+ 39.6	83 55 2.0	+ 0.6
8	32 42	10.9	8.1	6.0	7.5	28	151	098	. .	981	011	11.6	32 44 45.0	830	+ 39.9	83 51 46.1	− 0.2
9	32 58	6.6	3.2	1.1	3.2	23	. .	760	. .	710	. .	11.6	33 1 55.7	834	+ 40.4	84 8 57.3	−23.5
10	57 32	8.7	5.4	3.5	5.5	28	. .	878	. .	672	. .	11.6	57 34 36.3	839	+ 1 37.6	108 42 35.1	− 0.6
11	28 36	9.8	6.0	4.0	6.0	29	. .	196	. .	098	. .	11.6	28 41 4.2	841	+ 34.0	79 47 59.4	−22.8
12	34 36	15.5	12.4	10.4	12.1	22	. .	550	. .	500	. .	11.6	34 40 5.1	. .	+ 43.0	85 47 9.3	− 0.2
13	26 50	10.9	7.7	5.4	7.4	29	522	490	. .	480	410	11.6	26 54 57.8	. .	+ 31.6	78 1 50.6	−22.4
14	310 16	12.0	9.2	8.7	10.8	31	. .	. .	000	090	099	11.6	310 17 59.6	. .	− 1 13.3	1 23 7.5	− 0.3
15	26 0	11.5	7.4	5.4	8.4	28	. .	592	. .	210	. .	11.6	26 5 13.9	. .	+ 30.5	77 12 5.6	−22.1
16	24 10	12.9	8.8	6.6	9.8	26	. .	839	. .	800	. .	11.6	24 13 2.6	852	+ 28.0	75 19 51.8	− 0.6
17	35 0	4.3	0.4	28.6	0.9	25	. .	114	198	260	. .	11.6	35 3 35.9	. .	+ 43.8	86 10 40.9	
18	30 20	11.0	7.6	6.0	8.7	25	. .	860	. .	822	. .	11.6	30 23 18.8	. .	+ 36.6	81 30 16.6	+ 1.7
19	161 14	9.0	7.0	6.6	5.4	28	. .	554	. .	. .	. .	11.6	161 16 39.2	. .	− 21.1	69 50 3.1	+ 0.9
20	16 0	5.9	1.2	29.8	3.3	27	. .	. .	940	. .	. .	11.7	16 2 52.5	. .	+ 17.9	67 9 31.6	+ 0.7
21	30 36	11.0	7.0	4.8	7.7	26	. .	020	. .	985	. .	11.7	30 39 32.4	858	+ 37.0	81 46 30.6	+16.0
22	190 26	4.3	2.8	0.6	0.1	24	468	415	. .	330	303	12.0	190 29 47.2	. .	+ 11.6	40 36 22.4	− 4.1
23	15 8	15.4	11.4	9.6	8.0	24	. .	710	. .	584	. .	12.0	15 11 34.7	862	+ 17.0	66 18 12.9	+ 0.6
24	7 20	3.5	29.4	29.0	0.3	23	. .	638	. .	496	. .	12.0	7 24 1.9	862	+ 8.1	58 30 31.2	− 0.5
25	287 56	11.5	8.3	9.0	10.8	23	428	472	. .	. .	. .	12.2	287 59 54.5	860	− 3 10.3	339 3 5.4	− 0.5
26	207 8	8.0	8.5	6.6	5.6	20	161	243	. .	051	060	12.2	207 12 46.5	. .	+ 32.1	23 53 2.6	− 2.5
27	23 36	16.8	12.8	11.1	14.3	22	. .	233	. .	080	. .	12.2	23 40 10.3	. .	+ 27.4	74 46 58.9	+ 0.6
28	186 54	8.1	8.0	5.5	5.4	23	. .	694	. .	574	. .	12.2	186 57 54.3	. .	+ 7.6	44 8 19.3	− 4.2
29	169 32	8.2	6.2	4.5	3.8	23	150	172	. .	164	970	12.2	169 36 3.4	. .	− 11.5	61 30 29.3	+ 0.1
30	2 26	9.4	5.6	5.1	7.1	25	770	670	. .	636	590	12.2	2 31 58.0	. .	+ 2.8	53 38 22.0	− 9.2
31	40 6	10.3	6.2	4.6	7.4	22	. .	510	. .	516	. .	12.2	40 10 11.4	. .	+ 52.8	91 17 25.4	− 0.3
32	72 56	6.6	3.4	0.6	4.4	26	. .	. .	. .	550	583	12.2	72 59 11.4	867	+ 3 22.1	124 8 54.7	+ 2.3
33	148 26	7.3	5.4	4.0	3.7	24	. .	. .	776	710	700	12.2	148 29 38.8	. .	− 38.3	82 37 20.7	+ 0.6
34	23 58	9.7	6.6	4.4	7.2	28	162	. .	. .	186	150	12.2	24 3 19.2	. .	+ 27.9	75 10 8.3	− 8.2
35	22 20	4.6	1.0	29.5	2.6	28	830	820	. .	810	683	12.2	22 25 14.9	. .	+ 25.8	73 32 1.9	− 7.0
36	305 28	6.5	3.3	4.3	5.8	25	148	130	110	133	086	12.2	305 31 33.6	. .	− 1 27.3	356 36 27.5	+ 1.1
37	294 10	3.4	29.5	0.4	3.3	28	. .	251	251	248	. .	12.2	294 12 48.8	867	− 2 18.4	345 16 51.6	+ 2.1
38	15 54	5.0	1.4	0.1	2.7	24	053	. .	. .	. .	111	12.2	15 57 52.5	. .	+ 17.9	67 4 31.6	− 0.1
39	15 54	5.0	1.4	0.1	2.7	23	. .	748	. .	719	. .	12.2	15 57 57.7	. .	+ 17.9	67 4 36.8	− 0.1
40	30 47	11 17.0	13.3	10.6	13.0	27	566	711	843	930	040	13.0	30 50 14.7	850	+ 37.3	81 57 13.2	
41	36 8	3.2	28.5	27.3	0.2	23	478	460	. .	370	329	13.0	36 12 5.9	. .	+ 45.6	87 19 12.7	− 1.1
42	35 16	5.4	1.3	0.1	2.9	29	214	170	. .	044	030	13.0	35 18 36.0	858	+ 44.2	86 25 41.1	− 0.6
43	18 16	12.6	9.7	8.4	10.0	23?	. .	250	. .	256	. .	13.7	18 19 58.7	822	+ 20.5	69 26 40.4	+ 2.1
44	26 50	9 24.9	19.6	18.4	19.0	21	. .	670	712	824	. .	13.7	26 54 41.4	. .	+ 31.4	78 1 34.0	
45	15 8	7.6	3.4	2.6	5.2	25	. .	. .	. .	098	084	13.7	15 11 35.1	836	+ 16.9	66 18 13.2	+ 0.7
46	7 20	6.1	2.4	2.1	3.9	23	. .	. .	. .	366	345	13.7	7 24 2.8	. .	+ 8.1	58 30 32.1	+ 0.5
47																	
48	28 10	8.2	3.9	3.9	6.8	25	. .	066	. .	013	. .	12.3	26 13 34.4	. .	+ 29.4	77 20 25.0	− 0.3
49	23 30	12.5	8.5	7.6	8.8	29	. .	074	140	230	. .	12.3	23 32 27.7	818	+ 26.9	74 39 15.8	
50	19 56	9.2	6.0	4.6	6.2	22	. .	883	. .	746	. .	12.3	20 0 7.6	. .	+ 22.5	71 6 51.3	− 0.9
51	22 36	12.4	6.5	7.6	8.5	28	. .	320	. .	090	. .	12.3	22 38 42.9	819	+ 25.8	73 45 29.9	+ 0.4
52																	

No.	Barom.	External Therm.	Attached Therm.
	in.	°	°

For summary of the elements of reduction see page 3.

No.	MOON'S— Parallax.	Semi-diam.
	′ ″	′ ″
17	− 31 43.7	− 15 10.0
40	− 28 40.4	− 15 22.3
44	− 25 40.6	− 15 36.1
49	− 22 59.1	− 15 50.8

OBSERVATIONS OF THE NADIR POINT MADE TO DETERMINE THE ZENITH POINT CORRECTION OF THE TRANSIT CIRCLE.

Day and sidereal hour.			Observer.	READINGS OF MICROSCOPE MICROMETERS.				Telescope Micrometer.	Circle Reading.	Zenith Point Correction.
				I.	II.	III.	IV.			
									179° 59′	0′ 0′
1868.	d.	h.		r. ″	″	″	″	r.	″	″
January	30.5	.	A.	17.5	17.9	20.0	16.7	26.205	16.85	42.81
	31.5	.	A.	19.7	20.6	22.3	20.0	25.985	16.98	42.08
February	3.3	4	N.	3.9	4.8	7.0	5.3	24.958	18.07	40.99
	3.4	7	N.	1.5	1.4	4.4	2.7	25.336	15.05	44.01
	6.3	4	E.	3.0	5.5	5.3	2.2	25.112	16.97	42.09
	7.0	22	A.	29.4	1.2	2.6	0.8	25.385	15.80	43.26
	7.4	.	A.	9 25.5	26.5	29.5	26.5	25.709	14.84	44.22
	11.0	.	A.	20.0	22.4	25.6	25.5	26.816	16.85	42.21
	11.5	11.5	A.	27.9	27.7	30.6	28.5	25.580	15.20	43.86
	11.7	17.5	A,	16.2	16.0	20.5	16.2	26.264	16.11	42.95
	12.0	22	H.	9 19.5	21.9	24.0	19.8	26.819	7.39	51.67
	12.4	7	H.	9 22.5	24.4	25.7	23 2	26.600	8.10	50.96
	12.6	13.5	H.	24.5	25.6	28.1	25.8	26.464	8.12	50.94
	13.4	8.0	E.	0.3	2.0	1.8	0.4	25.764	9.90	49.16
	13.6	14	E.	9 29.2	0.7	0.5	29.4	25.839	9.91	49.15
	14.3	8	A.	27.6	0.3	1.2	28.8	25.369	17.57	41.49
	14.6	13	A.	27.0	28.7	30.5	28.0	25.581	15.25	43.81
	14.8	19	A.	24.2	25.6	28.0	24.9	25.765	15.31	43.75
	18.0	0	A.	22.9	26.6	26.4	25.0	25.526	19.43	39.63
	18.4	9.5	A.	25.0	26.7	27.6	24.9	25.580	17.76	41.30
	19.0	23	H.	10 1.1	1.6	0.6	0.2	25.545	17.30	41.76
	19.3	6	H.	10 3.4	3.8	3.7	3.2	25.266	19.08	39.98
	19.5	10	H.	10 0.5	1.4	1.6	0.7	25.399	19.36	39.70
	22.2	4	N.	0.8	1.0	2.2	0.9	25.278	17.39	41.67
	22.4	7	N.	2.4	2.8	4.0	2.8	25.225	16.25	42.81
March	9.3	6	N.	10 4.5	6.8	7.7	4.6	23.298	42.78	16.28
	9.	.	A.	10 2.9	4.5	4.8	3.5	23.368	43.71	15.35
	16.	9.5	H.	9 27.5	28.5	27.3	23.3	23.748	45.17	13.89
	18.3	8.5	H.	10 2.9	4.8	3.1	29.2	23.563	42.15	16.91
	18.5	11	H.	9 23.7	25.0	24.9	19.5	23.654	49.98	9.08
	19.0	.	N.	10 3.2	4.0	3.6	0.5	23.271	46.27	12.79
	19.3	6	N.	9 29.4	0.5	0.9	26.9	23.462	46.78	12.28
	19.	.	N.	10 3.0	4.5	4.2	0.6	23.176	47.49	11.57
	20.0	.	N.	10 3.3	2.8	3.2	1.0	23.318	45.81	13.25
	23.0	.	A.	3.4	3.6	4.9	2.5	23.196	46.61	12.45
	23.4	10	H.	9 18.5	19.0	20.0	16.0	24.093	48.17	10.89
	24.5	12	A.	4.0	4.3	4.8	3.1	23.084	47.93	11.13
	30.3	9	N.	10 10.0	9.4	10.5	7.7	22.748	47.71	11.35
	30.5	13	N.	10 5.2	4.9	6.3	4.1	23.110	46.43	12.63
	31.1	.	A.	8.7	8.0	9.8	7.6	22.820	47.48	11.58
	31.5	.	A.	29.4	28.5	29.9	28.1	23.334	49.17	9.89
April	1.4	10	H.	9 23.1	22.5	23.1	19.2	23.754	49.75	9.31
	3.4	.	A.	9 29.9	29.4	0.8	27.8	23.350	48.45	10.67
	4.1	2	N.	2.3	1.9	3.1	1.6	23.252	47.16	11.90
	5.9	0.9	N.	2.1	1.9	3.3	1.1	23.334	46.05	13.01
	6.3	8	N.	3.6	2.8	4.1	2.0	23.229	46.62	12.44
	7.9	.	N.	4.2	3.8	6.0	3.4	23.166	46.34	12.72
	8.3	.	N.	5.7	5.0	6.1	3.9	23.059	47.19	11.87
	8.5	14	N.	3.5	3.0	4.5	2.3	23.178	47.20	11.86
	18.0	.	N.	6.3	7.6	6.6	3.7	22.911	48.55	10.51
	21.3	10.6	N.	4.2	4.6	5.1	2.5	23.057	48.28	10.78
	21.5	.	N.	4.9	4.8	5.5	3.1	23.030	48.23	10.83
	23.0	.	N.	7.5	6.8	6.1	4.8	22.975	47.34	11.72
	24.0	.	A.	3.1	3.5	2.6	0.3	23.229	47.38	11.68
	24.5	.	A.	2.2	2.0	1.9	29.0	23.232	48.42	10.64
	27.1	7	N.	7.8	7.4	6.7	5.1	22.845	48.89	10.17
	27.5	14	N.	6.6	7.1	6.5	3.5	22.917	48.61	10.45
	28.0	.	E.	7.1	7.4	5.4	3.3	22.915	48.74	10.32
	30.0	3	N.	6.5	6.6	5.2	3.2	23.005	47.80	11.26
	30.6	.	A.	5.5	5.6	4.6	0.0	22.931	50.38	8.68
	30.9	.	N.	6.2	6.9	5.0	2.3	23.001	48.13	10.93

Day and sidereal hour.			Observer.	READINGS OF MICROSCOPE MICROMETERS.				Telescope Micrometer.	Circle Reading.	Zenith Point Correction.
				I.	II.	III.	IV.			
									179° 59′	0° 0′
1868.	d.	h.		r. ″	″	″	″	r.	″	″
May	1.4	13	N.	3.1	4.0	2.2	29.3	23.167	48.54	10.52
	4.4	11	N.	4.7	5.4	4.0	0.9	23.119	47.69	11.37
	8.6	.	A.	9 26.6	26.5	26.8	22.7	23.598	48.45	10.61
	11.0	.	N.	2.6	2.3	0.7	28.6	23.298	47.65	11.41
	11.3	10.6	N.	4.4	3.8	2.1	0.6	23.142	48.37	10.69
	11.5	16.0	N.	3.6	4.1	2.8	0.6	23.098	48.98	10.08
	14.4	.	N.	3.9	3.6	2.2	0.1	23.239	47.14	11.92
	16.4	.	E.	6.5	6.8	4.5	2.1	23.402	42.12	16.94
	18.0	.	N.	2.4	2.5	1.6	28.9	23.205	48.77	10.29
	18.3	2	N.	2.2	1.5	29.2	26.3	23.326	48.49	10.57
	21.1	.	N.	2.8	2.7	1.6	28.7	23.255.	47.79	11.27
	21.3	12	N.	5.0	4.5	3.2	1.2	23.092	48.37	10.69
	21.5	16	N.	1.9	2.0	0.2	27.6	23.256	48.92	10.14
	21.9	1.5	A.	10 5.0	5.3	3.8	2.4	23.107	48.40	10.66
	21.9	1.5	A.	2.5	1.6	0.6	29.5			
	22.1	6		5.1	5.0	2.8	0.8	23.029	49.38	9.68
	22.4	15		10 2.0	1.5	0.5	27.4	23.325	49.62	9.46
	22.4	15		9 28.5	28.6	27.5	23.3			
	25.0	.	N.	5.0	5.3	2.9	0.5	23.152	47.50	11.56
	25.9	2	A.	4.7	4.5	2.0	0.5	23.133	48.33	10.73
	26.2	8	A.	13.7	14.4	11.6	8.5	23.035	48.29	10.77
	26.5	16.5	A.	5.1	5.6	2.4	0.0	23.033	49.46	9.60
	27.1	.	E.	10 6.8	6.3	5.9	0.6	23.044	47.65	11.41
	28.3	.	N.	8.8	9.6	6.8	3.8	22.840	48.45	10.61
	29.0	.	A.	4.0	4.4	4.4	0.9	23.223	47.45	11.61
	31.9	.	N.	9.8	11.4	8.2	5.2	22.935	45.60	13.46
June	1.0	.	N.	9.2	10.5	7.4	4.5	22.692	50.05	9.01
	1.3	12	N.	8.0	8.5	5.9	1.8	22.748	51.05	8.01
	1.5	15	N.	4.2	5.0	2.3	28.0	22.967	51.36	7.70
	4.3	12	N.	6.2	6.9	3.9	0.6	22.838	51.32	7.74
	4.5	16	N.	4.9	5.8	2.9	29.7	22.958	50.57	8.49
	5.5	.	E.	6.0	6.4	3.5	2.2	22.854	50.97	8.09
	6.0	.	T.	9.0	10.1	6.0	2.9	22.696	50.90	8.16
	8.4	.	N.	9.8	10.8	6.7	3.0	22.702	50.23	8.83
	12.4	.	E.	5.2	5.8	3.0	1.5	23.011	49.21	9.85
	13.0	.	T.	10.6	11.5	7.5	4.5	22.706	49.21	9.85
	13.5	.	T.	12.2	12.3	8.7	9.8	22.573	49.02	10.04
	14.9	5	N.	4.7	5.8	1.0	27.8	23.113	49.20	9.86
	15.3	13.5	N.	7.1	8.2	3.8	1.0	22.914	49.53	9.53
	15.5	18	N.	7.4	8.6	4.5	1.2	22.940	48.73	10.33
	16.4	.	E.	10 13.0	14.3	9.0	5.9	22.588	49.00	10.06
	17.4	15.5	T.	15.2	17.1	12.2	10.1	22.342	49.66	9.40
	18.0	6	N.	5.7	8.0	2.3	28.2	22.945	50.53	8.53
	18.3	13	N.	8.1	9.8	4.4	0.1	22.890	49.33	9.73
	18.5	18	N.	5.2	6.4	1.1	26.4	23.151	48.67	10.39
	19.1	.	E.	10 17.4	19.8	12.6	10.0	22.182	50.76	8.30
	20.0	.	T.	16.7	14.3	10.2	7.4	22.469	49.22	9.84
	22.0	6	N.	10.4	12.3	6.4	3.2	22.743	49.14	9.92
	22.3	14	N.	8.9	11.0	4.9	1.2	22.828	49.38	9.68
	23.5	.	E.	7.4	8.1	3.0	0.9	22.944	49.26	9.80
	24.0	.	T.	14.1	14.7	10.1	6.9	22.546	48.72	10.34
	24.5	.	T.	1.2	2.7	27.8	25.2	23.311	49.29	9.77
	25.4	16	N.	6.5	7.4	3.1	29.7	23.032	48.58	10.48
	26.5	.	E.	12.6	12.5	8.5	6.8	22.663	48.30	10.76
	27.5	.	T.	7.6	9.1	4.5	0.7	22.861	49.92	9.14
	28.4	14	T.	10.2	11.5	8.0	5.2	22.693	49.23	9.83
	29.3	12	N.	8.6	10.0	4.7	1.6	22.877	48.90	10.16
	29.5	.	N.	7.2	8.6	3.8	0.3	22.972	48.70	10.36
July	1.3	13	T.	11.1	13.0	7.2	5.9	22.597	50.11	8.95
	1.5	.	T.	8.2	9.3	4.5	0.4	22.824	50.34	8.72
	2.0	.	N.	6.4	8.2	2.3	29.5	22.966	49.69	9.37
	2.4	16	N.	10.6	12.3	6.4	2.2	22.724	49.59	9.47
	3.0	.	E.	10 18.0	19.0	12.0	9.0	22.295	49.51	9.55
	3.4	.	E.	10 10.3	11.9	6.4	3.6	22.763	48.83	10.23
	4.0	.	T.	18.5	19.3	12.5	8.8	22.214	50.48	8.58
	4.5	.	T.	16.3	18.6	11.7	9.6	22.299	49.89	9.17
	7.0	.	E.	10 4.4	6.3	29.7	25.5	23.188	48.89	10.17
	10.5	.	E.	10 6.1	8.8	2.6	28.8	22.886	50.92	8.14
	11.0	.	T.	2.4	4.7	28.5	24.0	23.282	49.03	10.03
	11.5	.	T.	6.7	9.5	4.0	1.6	22.968	48.29	10.77
	13.3	16.0	N.	5.2	7.4	1.3	26.4	23.040	50.05	9.01
	14.0	.	E.	10 6.7	8.9	2.6	29.0	22.959	49.57	9.49
	14.4	.	E.	5.3	7.0	0.8	28.4	23.071	49.17	9.89
	15.0	15	T.	5.3	7.1	29.8	26.1	23.111	49.46	9.60
	15.5	.	T.	7.4	10.6	3.0	29.1	22.914	49.53	9.53
	16.3	16	N.	6.9	8.7	1.4	26.4	23.007	49.80	
	17.0	.	E.	10 7.5	9.6	1.6	29.0	22.959	49.46	

Day and sidereal hour.			Observer.	READINGS OF MICROSCOPE MICROMETERS.				Telescope Micrometer.	Circle Reading.	Zenith Point Correction.
				I.	II.	III.	IV.			
									179° 59′	0° 0′
1868.	d.	h.		r. ″	″	″	″	r.	″	″
July	17.4	.	E.	10 1.2	1.6	26.5	21.5	23.431	48.96	10.10
	18.0	.	T.	7.6	9.0	2.3	0.6	23.011	48.21	10.85
	18.5	.	T.	8.6	10.5	4.5	1.2	22.909	48.48	10.58
	22.0	.	T.	3.8	5.0	28.7	25.4	23.280	48.26	10.80
	22.5	.	T.	7.3	8.1	2.4	29.8	23.000	48.86	10.20
	23.0	.	N.	5.9	7.3	1.4	28.0	23.194	47.13	11.93
	23.3	16	N.	4.0	4.9	29.3	24.9	23.258	48.53	10.53
	23.5	19	N.	6.0	6.6	0.8	26.5	23.160	48.33	10.73
	25.3	.	T.	10.1	11.9	4.6	2.6	22.851	48.23	10.83
	25.5	.	T.	9.6	11.2	5.3	1.7	22.946	47.12	11.94
	28.0	.	E.	2.5	3.4	27.7	24.8	23.474	47.40	11.66
	28.3	.	E.	10 7.3	7.5	2.2	29.2	23.197	46.18	12.88
	28.4	.	T.	6.7	6.3	0.9	27.6	23.167	47.82	11.24
	30.3	.	F.	9 25.4	26.6	20.8	17.5	23.897	46.97	12.09
	30.5	.	F.	29.9	29.6	24.1	23.2	23.688	46.13	12.93
	31.3	.	E.	10 9.2	9.2	3.5	2.1	22.952	48.00	11.06
August	5.5	.	T.	8.0	9.0	2.7	1.7	22.992	48.02	11.04
	6.3	.	F.	10 3.7	3.6	27.4	23.2	23.388	47.84	11.22
	6.4	.	F.	0.7	1.1	25.4	24.2	23.510	47.61	11.45
	7.5	.	E.	10 6.1	7.0	0.7	28.7	23.156	47.75	11.31
	10.3	.	F.	24.0	25.0	18.6	14.2	23.855	49.73	9.33
	12.0	.	F.	6.9	8.8	2.5	29.3	23.153	46.53	12.53
	12.5	.	T.	9.6	11.0	5.2	3.3	23.949	46.75	12.31
	13.0	.	F.	9 26.3	28.6	23.0	20.9	23.758	46.97	12.09
	13.3	.	F.	10 2.4	2.3	28.8	25.4	23.425	47.02	12.04
	13.6	.	F.	9 26.2	26.0	21.3	16.5	23.900	47.01	12.05
	14.0	.	E.	9.5	11.0	5.2	2.4	22.930	47.33	11.73
	14.4	.	E.	10 4.8	5.5	1.0	27.1	23.307	46.47	12.59
	15.0	.	E.	15.8	16.2	10.0	9.0	22.632	46.12	12.94
	15.5	.	E.	3.5	4.9	28.7	28.3	23.330	45.49	13.57
	17.0	.	F.	10 0.7	1.5	25.6	21.6	23.686	45.37	13.69
	17.5	.	F.	2.4	1.3	26.0	24.9	23.496	47.04	12.02
	18.0	.	E,	10.3	10.8	4.9	1.9	22.920	47.49	11.57
	18.4	.	E.	10 13.6	15.7	8.6	5.5	22.737	46.42	12.64
	19.5	.	T.	14.0	15.5	8.7	5.8	22.652	47.57	11.49
	20.5	.	F.	5.9	6.5	0.0	27.2	23.300	46.27	12.79
	22.0	.	T.	8.3	8.0	0.8	29.1	23.138	47.08	11.98
	22.6	.	T.	2.3	2.3	26.4	26.5	23.534	45.70	13.36
	26.5	.	T.	7.7	8.7	2.2	29.9	23.048	47.88	11.18
	27.4	.	F.	2.3	2.5	26.2	23.0	23.480	47.41	11.65
	29.1	.	T.	7.8	7.7	0.3	29.0	23.113	47.81	11.25
	29.5	.	T.	6.9	6.8	0.1	28.6	23.158	47.73	11.33
	31.5	.	F.	7.6	7.9	0.6	29.1	23.211	46.23	12.83
September	4.5	.	H.	28.9	29.5	22.3	18.5	23.725	47.37	11.69
	5.1	.	T.	9.6	9.8	4.0	2.2	22.980	47.16	11.90
	5.5	.	T.	8.1	7.6	1.2	1.0	23.114	47.03	12.03
	7.4	.	F.	9 29.3	28.8	23.5	20.0	23.738	46.55	12.51
	7.5	.	F.	2.8	2.3	27.4	23.4	23.574	45.50	13.56
	8.0	.	H.	9 22.5	23.3	17.3	12.7	24.256	45.08	13.98
	8.4	.	H.	9 21.7	22.3	16.0	13.1	24.267	45.63	13.43
	10.4	.	H.	26.0	26.7	20.3	17.0	23.835	47.99	11.07
	10.5	.	H.	24.3	25.1	18.3	14.8	23.998	47.38	11.68
	11.4	.	H.	28.6	0.0	21.8	19.3	23.644	48.49	10.57
	12.1	.	T.	10.3	10.1	2.5	2.4	23.010	46.77	12.29
	16.4	.	H.	17.7	18.8	12.4	9.9	24.379	47.47	11.59
	17.4	.	H.	9 16.2	15.9	11.5	9.1	24.570	46.08	12.98
	18.0	.	T.	9.5	8.9	5.3	5.0	22.974	46.47	12.59
	18.5	.	H.	9 11.5	11.0	7.4	6.5	24.844	45.97	13.09
	19.1	.	F.	1.6	0.0	27.2	27.2	23.546	45.92	13.14
	19.4	.	H.	9 9.5	9.1	5.5	3.2	24.959	46.49	12.57
	21.2	.	T.	10.5	9.8	5.4	5.4	22.874	47.40	11.66
	21.4	.	H.	10 1.5	1.1	26.2	25.0	23.421	48.37	10.69
			F.	12.1	11.5	6.5	4.4	22.720	48.92	10.14
	28.0	.	H.	7.0	7.6	1.6	29.5	23.049	48.59	10.47
	29.0	.	T.	10.7	10.8	4.4	4.1	22.923	46.93	12.13
	30.0	.	F.	22.1	21.0	16.4	17.1	24.133	46.79	12.27
	30.3	.	F.	2.8	2.1	27.3	25.4	23.527	45.80	13.26
	30.5	.	F.	3.0	3.0	28.5	27.5	23.438	46.07	12.99
October	1.0	.	T.	8.6	7.6	3.1	3.5	23.066	46.55	12.51
	1.5	.	T.	10.6	10.8	5.7	4.5	23.050	44.60	14.46
	2.3	19	N.	7.9	8.9	2.6	1.4	23.069	47.22	11.84
	5.3	19	N.	10.0	10.2	4.2	3.2	23.064	46.89	12.17
	5.5	0	N.	6.8	7.1	1.4	0.4	23.191	46.42	12.64
	6.0	.	F.	8.0	7.0	2.0	1.2	23.130	46.71	12.35
	6.3	.	F.	1.3	0.8	25.2	24.2	23.503	47.69	11.37
	6.5	.	F.	4.2	4.8	29.4	28.4	23.304	46.89	12.17
	7.5	.	T.	8.0	8.2	1.6	0.5	23.043	48.04	11.02

Day and sidereal hour.			Observer.	READINGS OF MICROSCOPE MICROMETERS.				Telescope Micrometer.	Circle Reading.	Zenith Point Correction.
				I.	II.	III.	IV.			
									179° 59′	0° 0′
1868.	d.	h.		r. "	"	"	"	r.	"	"
October	8.8	.	N.	6.8	6.2	2.3	1.8	23.324	44.03	15.03
	9.1	.	F.	0.2	29.7	26.7	24.7	23.800	43.19	15.87
	11.9	12	N.	7.4	7.4	2.5	1.6	23.131	46.50	12.56
	12.3	18.6	N.	6.7	6.4	1.0	0.6	23.353	44.18	14.88
	12.4	23	N.	6.7	6.6	1.3	1.0	23.301	44.75	14.31
	13.0	13.8	F.	4.8	4.0	0.0	28.0	23.558	43.02	16.04
	13.2	.	F.	1.1	0.6	25.6	24.4	23.521	47.35	11.71
	13.4	0	F.	3.0	2.5	27.3	27.6	23.576	44.33	14.73
	16.2	19	F.	5.8	6.5	0.9	0.6	23.131	47.78	11 28
	16.5	1	F.	9.0	8.9	3.9	3.0	23.141	44.89	14.17
	17.0	.	T.	3.5	2.6	28.2	26.7	23.451	46.12	12.94
	17.3	.	T.	5.8	5.0	0.5	29.0	23.289	46.26	12.80
	17.5	.	T.	5.4	5.4	1.4	29.7	23.433	43.66	15.40
	22.3	20.7	N.	5.7	6.0	1.7	2.0	23.243	45.24	13.82
	23.1	16	F.	5.2	4.2	1.7	0.4	23.431	43.79	15.27
	23.3	20	F.	3.6	3.0	29.3	29.1	23.570	43.29	15.77
	23.5	2	F.	1.8	1.6	28.4	28.0	23.658	43.31	15.75
	24.0	.	T.	2.2	0.5	28.1	26.6	23.631	44.26	14.80
	24.3	.	T.	4.9	3.5	29.3	28.5	23.385	45.82	13.24
	24.7	.	T.	1.0	29.3	26.2	24.9	23.684	44.96	14.10
	26.0	.	E.	13.8	8.2	9.0	7.3	22.816	46.48	12.58
	26.3	.	E.	10.6	8.8	5.3	4.5	22.968	46.44	12.62
	26.4	.	E.	11.2	9.5	4.7	4.5	22.949	46.55	12.51
	28.4	.	T.	8.0	7.5	1.7	1.3	23.102	47.19	11.87
	28.8	.	T.	10.3	9.2	5.2	4.2	22.980	46.35	12.71
	29.0	.	E.	9.3	8.6	6.0	3.0	23.017	46.26	12.80
	29.3	.	E.	9.6	8.0	5.2	3.5	22.971	47.10	11.96
	29.4	.	E.	9.2	7.9	5.2	3.1	23.094	45.46	13.60
	30.0	.	F.	4.6	4.5	1.7	29.6	23.368	45.02	14.04
	30.2	21	F.	4.2	3.0	29.7	29.2	23.412	45.43	13.63
	30.3	0	F.	5.3	4.3	0.0	29.5	23.348	45.65	13.41
November	2.7	8	F.	2.9	2.1	29.0	27.6	23.465	45.74	13.32
	3.0	.	E.	3.9	2.5	0.2	27.3	23.408	46.04	13.02
	4.0	.	T.	4.1	3.8	1.4	29.9	23.235	47.36	11.70
	4.4	.	T.	8.0	7.7	2.6	2.7	22.977	48.36	10.70
	5.2	20.6	N.	9.8	9.0	4.2	2.9	22.930	47.84	11.22
	5.4	23	N.	8.5	7.6	3.0	1.8	23.032	47.53	11.53
	5.7	7	N.	5.4	4.6	0.2	28.7	23.282	46.70	12.36
	6.5	.	E.	8.9	7.3	4.0	4.1	23.064	46.20	12.86
	6.8	.	E.	6.6	5.8	2.6	2.8	23.264	44.75	14.31
	7.0	.	T.	6.1	6.3	3.4	1.5	23.290	44.48	14.58
	7.4	.	T.	5.6	5.2	0.7	0.8	23.202	47.09	11.97
	9.3	23	N.	11.0	10.7	5.4	4.0	22.781	48.76	10.30
	9.7	8	N.	8.8	8.4	3.2	1.7	22.967	48.24	10.82
	10.0	.	N.	13.7	12.6	8.1	5.0	22.679	48.29	10.77
	11.0	.	T.	16.0	16.3	10.6	8.4	23.491	48.23	10.83
	11.4	.	T.	14.5	14.2	9.1	6.6	23.627	47.87	11.19
	11.7	.	T.	14.2	14.3	8.9	7.5	23.719	46.32	12.74
	11.9	15	N.	8.1	8.0	3.7	2.5	23.181	44.93	14.13
	12.3	23	N.	7.1	6.9	2.8	1.1	23.188	45.89	13.17
	12.7	.	N.	5.8	5.8	2.6	0.8	23.289	45.08	13.98
	13.0	.	E.	5.1	4.7	2.7	28.9	23.341	45.19	13.87
	13.5	.	E.	4.5	3.8	0.7	28.6	23.387	45.43	13.63
	14.0	.	T.	5.7	4.5	1.0	1.6	23.299	45.48	13.58
	14.5	.	T.	7.7	6.6	2.5	3.5	23.081	46.93	12.13
	14.7	.	T.	11.7	10.5	6.4	6.7	22.861	46.54	12.52
	18.0	.	T.	7.0	5.9	1.6	1.0	23.146	47.18	11.89
	18.5	.	T.	7.8	7.0	2.6	2.8	23.003	48.16	10.90
	18.7	.	T.	4.3	3.0	0.3	29.5	23.248	47.70	11.36
	19.3	1	N.	5.6	4.0	0.6	29.6	23.222	47.40	11.66
	21.3	.	T.	9 29.2	27.4	24.6	22.5	23.618	47.89	11.17
	22.9	.	N.	6.4	4.4	2.6	2.3	23.252	45.46	13.60
	23.2	.	F.	9 27.6	25.9	23.6	22.8	23.743	46.92	12.14
	23.7	8	F.	0.5	29.2	27.7	25.9	23.563	46.30	12.76
	24.3	.	H.	5.8	4.6	1.7	0.6	23.244	46.34	12.72
	24.5	.	H.	3.4	2.2	29.9	28.3	23.340	47.11	11.95
	26.4	.	H.	3.4	3.3	29.5	29.4	23.237	48.23	10.83
	27.4	.	T.	2.8	1.4	28.6	27.9	23.272	48.91	10.15
	28.0	.	T.	0.7	28.5	26.0	27.3	23.510	47.32	11.74
	30.3	.	F.	10 4.8	3.8	1.2	0.0	23.170	48.21	10.85
	30.5	5	F.	10 1.5	0.4	27.3	26.5	23.424	47.86	11.20
December	1.4	.	T.	5.2	4.4	1.2	0.7	23.103	48.79	10.27
	1.6	.	T.	6.3	6.1	2.2	2.2	23.118	47.25	11.81
	2.3	0	F.	4.8	3.4	1.6	0.7	23.336	45.50	13.56
	2.6	.	F.	9 29.0	28.3	27.4	26.0	23.645	45.72	13.34
	3.0	17	N.	6.4	5.0	3.2	2.4	23.241	45.33	13.73
	5.3	.	H.	2.3	1.5	29.7	27.8	23.299	48.37	10.69

Day and sidereal hour.			Observer.	READINGS OF MICROSCOPE MICROMETERS.				Telescope Micrometer.	Circle Reading.	Zenith Point Correction.
				I,	II.	III.	IV.			
									179° 59′	0° 0′
1868.	d.	h.		r. ″	″	″	″	r.	″	″
December	5.5	.	T.	2.2	0.8	28.2	28.1	23.367	47.81	11.25
	5.7	.	T.	8.7	7.5	5.0	5.4	22.893	48.24	10.82
	8.4	3	F.	0.8	28.8	27.0	26.6	23.605	45.79	13.27
	8.7	9	F.	7.0	5.5	3.8	3.1	23.171	45.78	13.28
	9.0	.	T.	4.8	3.2	0.9	0.9	23.334	45.69	13.37
	9.4	.	T.	13.5	12.0	10.3	9.2	23.753	45.77	13.29
	10.4	3	N.	6.4	5.0	3.6	2.2	23.245	45.21	13.85
	10.6	7.5	N.	5.2	3.9	2.4	0.7	23.389	44.26	14.80
	12.0	.	T.	7.1	5.5	4.6	6.4	23.197	44.34	14.72
	12.5	.	T.	4.2	2.5	1.8	1.3	23.407	44.58	14.48
	14.4	3	N.	8.1	6.5	5.6	4.0	23.095	45.76	13.30
	17.3	2	N.	9.3	8.0	5.6	4.6	22.909	47.76	11.30
	17.5	5.5	N.	9.4	8.3	5.3	4.2	22.967	46.95	12.11
	17.5	6.5	N.	9.3	8.2	5.6	4.3	22.945	47.23	11.83
	18.0	18.5	F.	12.6	11.0	9.3	8.5	22.716	47.24	11.82
	18.3	3	F.	11.0	9.8	7.5	5.8	22.837	47.22	11.84
	18.6	8	F.	4.1	2.9	1.0	29.7	23.218	48.00	11.06
	19.0	.	F.	13.4	11.6	10.5	9.7	22.509	49.45	9.61
	19.5	.	T.	13.4	12.0	10.1	9.4	22.579	48.46	10.60
	21.0	.	N.	10.0	8.6	5.2	4.4	22.832	48.76	10.30
	21.3	2	N.	7.9	6.8	3.4	3.3	22.916	49.19	9.85
	21.5	6	N.	9.3	8.2	5.4	4.7	22.864	48.44	10.62
	22.0	18.5	F.	5.5	4.3	3.0	2.3	23.062	48.53	10.53
	22.3	3	F.	6.4	5.6	2.9	2.4	22.993	49.03	10.03
	23.0	.	T.	14.0	13.2	11.1	10.2	22.495	48.83	10.23
	23.4	.	T.	2.4	1.0	29.7	28.7	23.421	46.38	12.68
	23.5	.	T.	4.3	3.2	1.8	1.1	23.279	46.38	12.68
	25.3	4	T.	0.7	1.0	0.3	28.8	23.517	45.15	13.91
	26.5	.	T.	9.1	8.4	7.2	5.4	22.934	46.74	12.32

OBSERVATIONS

WITH THE

MERIDIAN TRANSIT INSTRUMENT.

1868.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868. Mar. 19 Y.	60 Aurigæ	1	. .	. .	. .	54.5	56.0	57.5	58.9	0.2	. .	. .	. .	43 57.42	− 0.38	+13.68	6 44 10.72	+ 7.73
	61 Aurigæ	2	22.1	24.8	26.1	38.5	39.7	41.3	42.7	44.2	56.5	57.9	0.6	44 41.31	0.38	13.69	6 44 54.62	7.73
	62 Aurigæ	3	31.2	33.8	35.2	47.6	48.8	50.2	51.8	53.1	5.4	6.7	9.5	49 50.30	0.38	13.71	6 50 3.63	7.67
	Lalande 13601	4	. .	28.8	30.1	42.0	43.3	44.8	46.3	47.5	59.3	0.7	. .	55 44.76	0.35	13.74	6 55 58.15	7.46
	Lacaille 2615	5	. .	. .	. .	25.5	26.7	29.0	45.2	47.4	49.0	50.4	51.7	1 40.61	28.25	13.77	7 1 26.13	4.36
	Weisse 283	6	35.1	37.1	38.2	48.1	49.2	50.5	51.8	52.8	2.7	3.8	5.9	9 50.47	0.11	13.81	7 10 4.17	4.83
	* − 14° 57′	7	20.9	22.0	23.2	24.6	25.6	. .	54.1	56.3	57.6	59.1	0.3	17 40.37	17.16	13.85	7 17 37.06	4.81
	* − 14° 59′	8	54.8	57.0	58.2	8.1	9.2	10.4	11.8	12.7	22.6	23.9	26.0	19 10.43	0.11	13.85	7 19 24.17	4.80
	α Canis Minoris	†9	55.4	57.4	58.5	8.1	9.3	10.4	11.5	12.6	22.4	23.5	25.6	32 10.43	0.18	13.91	7 32 24.16	5.62
	β Geminorum	10	44.1	46.4	47.7	58.7	59.8	1.3	2.7	3.8	14.6	15.9	18.3	37 1.21	0.29	13.93	7 37 14.85	6.65
	Weisse 1243	†11	17.5	19.5	20.8	30.6	31.6	32.9	33.9	35.0	45.0	46.0	48.2	41 32.82	0.12	13.96	7 41 46.66	4.85
	Weisse 1371	12	20.2	22.4	23.5	33.4	34.4	35.8	36.9	38.0	47.9	49.0	51.1	46 35.69	− 0.22	13.99	7 46 49.46	+ 5.98
	λ Ursæ Minoris, S. P.	13	. .	. .	. .	. .	14.0	18.5	20.5	. .	. .	. .	. .	55 17.67	+ 19.83	14.02	. . . .	− 94.12
	O. Arg. N. 8632	14	. .	. .	. .	14.9	17.0	19.6	22.0	24.0	. .	. .	. .	0 19.50	− 0.70	14.05	8 0 32.85	+ 9.10
	Carrington 1186	15	. .	. .	. .	25.8	32.5	40.0	47.9	54.3	. .	. .	. .	5 40.10	2.33	14.08	5 5 51.85	17.29
	Lalande 16237	16	47.6	50.0	51.3	1.8	3.0	4.3	5.7	6.8	17.3	18.5	20.8	11 4.28	0.27	14.11	8 11 18.12	6 31
	Weisse (2) 364	17	36.0	38.4	39.4	50.0	51.3	52.6	54.0	55.0	5.5	6.8	9.0	16 52.55	0.27	14.14	8 17 6.42	6.26
	O. Arg. S. 8654	18	19.8	22.3	23.5	34.2	35.2	36.6	37.8	38.9	49.6	50.9	53.2	25 36.55	0.07	14.17	8 25 50.65	3.99
	Weisse (2) 708	19	32.6	34.9	35.8	46.1	47.2	48.5	49.8	50.9	1.2	2.3	4.6	29 48.54	0.25	14.20	8 30 2.49	6.00
	Weisse (2) 756	20	58.7	0.8	1.8	12.3	13.4	14.6	16.0	16.9	27.3	28.4	30.7	31 14.63	− 0.25	14.20	8 31 28.58	5.99
	* + 20° 12′	21	16.9	19.1	20.2	. .	. .	. .	. .	. .	. .	. .	. .	32 18.73	+ 13.89	14.21	8 32 46.83	5.98
	B. A. C. 2919	22	. .	. .	. .	31.8	33.1	34.2	35.5	36.5	. .	. .	. .	32 34.22	− 0.25	14.21	8 32 48.18	5.98
	Weisse (2) 1252	23	51.7	54.0	55.1	5.5	6.6	7.9	8.9	10.2	20.6	21.8	24.0	51 7.85	0.26	14.30	8 51 21.89	5.92
	Weisse (2) 1322	24	13.3	15.6	16.6	27.0	28.1	29.4	30.8	31.8	42.1	43.3	45.5	54 29.41	0.26	14.31	8 54 43.46	5.89
	Weisse (2) 1438	25	42.3	44.5	45.5	55.8	56.9	58.3	59.5	0.6	11.0	12.1	14.3	58 58.25	0.26	14.33	8 59 12.32	5.84
	Weisse (2) 1446	26	. .	. .	. .	32.5	33.7	36.0	51.7	54.0	55.4	56.7	58.0	59 47.25	27.67	14.34	8 59 33.92	5.84
	ε Leonis	27	51.7	54.0	55.1	5.8	6.9	8.2	9.5	10.6	21.3	22.4	24.7	38 8.20	0.27	14.52	9 38 22.45	5.69
	δ Leonis	28	35.7	37.8	38.9	49.4	50.4	51.7	53.1	54.1	4.5	5.6	7.8	6 51.73	0.26	+14.96	11 7 6.43	5.09
24	δ Canis Majoris	29	51.0	53.3	54.4	5.2	6.4	7.6	9.0	10.1	20.9	22.1	24.5	3 7.68	0.14	− 5.43	. . . .	4.37
	* + 41° 48′	30	40.9	43.5	45.1	58.1	59.3	0.8	2.5	3.9	17.8	18.2	21.1	9 1.02	0.26	5.43	7 8 55.33	7.90
	δ Geminorum	31	4.1	6.3	7.5	17.9	19.1	20.3	21.6	22.7	33.1	34.3	36.6	12 20.32	0.19	5.42	. . . .	6.68
	Piazzi 67	32	32.6	38.1	41.1	7.7	10.6	13.7	17.3	19.9	46.3	49.7	55.3	17 13.87	0.57	5.42	7 17 7.88	11.76
	Lalande 14465	33	34.4	37.1	38.3	50.1	51.3	52.8	54.2	55.5	7.3	8.6	11.3	20 52.81	0.23	5.42	7 20 47.16	7.34
	Weisse (2) 789	34	0.9	3.7	5.2	18.0	19.2	21.0	22.5	23.8	36.6	38.2	40.8	28 20.90	− 0.26	5.40	7 28 15.24	7.69
	Weisse (2) 791	35	33.4	35.2	36.7	38.4	41.6	. .	1.2	3.9	5.6	7.3	8.8	28 21.21	+ 0.20	5.40	7 28 16.01	7.69
	* − 23° 56′	36	45.6	47.8	49.0	59.6	0.6	1.8	3.1	4.4	15.0	16.0	18.4	33 1.94	− 0.14	5.40	7 32 56.40	4.35
	Lacaille 2929	37	58.9	1.1	2.4	13.1	14.2	15.4	16.7	17.8	28.5	29.8	31.1	38 15.36	0.14	5.40	7 38 9.82	4.25
	* + 38° 11′	38	44.2	46.9	48.1	0.4	1.7	3.3	4.7	6.0	18.4	19.8	21.6	43 3.19	0.24	5.39	7 42 57.56	7.36
	* + 20° 32′	39	17.1	19.2	20.3	30.6	31.7	33.0	34.1	35.3	45.8	46.8	49.0	46 32.99	0.18	5.38	7 46 27.43	6.38
	* − 30° 0′	40	13.6	15.8	17.2	28.4	29.5	30.9	32.3	34.5	44.5	45.8	48.3	52 30.98	0.14	5.38	7 52 25.46	3.90
	O. Arg. S. 7798	†41	29.8	32.2	33.5	44.7	45.8	47.2	48.7	49.8	1.1	2.2	4.5	54 47.23	0.14	5.37	7 54 41.72	3.89
	O. Arg. S. 7882	42	. .	. .	. .	52.6	54.0	56.2	12.6	14.6	16.1	17.5	18.9	58 7.81	18.18	5.37	7 57 44.26	4.23
	Lalande 15882	43	23.5	26.1	27.4	39.3	40.6	42.0	43.5	44.7	56.6	58.0	0.5	1 42.02	0.23	5.37	8 1 36.42	+ 7.06
	λ Ursæ Minoris, S. P.	44	. .	. .	. .	. .	. .	. .	. .	. .	16.0	10.0	59.0	7 28.33	26.30	5.36	. . . .	− 99.41
	B. A. C. 2811	45	5.2	7.5	8.6	19.5	20.5	21.9	23.2	24.3	35.0	36.2	38.6	17 21.86	0.14	5.35	8 17 16.37	+ 4.06
	O. Arg. S. 8660	46	51.3	53.7	54.8	5.4	6.6	7.8	9.2	10.3	21.0	22.1	24.5	26 7.88	0.14	5.34	8 26 2.40	4.08
	* + 20° 41′	†47	36.4	38.6	39.8	50.0	51.2	52.4	53.7	54.7	5.1	6.2	8.5	30 52.42	0.18	5.33	8 30 46.91	6.09
	* + 20° 35′	48	. .	. .	. .	33.0	34.0	35.4	36.6	37.7	. .	. .	. .	31 35.34	0.18	5.33	8 31 29.83	6.08
	* + 20° 35′	49	57.1	59.3	0.5	10.7	11.8	13.1	14.4	15.4	25.6	26.8	29.2	32 13.08	0.18	5.33	8 32 7.57	6.08
	39 Cancri	50	. .	. .	. .	49.7	50.7	53.0	8.8	11.1	12.3	13.8	14.9	33 4.29	− 27.49	− 5.33	8 32 31.47	+ 6.07

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
March 19, 9.0	+ 14.34	+ 0.290	− 0.21	− 0.16
24, 8.1	− 5.36	+ 0.071	− 0.06	− 0.15

9. Poor observation.
11. Close double, observed sd. and larger.
41. Preceded by another star to sd.
47. This and following stars in Præsepe.

r.

March 18. Image west 0.70. Clamp west.
Image west 0.32. Clamp east.
March 19. Observations made clamp west.

r.

March 19, 11h 30m. Image west 0.56. Clamp west.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Mar. 24	40 Cancri	1	. .	. .	. .	39.8	40.8	42.1	43.4	44.5	. .	. .	. .	32 42.12	− 0.18	− 5.33	8 32 36.61	+ 6.07
Y.	Weisse (2) 829	2	28.8	31.1	32.1	42.4	43.5	44.8	46.1	47.2	57.5	58.7	0.9	33 44.83	0.18	5.33	8 33 39.32	6.06
	B. A. C. 2931	3	. .	. .	. .	19.0	20.1	21.5	22.7	23.7	. .	. .	. .	34 21.40	0.18	5.33	8 34 15.89	6.05
	Lacaille 3509	4	20.6	22.8	24.2	34.8	36.0	37.4	38.7	39.9	50.6	51.7	54.2	40 37.35	0.14	5.32	8 40 31.89	3.99
	Lacaille 3511	5	. .	. .	. .	7.1	8.4	10.7	27.2	29.5	30.9	32.4	33.8	41 22.50	28.62	5.32	8 40 48.56	3.99
	Weisse (2) 1098	6	45.7	48.0	49.1	59.7	0.7	2.0	3.3	4.4	15.0	16.1	18.4	45 2.04	0.19	5.31	8 44 56.54	6.08
	Weisse (2) 1222	7	53.0	55.1	56.1	5.8	6.9	8.1	9.2	10.2	19.8	21.0	23.1	48 9.03	0.15	5.31	8 48 3.57	5.35
	Weisse (2) 1245	8	52.4	54.7	55.8	6.6	7.7	8.9	10.3	11.3	22.0	23.2	25.5	51 8.95	0.19	5.31	8 51 3.45	6.10
	Weisse (2) 1324	9	51.6	54.2	55.5	7.9	9.2	10.7	12.2	13.5	25.7	27.1	29.8	55 10.67	0.24	5.30	8 55 5.13	6.68
	Weisse (2) 1475	10	13.0	15.2	16.3	26.7	27.8	29.1	30.4	31.4	41.9	43.0	45.2	0 29.09	0.19	5.30	9 0 23.60	5.91
	α Leonis	11	11.6	13.8	14.8	24.8	25.8	27.0	28.2	29.3	39.1	40.2	42.4	1 27.00	0.17	− 5.23	. . . .	5.22
31	Groombridge 1343	12	44.2	46.8	48.1	0.5	1.8	3.2	4.7	5.9	18.4	19.9	22.5	28 3.27	0.21	+ 10.84	7 28 13.90	7.67
	* + 38° 36′	13	. .	. .	. .	38.8	40.0	41.7	43.2	44.6	. .	. .	. .	28 41.66	0.21	10.84	7 28 52.29	7.65
	Groombridge 1352	14	52.0	. .	56.0	8.3	9.5	11.0	12.6	14.0	26.3	. .	30.1	31 11.09	0.24	10.84	7 31 21.72	7.64
	β Geminorum	15	47.0	49.2	50.3	1.2	2.4	3.8	5.2	6.4	17.3	18.5	20.9	37 3.84	0.18	10.85	7 37 14.51	6.88
	* + 0° 29′	†16	. .	. .	. .	17.0	18.0	19.2	20.5	21.5	. .	. .	. .	45 19.24	0.13	10.85	7 45 29.96	5.61
	* + 0° 30′	17	26.7	28.9	29.8	39.4	40.4	41.6	42.7	43.8	53.4	54.5	56.0	46 41.62	0.13	10.85	7 46 52.34	5.61
	Lacaille 3073	18	44.9	47.2	48.4	59.5	0.7	2.0	3.4	4.6	15.9	17.0	19.5	51 2.10	0.14	10.86	7 51 12.84	4.05
	B. A. C. 2651	19	39.6	42.0	43.3	54.4	55.6	57.0	58.3	59.5	10.6	11.9	14.3	51 56.95	0.12	10.86	7 52 7.69	4.05
	* − 30° 2′	20	. .	. .	. .	. .	. .	14.3	15.7	16.8	28.0	29.4	31.7	54 22.65	8.44	10.86	7 54 25.07	+ 4.04
	λ Ursæ Minoris, S.P.	21	. .	. .	. .	. .	. .	. .	. .	. .	5.0	1.0	49.0	7 18.33	11 28.32	10.86	. . . .	− 106.70
	O. Arg. S. 8383	22	37.5	39.9	41.0	51.6	52.7	54.0	55.4	56.6	6.9	8.2	10.5	13 54.03	0.12	10.88	8 14 4.79	+ 4.26
	Lacaille 3266	23	. .	. .	. .	58.5	0.0	2.3	19.2	21.5	23.0	24.5	26.0	15 14.38	29.40	10.88	8 14 55.86	4.02
	Lacaille 3321	24	20.1	22.6	23.8	35.2	36.4	37.7	39.1	40.4	51.6	52.9	55.5	21 37.75	0.12	10.89	8 21 48.52	3.83
	O. Arg. S. 8654	25	23.0	25.4	26.5	37.1	38.3	39.6	40.8	41.9	52.6	53.8	56.2	25 39.56	0.12	10.89	8 25 50.33	4.21
	O. Arg S. 8660	26	. .	. .	. .	4.5	6.7	8.0	24.4	26.7	28.0	29.5	31.0	26 19.85	28.36	10.89	8 26 2.38	4.21
	* + 20° 1′	†27	. .	. .	. .	53.5	54.6	55.9	57.1	58.2	. .	. .	. .	29 55.86	0.16	10.89	8 30 6.59	6.18
	* + 20° 1′	28	. .	. .	. .	59.9	1.1	2.3	3.6	4.6	. .	. .	. .	31 2.30	0.16	10.89	8 31 13.03	6.17
	B. A. C. 2907	29	. .	. .	. .	22.0	22.9	24.3	25.6	26.7	. .	. .	. .	31 24.30	0.16	10.89	8 31 35.03	6.17
	B. A. C. 2914	30	50.3	52.4	53.5	. .	. .	. .	. .	. .	18.8	19.8	22.1	32 6.15	0.16	10.89	8 32 16.88	6.16
	Weisse (2) 790	31	. .	. .	. .	9.6	10.7	11.9	13.2	14.3	. .	. .	. .	32 11.94	− 0.16	10.89	8 32 22.67	6.16
	* + 20° 2′	32	34.4	35.7	37.1	38.4	41.1	. .	44.8	47.2	48.4	49.9	51.1	32 12.81	+ 0.21	10.89	8 32 23.91	6.16
	* + 20° 0′	33	. .	. .	. .	. .	. .	. .	5.3	7.6	8.9	10.3	11.6	33 8.74	− 35.25	10.89	8 32 44.38	6.16
	ε Cancri	34	. .	. .	. .	. .	. .	. .	14.0	16.5	17.8	19.2	20.5	33 17.60	35.25	10.89	8 32 53.24	6.15
	B. A. C. 2925	35	. .	. .	. .	. .	. .	. .	43.5	45.7	47.1	48.5	49.7	33 46.90	35.25	10.89	8 33 22.54	6.15
	* + 20° 1′	36	. .	. .	. .	. .	. .	. .	14.4	16.7	17.9	19.4	20.7	34 17.82	35.25	10.89	8 33 53.46	6.15
	Weisse (2) 1016	37	47.5	49.8	50.9	1.4	2.6	3.8	5.0	6.2	16.7	17.9	20.1	41 3.81	− 0.17	10.90	8 41 14.54	6.21
	Weisse (2) 1018	38	28.7	30.0	31.4	32.7	35.3	. .	40.4	42.7	44.0	45.6	46.8	41 7.76	+ 0.21	10.90	8 41 18.87	6.21
	Weisse (2) 1145	39	27.7	. .	31.0	41.4	42.6	43.8	45.1	56.2	56.7	. .	0.0	46 43.83	− 0.17	10.91	8 46 54.57	6.15
	Weisse (2) 1181	40	55.6	57.8	59.0	9.4	10.5	11.8	13.0	14.2	24.4	25.7	27.9	48 11.75	0.17	10.91	8 48 22.49	6.14
	Weisse (2) 1291	41	42.8	45.1	46.2	56.7	57.7	58.9	0.2	1.3	11.7	12.9	15.1	52 58.96	0.17	10.91	8 53 9.70	6.09
	Weisse (2) 1439	42	27.5	29.8	30.8	40.8	41.8	43.0	44.2	45.3	55.2	56.3	58.5	56 43.02	0.12	10.91	8 56 53.81	4.68
	* − 31° 54′	43	34.6	37.3	38.3	49.7	50.9	52.4	53.7	54.8	6.1	7.4	10.2	58 52.31	0.12	10.92	8 59 3.11	3.74
	κ Cancri	44	. .	. .	. .	. .	. .	. .	56.2	58.4	59.6	1.1	2.4	0 59.54	33.75	10.92	9 0 36.71	5.62
	Weisse (2) 79, (1st *)	45	55.4	57.6	58.8	. .	. .	. .	. .	. .	24.4	25.5	27.7	5 11.57	0.16	10.92	9 5 22.33	5.94
	Weisse (2) 79, (2d *)	46	. .	. .	. .	10.2	11.3	12.4	13.7	14.9	. .	. .	. .	5 12.50	0.16	10.92	9 5 23.26	5.94
	Weisse (2) 207	47	50.4	52.6	53.7	4.0	5.0	6.3	7.6	8.6	18.9	20.0	22.3	11 6.31	0.16	10.93	9 11 17.08	5.88
	* + 19° 58′	48	30.3	32.5	33.6	43.9	45.0	46.2	47.5	48.6	58.7	59.9	2.2	13 46.22	0.16	10.93	9 13 56.99	5.88
	α Hydræ	49	1.2	3.4	4.4	54.0	55.1	56.4	57.6	58.6	8.2	9.4	11.5	20 56.35	0.12	10.93	9 21 7.16	4.83
	O. Arg. S. 9789	50	0.4	2.6	3.8	14.8	16.0	17.4	18.7	20.0	30.9	32.3	34.7	24 17.42	− 0.12	+ 10.94	9 24 28.24	+ 3.85

16. Preceded by smaller star to northward.
27. This and following stars in Præsepe.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Mar. 31, 10.2	+ 10.98	+ 0.052	− 0.06	− 0.13

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868. Mar. 31 Y.	* − 28° 27′	1	52.9	55.3	56.4	7.4	8.6	9.9	11.2	12.4	23.3	24.5	26.9	26 9.89	− 0.12	+10.94	9 26 20.71	+ 3.90
	* + 10° 14′	2	6.9	9.0	10.0	19.9	20.9	22.1	23.4	24.4	34.1	35.2	37.3	31 22.11	0.14	10.94	9 31 32.91	5.41
	Lalande 19134	3	50.8	52.8	53.8	3.6	4.7	5.8	7.1	8.1	17.9	19.0	21.0	38 5.87	0.14	10.95	9 38 16.68	5.35
	* + 12° 4′	4	44.7	46.8	47.9	7.8	8.8	10.0	11.3	12.3	12.0	13.2	15.4	40 10.02	0.14	10.95	9 40 20.83	5.42
	B. A. C. 3367	5	48.4	50.9	52.1	4.1	5.2	6.6	8.0	9.4	21.4	22.8	25.4	44 6.75	0.12	10.96	9 44 17.59	3.49
	* − 35° 37′	6	. .	. .	. .	44.0	45.4	46.8	48.2	49.6	1.5	2.9	5.3	44 52.96	6.24	10.96	9 44 57.68	3.49
	* + 8° 19′	7	. .	. .	. .	22.0	23.3	24.5	25.7	26.7	. .	. .	. .	48 24.44	0.14	10.96	9 48 35.26	5.26
	Weisse (2) 1035	8	31.4	33.5	34.5	44.4	45.5	46.7	47.8	48.8	58.6	59.6	1.8	48 46.60	0.14	10.96	9 48 57.42	5.26
	B. A. C. 5356	9	56.9	59.4	0.7	11.9	13.2	14.7	16.1	17.2	28.7	30.0	32.5	54 14.66	0.19	10.96	9 54 25.43	5.94
	Weisse (2) 1172	10	30.2	32.8	34.0	46.5	47.7	49.3	50.9	52.1	4.6	6.0	8.7	55 49.35	0.21	10.96	9 56 0.10	6.13
	21 Leonis Minoris	11	. .	. .	. .	43.0	44.4	46.9	5.2	7.8	9.2	10.8	12.3	59 59.95	31.80	10.97	9 59 39.12	6.00
	Weisse 38	12	51.4	53.5	54.5	4.2	5.2	6.4	7.6	8.6	18.3	19.4	21.6	4 6.43	0.14	10.97	10 4 17.26	5.14
	Weisse 74	13	. .	52.7	53.9	3.7	4.6	5.8	7.0	8.0	17.7	18.8	. .	6 5.80	0.14	10.98	10 6 16.64	5.11
	Weisse (2) 179	14	24.5	25.7	27.1	28.4	29.7	. . .	1.6	4.0	5.5	7.2	8.5	9 46.22	19.26	10.98	10 9 37.94	5.73
	Lacaille 4250	15	50.6	53.0	54.2	5.7	6.8	8.3	9.6	10.9	22.4	23.6	26.1	14 8.29	0.12	10.98	10 14 19.15	3.71
	Lacaille 4267	16	20.9	23.2	24.3	34.8	36.0	37.2	38.6	39.6	50.1	51.4	53.6	16 37.25	0.12	10.98	10 16 48.11	4.12
	β Leonis Minoris	17	45.8	48.6	49.9	2.0	3.4	4.9	6.4	7.5	19.6	21.1	23.7	20 4.81	0.21	10.99	10 20 15.59	5.82
	O. Arg. S. 10666	18	48.2	50.8	51.9	3.0	4.2	5.5	6.8	7.9	19.6	20.5	22.8	23 5.56	0.12	10.99	10 23 16.43	3.85
	Weisse 517	19	. .	. .	. .	. .	. .	. .	9.5	11.8	12.9	14.2	15.5	30 12.78	33.18	11.00	10 29 50.60	4.75
	Weisse (2) 711	20	17.4	20.0	21.3	33.0	34.1	31.6	37.0	38.2	49.8	51.1	53.7	35 35.56	0.20	11.00	10 35 46.36	5.57
	Weisse 703	21	2.4	4.6	5.5	15.3	16.4	17.6	18.8	19.7	29.4	30.6	32.7	40 17.55	0.14	11.00	10 40 28.41	4.98
	l Leonis	22	54.1	56.2	57.3	7.1	8.1	9.3	10.6	11.5	21.4	22.5	24.7	42 9.35	0.14	11.01	10 42 20.22	5.10
	O. Arg. S. 10952	23	33.6	36.1	37.3	48.3	49.6	50.8	52.1	53.4	4.6	5.7	8.1	46 50.87	0.12	11.01	10 47 1.76	3.92
	Weisse (2) 1029	24	37.2	39.9	41.1	53.6	54.9	56.6	58.1	59.3	11.7	13.1	15.8	51 56.48	0.21	11.01	10 52 7.28	5.48
	* + 36° 54′	†25	36.4	39.1	40.4	52.4	53.7	55.2	56.8	58.0	10.0	11.3	13.9	55 55.20	0.21	11.02	10 56 6.01	5.41
		26																
	Lalande 21258		. .	. .	. .	1.5	3.0	6.0	26.6	29.5	31.1	33.2	34.9	59 20.72	− 35.93	11.02	10 58 55.81	5.43
	Lacaille 4624	27	10.3	12.5	13.7	25.0	26.0	27.4	28.6	30.0	. .	. .	. .	3 21.69	+ 5.57	11.03	11 3 38.29	3.95
	Weisse (2) 118	28	19.6	22.4	23.7	35.9	37.2	38.8	40.3	41.6	53.8	55.2	57.9	7 38.76	− 0.21	11.03	11 7 49.58	5.30
	* + 38° 15′	†29	.9	.5	.8	.2	.4	.8	.5	.7	.9	.3	.8	14 . .	0.21	11.03	. . . .	5.22
	Weisse (2) 416	30	41.0	43.7	44.9	57.4	58.7	0.2	1.7	3.0	15.3	16.8	19.5	23 0.20	0.21	11.04	11 23 11.03	5.13
	Lalande 21947	31	26.3	28.9	30.0	. .	43.6	45.1	46.6	. .	0.0	1.4	4.0	26 45.10	0.21	11.04	11 26 55.93	5.08
	Lalande 22059	32	6.0	8.6	9.8	21.6	22.9	24.3	25.7	26.8	38.5	39.9	42.5	31 24.24	0.12	11.05	11 31 35.17	5.02
	61 Ursæ Majoris	33	53.3	54.6	55.8	57.4	58.6	. .	32.3	34.9	36.4	38.1	39.5	34 16.09	20.16	11.05	11 34 6.98	5.00
	* + 38° 40′	34	. .	27.3	28.5	40.9	42.2	43.8	45.4	46.8	58.9	0.4	. .	37 43.80	0.21	11.05	11 37 54.64	4.97
	* + 24° 43′	35	. .	. .	. .	55.0	56.3	58.5	14.7	16.9	18.5	19.8	21.4	40 10.14	28.33	11.05	11 39 52.86	4.91
	Lalande 22357	36	45.5	48.1	49.4	1.6	3.1	4.5	5.9	7.2	19.3	20.8	23.4	44 4.44	0.21	11.06	11 44 15.29	4.90
	B. A. C. 4016	37	. .	. .	. .	52.6	54.1	56.5	14.5	16.8	18.4	20.2	21.5	47 9.32	31.08	11.06	11 46 49.30	3.97
	Lalande 22548	38	2.1	4.6	5.8	17.5	18.7	20.0	21.5	22.7	34.4	35.7	38.2	52 20.11	0.20	11.07	11 52 30.98	4.82
	Weisse (2) 1067	†39	. .	. .	. .	41.5	42.6	44.1	45.6	46.8	. .	. .	. .	54 44.12	0.21	11.07	11 54 54.98	4.81
	Weisse (2) 1067	†40	. .	. .	. .	58.9	0.4	2.8	21.3	23.9	25.6	27.3	28.7	55 16.11	32.14	11.07	11 54 55.04	4.81
	Weisse (2) 1190	41	10.3	12.9	14.2	26.5	27.8	29.4	30.8	31.9	44.2	45.6	48.3	0 29.26	0.21	11.07	12 0 40.12	4.73
	Lacaille 5066	42	34.4	35.6	37.0	38.5	39.6	. .	12.6	15.1	16.5	18.0	19.5	6 56.68	10.77	11.08	12 6 47.99	4.13
	B. A. C. 4128	43	39.5	40.7	42.0	43.6	44.7	. .	18.0	20.5	21.9	23.7	25.0	10 1.96	20.03	11.08	12 9 53.01	4.67
	* + 6° 28′	44	47.1	49.3	50.3	59.9	1.1	2.3	3.5	4.5	14.1	15.3	17.4	13 2.25	0.14	11.08	12 13 13.19	4.68
	Lalande 23269	45	23.3	26.0	27.4	39.6	40.9	42.5	44.0	45.3	57.4	58.8	1.5	19 42.43	0.21	11.09	12 19 53.31	4.54
	Weisse (2) 500	46	. .	. .	. .	30.9	32.4	34.6	50.8	53.2	54.4	56.0	57.3	24 46.20	28.28	11.09	12 24 29.01	4.62
	β Corvi	†47	2.0	4.2	5.5	16.1	17.2	18.3	19.6	20.7	31.1	32.3	34.6	27 18.33	− 0.12	11.10	12 27 29.31	4.53
	Polaris, S. P.	48	24.0	10.0	7.0	59.0	28.0	. .	. .	. .	. .	. .	. .	47 13.60	+22 44.77	11.12	. . . .	70.44
	* − 35° 27′	49	18.9	21.5	22.9	34.6	35.9	37.3	38.9	40.2	52.0	53.4	55.9	52 37.41	− 0.12	11.12	12 52 48.41	4.40
	Lalande 24271	50	42.7	45.3	46.8	59.0	0.3	1.6	3.3	4.5	16.7	18.3	20.8	56 1.75	− 0.21	+11.12	12 56 12.66	+ 4.20

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Mar. 31, 10.2	+ 10.98	+ 0.052	− 0.06	− 0.13

25. Probably in error 2ˢ.
29. Second uncertain.
39.40. Same star.
47. Unsteady.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868. Mar. 31	14 Canum Venat.	1	5.6	8.0	9.5	21.5	22.8	24.2	25.7	27.0	39.0	40.4	42.8	59 24.23	− 0.21	+11.13	12 59 35.15	+ 4.21
Y.	θ Virginis	2	42.6	44.7	45.7	55.3	56.4	57.5	58.7	59.8	9.4	10.6	12.6	2 57.57	0.13	+11.13	13 3 8.57	+ 4.64
April 8	λ Ursæ Min., S. P.	3	. .	. .	. .	. .	. .	. .	28.0	19.0	26.0	38.0	40.0	25 18.20	−28 55.39	− 7.41	. . . .	− 115.63
	ε Hydræ	4	39.9	42.0	43.1	52.8	53.8	55.0	56.1	57.3	6.9	8.0	10.2	39 55.01	+ 0.08	7.39	8 39 47.70	+ 5.69
	Lalande 17605	5	9.0	11.7	13.0	25.5	26.6	28.0	29.8	31.0	43.5	44.6	47.3	49 28.18	0.03	7.38	8 49 20.83	7.04
	68 Cancri	6	11.1	13.4	14.5	24.6	25.7	27.0	28.0	29.3	39.5	40.6	42.7	54 26.95	+ 0.06	7.37	8 54 19.64	6.03
	Weisse 1439	7	. .	. .	. .	13.1	14.3	16.3	32.0	34.5	35.7	37.0	38.3	57 27.65	− 26.63	7.37	8 56 53.65	4.81
	Weisse (2) 1438	8	. .	. .	. .	. .	. .	. .	51.7	54.3	55.6	56.9	58.3	59 55.36	36.01	7.37	8 59 11.98	6.13
	Weisse (2) 1446	9	. .	. .	. .	. .	. .	. .	13.3	15.9	17.2	18.6	19.8	0 16.96	− 36.03	7.37	8 59 33.56	6.13
	* − 28° 26′	10	14.7	16.8	18.3	29.2	30.3	31.7	33.0	34.2	45.3	46.4	48.6	3 31.68	+ 0.16	7.36	9 3 24.48	4.45
	c Ursæ Majoris	11	22.6	26.0	28.0	44.7	46.4	48.4	50.6	52.2	9.0	10.8	14.4	6 48.46	0.00	7.36	9 6 41.10	7.88
	Lalande 18288	12	. .	. .	. .	22.4	23.7	25.3	26.6	27.9	39.8	41.3	43.7	10 31.34	− 6.11	7.35	9 10 17.88	6.66
	α Lyncis	13	. .	. .	. .	. .	. .	. .	45.4	48.5	49.9	51.5	52.8	13 49.62	31.69	7.35	9 13 10.58	6.59
	h Ursæ Majoris	14	40.0	44.9	47.4	9.1	11.2	13.9	16.6	19.0	40.7	43.0	47.8	21 13.96	0.02	7.34	9 21 6.60	8.54
	ζ² Antliæ	15	. .	. .	. .	59.4	0.6	1.9	3.2	4.5	15.8	17.0	19.5	26 7.74	− 5.65	7.34	9 25 54.75	3.88
	* + 12° 39′	16	25.4	27.6	28.8	38.7	39.7	40.9	42.0	43.1	53.0	54.2	56.2	31 40.87	+ 0.06	7.33	9 31 33.60	5.60
	* + 12° 40′	17	13.7	14.8	16.4	17.6	19.8	. .	21.2	23.8	25.0	26.3	27.6	31 50.62	− 0.30	7.33	9 31 42.99	5.60
	ψ Leonis	18	25.0	27.2	28.4	38.4	39.4	40.6	41.7	42.7	52.9	54.0	55.9	36 40.56	+ 0.06	7.32	9 36 33.30	5.63
	B. A. C. 3339	19	. .	. .	. .	40.8	41.9	43.0	44.2	45.3	55.0	56.0	58.0	39 48.02	− 4.89	7.32	9 39 35.81	5.22
	Lacaille 4030	†20	46.6	49.3	50.4	2.6	4.0	5.5	6.8	8.3	20.4	21.7	23.9	43 5.41	+ 0.20	7.32	9 42 58.29	3.54
	Weisse (2) 978	21	. .	. .	. .	58.2	59.6	1.0	2.5	3.9	16.3	17.6	20.0	47 7.39	− 6.28	7.31	9 46 53.80	6.34
	B. A. C. 5356	22	14.9	17.4	18.7	30.1	31.2	32.7	34.0	35.3	46.7	48.1	50.4	54 32.68	+ 0.40	7.30	9 54 25.42	6.04
	* + 13° 30′	23	. .	. .	. .	38.3	39.2	40.4	41.7	42.7	52.6	53.8	55.8	56 45.56	− 5.06	7.30	9 56 33.20	5.46
	* + 13° 28′	24	41.3	43.5	44.6	54.5	55.5	56.8	58.1	59.1	9.0	10.2	12.3	57 56.81	+ 0.06	7.30	9 57 49.57	5.45
	Weisse (2) 1282	25	. .	. .	. .	. .	. .	. .	11.3	13.8	15.1	16.4	17.7	1 14.86	− 35.12	7.30	10 0 32.44	5.54
	Weisse (2) 49	26	. .	. .	. .	18.6	19.8	21.4	22.8	24.2	36.3	37.7	40.2	4 27.62	− 6.19	7.29	9 4 14.14	6.09
	Weisse (2) 179	27	27.9	30.3	31.6	42.8	43.9	45.3	46.7	47.8	58.9	0.2	2.7	9 45.28	+ 0.04	7.29	10 9 38.03	5.83
	γ¹ Leonis	28	33.8	36.1	37.2	47.5	48.5	49.8	51.9	52.2	2.5	3.6	5.8	12 49.82	+ 0.06	7.28	10 12 42.60	5.58
	δ Antliæ	29	22.0	24.6	25.8	37.0	38.2	39.5	40.8	42.0	53.2	54.4	56.8	23 39.48	0.17	7.27	10 23 32.38	4.28
	Weisse 456	30	48.5	51.1	52.2	1.9	3.0	4.1	5.2	6.2	. .	. .	. .	26 59.02	+ 5.09	7.27	10 26 56.84	4.60
	υ Leonis	31	. .	. .	. .	31.8	32.9	34.9	50.4	52.8	53.9	55.2	56.3	30 46.03	− 25.92	7.19	11 30 12.92	4.73
	O. Arg. S. 12288	32	24.3	26.5	27.7	38.6	39.7	41.1	42.5	43.7	54.7	55.9	58.1	30 41.16	+ 0.16	7.17	12 30 34.20	4.34
	Lalande 23654	33	. .	. .	. .	. .	. .	. .	39.0	42.0	43.6	45.1	46.8	33 43.30	− 40.97	7.12	12 32 55.21	4.44
	Lalande 23666	34	. .	. .	. .	6.0	7.3	9.7	28.5	31.5	32.8	34.3	35.8	34 23.24	− 31.67	7.12	12 33 44.45	4.44
	Weisse 685	35	6.9	8.9	10.2	20.1	21.1	22.4	23.5	24.6	34.6	35.5	37.7	41 22.32	+ 0.06	7.11	12 41 15.27	4.57
	Weisse 696	36	. .	. .	. .	58.4	59.5	1.8	17.4	19.8	21.2	22.4	23.6	42 13.01	− 26.78	7.11	12 41 39.12	4.57
	Weisse 786	37	44.3	46.4	47.6	57.1	58.1	59.3	0.4	1.5	11.1	12.3	14.4	46 59.32	+ 0.09	7.10	12 46 52.31	4.59
	Santini 879	38	46.9	48.9	50.0	59.7	0.6	1.9	3.0	4.0	13.7	15.0	16.8	49 1.86	+ 0.09	7.10	12 48 54.85	4.59
	Lalande 24271	39	. .	. .	. .	17.3	18.5	20.1	21.5	22.9	35.2	36.4	39.0	56 26.36	− 6.28	7.09	12 56 12.99	4.12
	14 Canum Venat.	40	23.8	26.6	28.0	40.0	41.0	42.6	44.0	45.3	57.3	58.7	1.0	59 42.57	+ 0.03	7.09	12 59 35.51	4.17
	θ Virginis	41	0.6	2.8	3.7	13.4	14.4	15.5	16.6	17.8	27.6	28.7	30.8	3 15.63	0.10	7.09	13 3 8.64	4.59
	Polaris, S. P	42	. .	. .	. .	40.0	23.0	11.0	0.0	40.0	. .	. .	. .	10 10.80	0.82	7.08	. . . .	70.81
	α Virginis	43	7.8	10.0	11.1	21.0	22.0	23.2	24.4	25.3	35.3	36.3	38.4	18 23.16	+ 0.11	7.07	13 18 16.20	+ 4.62
11	λ Ursæ Min., S. P.	44	. .	. .	. .	. .	26.0	27.0	29.0	. .	. .	. .	. .	56.27.33	− 7.90	3.17	. . . .	− 119.01
	ρ Argus	45	42.7	44.8	45.9	56.7	57.7	59.0	0.3	1.4	12.0	13.2	15.4	1 59.01	+ 0.08	3.16	8 1 55.93	+ 4.58
	Lalande 16237	46	4.4	6.6	7.8	18.4	19.6	20.9	22.2	23.3	33.8	35.0	37.4	11 20.85	0.12	3.15	8 11 17.82	6.72
	Weisse (2) 364	47	52.5	54.9	56.0	6.6	7.7	9.0	10.4	11.5	22.0	23.3	25.6	17 9.05	0.12	3.15	8 17 6.02	6.66
	Lacaille 3316	48	30.9	33.4	34.8	46.0	47.2	48.6	50.0	51.3	2.6	3.8	6.4	20 48.64	+ 0.08	3.15	8 20 45.57	4.07
	Lacaille 3321	49	49.0	50.0	51.5	52.9	54.3	. .	27.0	29.9	31.3	32.9	34.3	22 11.31	− 19.71	− 3.14	8 21 48.46	+ 4.06

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
April 8, 11.4	− 7.20	+ 0.069	− 0.11	+ 0.09

20. Blurred.

r.
March 31. Image west 0.55. Clamp west.
Image west 0.25. Clamp east.
April 8. Observed with clamp east.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	s.	s.	h. m. s.	s.
Apr. 11	Weisse 629	1	40.8	43.2	44.5	55.6	56.8	58.2	59.5	0.8	11.9	13.2	15.5	27 58.18	+ 0.13	− 3.14	8 27 55.17	+ 6.88
Y.	* + 20° 2′	2	. .	. .	. .	54.3	55.3	56.7	57.9	59.0	. .	. .	. .	29 56.64	0.11	3.14	8 29 53.61	6.36
	* + 20° 0′	3	. .	. .	. .	7.3	8.4	9.6	10.8	11.8	. .	. .	. .	30 9.58	0.11	3.14	8 30 6.55	6.36
	* + 20° 0′	4	. .	. .	. .	58.9	59.9	1.1	2.4	3.5	. .	. .	. .	31 1.16	0.11	3.14	8 30 58.13	6.36
	* + 20° 0′	5	. .	. .	. .	13.6	14.7	16.0	17.2	18.4	. .	. .	. .	31 15.98	+ 0.11	3.14	8 31 12.95	6.36
	B. A. C. 2914	6	41.9	43.0	44.6	45.8	48.0	. .	51.9	54.6	55.8	57.2	58.5	32 20.13	− 0.26	3.14	8 32 16.73	6.35
	Weisse (2) 790	7	9.7	11.9	13.0	. .	. .	. .	. .	. .	38.2	39.4	41.6	32 25.63	+ 0.11	3.14	8 32 22.60	6.35
	Weisse (2) 793	8	. .	. .	. .	24.6	25.5	26.8	28.2	29.3	. .	. .	. .	32 26.88	+ 0.11	3.14	8 32 23.85	6.35
	* + 20° 0′	9	. .	. .	. .	. .	. .	. .	19.5	22.0	23.4	24.7	26.0	33 23.12	− 35.71	3.14	8 32 44.27	6.34
	ε Cancri	10	. .	. .	. .	. .	. .	. .	28.5	31.0	32.3	33.5	34.9	33 32.04	35.71	3.14	8 32 53.19	6.34
	B. A. C. 2925	11	. .	. .	. .	. .	. .	. .	57.7	0.3	1.7	3.0	4.3	34 1.40	35.71	3.14	8 33 22.57	6.33
	* + 20° 0′	12	. .	. .	. .	. .	. .	. .	28.6	31.0	32.5	33.8	35.0	34 32.18	35.70	3.14	8 33 53.34	6.33
	Weisse (2) 1016	13	38.6	39.8	41.5	42.7	45.2	. .	50.2	52.9	54.2	55.6	56.9	41 17.76	− 0.27	3.13	8 41 14.36	6.39
	Weisse (2) 1018	14	5.4	7.7	8.9	19.4	20.5	21.8	23.0	24.2	34.6	35.7	37.9	41 21.74	+ 0.11	3.13	8 41 18.72	6.39
	Weisse (2) 1145	15	41.2	43.5	44.7	55.0	56.1	57.5	58.8	59.9	10.3	11.4	13.7	46 57.46	0.11	3.13	8 46 54.44	6.33
	Weisse (2) 1181	16	9.1	11.4	12.7	23.0	24.1	25.5	26.8	27.9	38.3	39.4	41.7	48 25.45	0.11	3.12	8 48 22.44	6.31
	Weisse (2) 1291	17	56.4	58.7	59.9	10.3	11.3	12.6	13.8	15.0	25.4	26.6	28.8	53 12.62	0.11	3.12	8 53 9.61	6.27
	κ Cancri	18	24.0	26.3	27.5	37.3	38.3	39.6	40.7	41.7	51.6	52.8	54.8	0 39.51	+ 0.10	3.11	9 0 36.50	5.79
	δ Leonis	19	6.8	7.9	9.0	10.5	11.6	. .	41.6	44.3	45.6	46.9	48.2	7 27.24	− 17.94	3.01	11 7 6.29	5.19
	Rumker 3497	20	11.2	15.9	17.9	38.0	40.0	42.6	45.0	47.2	7.0	9.2	13.5	9 42.50	+ 0.28	3.01	11 9 39.77	5.60
	Weisse (2) 293	21	30.0	32.6	34.0	46.3	47.6	49.0	50.5	51.9	4.3	5.5	8.0	16 49.06	0.16	3.00	11 16 46.22	5.28
	Weisse (2) 416	22	54.7	57.6	58.9	11.3	12.4	14.0	15.6	17.0	29.2	30.6	33.3	23 14.05	0.16	3.00	11 23 11.21	5.21
	Lalande 21947	23	40.1	42.7	44.0	56.3	57.4	59.0	0.5	1.7	14.0	15.4	17.9	26 59.00	+ 0.16	3.00	11 26 56.16	5.15
	Lalande 22059	24	. .	. .	. .	35.4	36.6	38.0	39.5	40.8	52.4	53.8	56.3	31 44.10	− 5.88	2.99	11 31 35.23	5.08
	61 Ursæ Majoris	25	. .	. .	. .	7.0	8.3	9.8	11.2	12.5	24.4	25.7	28.2	34.15.89	5.93	2.99	11 34 6.97	5.06
	* + 38° 39′	26	. .	. .	. .	55.0	56.1	57.8	59.3	0.7	13.0	14.4	16.9	38 4.15	6.21	2.99	11 37 54.95	5.03
	* + 24° 42′	27	. .	. .	. .	9.2	10.3	12.5	29.3	31.9	33.1	34.6	36.0	40 24.61	− 28.51	2.98	11 39 53.12	4.95
	Lalande 22357	28	59.2	2.0	3.4	15.4	16.7	18.2	19.6	21.0	33.3	34.6	37.2	44 18.24	+ 0.15	2.98	11 44 15.41	4.95
	B. A. C 4016	29	. .	. .	. .	. .	. .	. .	28.8	31.8	33.1	34.6	36.3	47 32.92	− 40.67	2.98	11 46 49.27	4.01
	Lalande 22548	30	15.9	18.4	19.8	31.4	32.6	34.0	35.5	36.7	48.4	49.6	52.0	52 34.03	+ 0.14	2.97	11 52 31.20	4.86
	* − 33° 29′	31	12.3	14.8	16.5	27.8	29.0	30.4	31.7	32.9	44.7	45.9	48.4	58 30.40	0.08	2.97	11 58 27.51	4.08
	η Virginis	32	58.7	0.7	1.8	11.5	12.4	13.6	14.7	15.8	25.5	26.5	28.5	13 13.61	0.09	2.96	12 13 10.74	4.63
17	σ^4 Cancri	33	11.4	13.7	14.9	26.3	27.4	28.9	30.3	31.5	42.8	43.9	46.4	37 28.86	+ 0.06	13.35	8 37 15.57	6.94
	ε Hydræ	34	58.6	59.7	0.9	2.0	3.1	. .	31.3	33.7	34.9	36.3	37.6	40 17.81	− 16.87	13.35	8 39 47.59	5.83
	Lalande 17605	35	14.6	17.4	18.7	31.2	32.4	33.9	35.6	36.7	49.0	50.5	53.0	49 33.91	+ 0.05	13.34	8 49 20.62	7.24
	68 Cancri	36	17.0	19.2	20.4	30.4	31.5	32.7	33.9	35.0	45.2	46.3	48.6	54 32.75	0.07	13.34	8 54 19.48	6.18
	Weisse (2) 1472	37	7.9	10.3	11.3	21.8	22.8	24.0	25.4	26.5	. .	. .	. .	0 18.75	+ 5.42	13.33	9 0 10.84	6.29
	Weisse (2) 1475	38	. .	. .	. .	49.2	50.3	52.5	8.9	11.5	12.8	14.2	15.5	1 4.36	− 27.87	13.33	9 0 23.16	6.28
	Lacaille 3704	39	39.2	41.5	42.9	53.5	54.5	55.8	57.0	58.2	9.0	10.2	12.5	4 55.85	+ 0.14	13.32	9 4 42.67	4.38
	38 Lyncis, (1st *)	40	32.1	34.6	36.2	. .	. .	. .	. .	. .	5.9	7.3	9.8	10 50.98	0.05	13.31	9 10 37.72	6.90
	38 Lyncis, (2d *)	41	. .	. .	. .	48.4	49.7	51.1	52.8	54.0	. .	. .	. .	10 51.20	+ 0.05	13.31	9 10 37.94	6.90
	* − 28° 34′	42	55.4	56.5	57.8	59.2	0.4	. .	32.4	35.0	36.5	37.9	39.4	15 17.05	− 19.31	13.31	9 14 44.43	4.21
	h Ursæ Majoris	43	45.7	50.3	52.9	14.6	16.8	19.3	22.0	24.4	46.2	48.6	53.4	21 19.47	+ 0.04	13.30	9 21 6.21	8.88
	26 Ursæ Majoris	44	35.1	38.5	40.3	56.3	57.8	59.9	1.8	3.5	19.5	21.3	24.5	25 59.86	0.04	13.30	9 25 46.60	7.63
	* + 10° 13′	45	29.7	31.7	33.0	42.9	43.9	45.0	46.1	47.2	57.0	58.1	0.2	31 44.98	+ 0.08	13.29	9 31 31.77	5.64
	ψ Leonis	46	. .	. .	. .	. .	. .	. .	17.6	20.2	21.5	22.8	24.0	37 21.22	− 34.70	13.29	9 36 33.23	5.76
	* + 12° 2′	47	47.3	48.6	50.0	51.2	53.4	. .	54.7	57.3	58.5	59.7	0.9	40 24.16	− 0.27	13.28	9 40 10.61	5.64
	Lacaille 4046	48	13.1	15.4	16.9	28.0	29.2	30.6	31.9	33.2	44.4	45.6	48.2	45 30.59	+ 0.15	13.28	9 45 17.46	4.04
	Weisse (2) 1035	49	55.3	57.4	58.5	8.3	9.3	10.5	11.7	12.7	22.4	23.5	25.6	49 10.47	0.08	13.27	9 48 57.28	5.47
	* − 34° 41′	50	27.4	29.9	31.3	. .	. .	. .	. .	. .	0.1	1.4	3.7	54 45.63	+ 0.17	−13.27	9 54 32.53	+ 3.83

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Apr. 11, 10.1	− 3.06	+ 0.048	+ 0.05	+ 0.09

2. This and following stars are in Præsepe.
40.41. Close double.

r.

April 11. Image 0.00. Clamp east.
April 17. Stars blurred.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	t	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Apr. 17	21 Leonis Minoris .	1	33.6	36.3	37.6	49.6	50.7	52.2	53.7	54.9	6.9	8.0	10.7	59 52.20	+ 0.05	−13.26	9 59 38.99	+ 6.26
Y.	Weisse 74 . . .	2	14.6	16.8	17.7	27.5	28.5	29.7	31.0	32.0	41.7	42.7	44.8	6 29.73	0.08	13.25	10 6 16.56	5.30
	γ¹ Leonis	3	39.7	41.9	43.0	53.3	54.4	55.7	56.9	58.0	8.3	9.5	11.7	12 55.67	0.07	13.25	10 12 42.49	5.69
	Lalande 20169 .	4	46.0	48.7	50.2	2.2	3.4	4.9	6.3	7.7	19.7	21.0	23.7	18 4.89	0.05	13.24	10 17 51.70	6.07
	O. Arg. N. 10874 .	5	44.2	47.7	49.9	. .	. .	. .	. .	. .	33.2	35.2	38.9	22 11.52	0.04	13.24	16 21 58.32	6.77
	36 Ursæ Majoris . .	6	56.6	0.6	2.5	19.9	21.7	23.8	25.9	27.9	45.6	47.5	51.3	22 23.94	0.04	13.24	10 22 10.74	6.77
	37 Ursæ Majoris . .	7	24.6	28.5	30.8	48.7	50.3	52.6	55.2	57.0	15.0	16.9	20.8	26 52.76	0.04	13.23	10 26 39.57	6.72
	O. Arg. S. 10840 .	8	25.0	27.2	28.7	39.9	41.0	42.3	43.6	44.9	56.0	57.3	59.6	37 42.32	+ 0.15	13.22	10 37 29.25	4.05
	* − 29° 57′ . .	†9	. .	. .	. .	. .	. .	. .	4.3	7.1	8.6	10.0	11.6	42 8.32	− 38.69	13.21	10 41 16.42	4.07
	Lalande 21081 .	10	6.0	8.5	9.9	22.0	23.2	24.7	26.1	27.3	39.5	40.7	43.4	52 24.66	+ 0.05	13.20	10 52 11.51	5.64
	Lalande 21258 .	11	47.9	50.8	52.4	5.9	7.2	8.9	10.7	12.0	25.6	27.0	29.9	59 8.94	0.05	13.19	10 58 55.80	5.68
	* − 29° 2′. . .	12	15.2	17.5	18.8	30.0	31.0	32.3	33.7	34.8	46.0	47.2	49.6	2 32.37	0.15	13.19	11 2 19.33	4.12
	B. A. C. 3823 . .	13	34.0	36.5	37.7	48.7	49.9	51.2	52.6	53.8	4.9	6.0	8.4	3 51.25	0.15	13.19	11 3 38.21	4.12
	δ Crateris . . .	14	43.6	45.7	46.9	56.8	57.8	59.0	0.3	1.4	11.4	12.5	14.5	12 59.08	0.11	13.18	11 12 46.01	4.54
	Weisse (2) 312 .	15	36.0	38.4	39.8	51.1	52.3	53.7	55.0	56.3	7.8	9.0	11.4	17 53.71	0.06	13.17	11 17 40.60	5.26
	2 Draconis . . .	16	47.7	53.8	57.2	25.5	28.7	31.7	35.4	38.3	6.6	9.9	15.7	28 31.86	0.04	13.16	11 28 18.74	5.25
	Weisse (2) 608 .	17	0.2	2.4	3.5	13.7	14.7	16.0	17.2	18.4	28.4	29.6	31.7	32 15.98	+ 0.07	13.16	11 32 2.89	4.99
	Weisse (2) 1035 .	18	52.0	53.5	55.2	56.8	59.5	. .	15.0	18.0	19.7	21.3	22.7	53 37.37	− 0.39	13.13	11 53 23.85	4.89
	Weisse (2) 1037 .	19	25.0	27.7	29.1	41.6	42.7	44.0	45.5	46.8	59.2	0.5	3.0	53 44.10	+ 0.05	13.13	11 53 31.02	4.89
	* − 33° 29′ . .	20	22.5	25.0	26.2	37.7	38.9	40.4	41.9	43.0	54.7	55.8	58.4	58 40.41	0.16	13.13	11 58 27.44	4.12
	B. A. C. 4081 . .	21	50.1	52.4	53.5	3.4	4.5	5.7	6.9	7.9	17.9	19.0	21.2	1 5.68	0.08	13.12	12 0 52.64	4.78
	Laland. 22934, (1st *)	22	23.8	26.4	27.6	39.2	40.4	41.9	43.2	44.6	56.0	57.4	59.8	7 41.85	+ 0.05	13.12	12 7 28.78	4.74
	Laland. 22934, (2d *)	23	1.0	2.5	4.3	5.7	8.3	. .	20.2	23.2	24.6	26.1	27.8	7 44.37	− 0.37	13.12	12 7 30.88	4.74
	η Virginis . . .	24	8.6	10.8	11.9	21.4	22.5	23.7	24.9	25.9	35.7	36.8	38.8	13 23.73	+ 0.09	13.11	12 13 10.71	4.64
	O. Arg. S. 12165 .	25	20.4	22.7	23.9	34.7	35.8	37.2	38.7	39.7	40.7	41.8	44.0	20 37.24	0.14	13.10	12 20 24.28	4.34
	* − 37° 37′ . .	26	55.1	58.0	59.6	11.7	12.8	14.4	15.8	17.0	29.5	30.6	33.4	23 14.35	+ 0.18	13.10	12 23 1.43	4.11
	Weisse (2) 581 .	27	8.1	9.2	10.5	11.8	12.9	. .	42.9	45.6	47.0	48.2	49.7	28 28.59	− 18.03	13.09	12 27 57.47	4.62
	Weisse 516, (1st *)	28	32.3	33.4	34.7	35.9	38.3	. .	38.5	40.9	42.2	43.3	44.5	32 8.40	− 0.25	13.09	12 31 55.06	4.59
	Weisse 516, (2d *).	29	53.5	55.9	57.0	6.5	7.5	8.6	9.8	10.9	20.5	21.7	23.7	32 8.69	+ 0.10	13.09	12 31 55.70	4.59
	Weisse 579 . .	30	39.3	40.3	41.4	42.6	43.5	. .	11.8	14.2	15.5	16.8	17.9	35 58.33	− 16.79	13.09	12 35 28.45	4.59
	Weisse 685 . .	31	12.7	14.9	16.0	25.9	26.9	28.2	29.4	30.4	40.5	41.5	43.6	41 28.18	+ 0.08	13.08	12 41 15.18	4.57
	Weisse 696 . .	32	. .	. .	. .	4.5	5.4	7.6	23.3	25.8	27.0	28.3	29.6	42 18.94	− 26.76	13.08	12 41 39.10	4.57
	* + 0° 54′ . .	33	41.8	43.8	44.9	54.6	55.7	56.7	57.8	58.9	8.5	9.5	11.7	45 56.72	+ 0.09	13.08	12 45 43.73	4.58
	Santini 879 . .	34	. .	. .	. .	5.8	6.7	7.8	9.0	10.0	19.6	20.7	22.9	48 12.81	− 4.88	13.07	12 48 54.86	4.58
	Weisse (2) 1019 .	35	. .	. .	. .	6.3	7.6	10.3	29.6	32.6	34.2	35.7	37.3	52 24.20	32.71	13.07	12 51 38.42	4.22
	Lacaille 5363 . .	36	. .	. .	. .	. .	. .	. .	20.3	23.4	25.0	26.5	28.1	55 24.66	− 43.07	13.07	12 54 28.52	4.28
	B. A. C. 4383 . .	37	30.5	33.2	34.7	46.3	47.5	48.9	50.4	51.7	3.6	4.7	7.4	59 48.99	+ 0.17	13.06	12 59 36.00	4.38
	B. A. C. 4407 . .	38	. .	. .	. .	44.9	46.1	47.7	49.2	50.7	2.8	4.2	6.8	3 54.05	− 6.27	13.06	13 3 34.72	4.07
	Polaris, S. P. . .	39	. .	. .	. .	50.0	33.0	21.0	11.0	52.0	. .	. .	. .	10 21.40	− 0.32	13.05	. . . .	69.64
	Lacaille 5503 . .	40	19.4	21.6	23.0	34.9	36.2	37.6	38.9	40.2	52.0	53.5	55.8	14 37.55	+ 0.17	13.04	13 14 24.68	4.47
	ζ Ursæ Majoris . .	41	48.0	50.0	52.5	54.9	59.0	. .	44.9	49.1	51.2	53.4	55.9	18 51.89	− 0.57	13.04	13 18 38.28	3.06
	B. A. C. 4486 . .	42	25.5	29.3	31.3	. .	. .	. .	. .	. .	13.2	15.0	18.8	18 52.18	+ 0.04	13.04	13 18 39.18	3.05
	Weisse (2) 437 .	43	3.8	6.5	7.7	19.9	21.0	22.7	24.1	25.5	37.7	38.9	41.4	23 22.65	0.05	13.03	13 23 9.67	3.91
	ζ Virginis . . .	44	. .	59.6	0.7	10.4	11.6	12.6	13.8	14.9	24.6	25.7	. .	28 12.66	+ 0.09	13.03	13 27 59.72	4.49
22	α Hydræ	45	0.1	2.3	3.3	12.9	14.0	15.3	16.5	17.6	27.2	28.3	30.4	21 15.26	− 0.12	8.36	9 21 6.78	5.15
	ζ¹ Antliæ, (1st *) . .	46	58.5	0.8	2.0	. .	. .	. .	. .	. .	29.8	31.4	33.6	25 16.02	0.13	8.35	9 25 7.54	4.14
	ζ¹ Antliæ, (2d *) . .	47	. .	. .	. .	13.8	15.0	16.3	17.9	19.0	. .	. .	. .	25 16.40	− 0.13	8.35	9 25 7.92	4.14
	* + 12° 39′ . .	48	4.6	5.8	7.1	8.4	10.9	. .	12.5	14.5	15.8	17.2	18.4	31 41.52	+ 0.23	8.35	9 31 33.40	5.80
	* + 12° 39′ . .	49	14.0	15.3	16.5	17.8	20.5	. .	21.7	24.0	25.3	26.7	27.8	31 50.96	+ 0.23	8.35	9 31 42.84	5.80
	Weisse (2) 817 .	50	9.0	11.5	12.6	23.5	24.7	25.9	27.3	28.4	39.3	40.7	43.0	39 25.99	− 0.15	− 8.34	9 39 17.50	+ 6.26

9. Very faint.

r.
April 17. Image west 0.05. Clamp east.
Image west 0.31. Clamp west.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
April 17, 11.2	− 13.18	+ 0.67	− 0.08	+ 0.09

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Apr. 22 Y.	Weisse (2) 837	1	13.1	15.5	16.7	27.6	28.7	30.1	31.4	32.7	43.4	44.6	47.0	40 30.07	− 0.15	− 8.34	9 40 21.58	+ 6.25
	Lacaille 4030	2	. .	. .	. .	. .	. .	. .	43.7	46.4	47.9	49.5	51.0	43 47.70	41.42	8.33	9 42 57.95	3.56
	* − 38° 55′	3	19.7	22.5	23.7	36.0	37.6	39.0	40.5	41.8	54.0	55.6	58.2	50 38.96	0.14	8.32	9 50 30.50	3.69
	Weisse (2) 1172	4	49.0	51.7	53.1	5.6	6.9	8.5	10.0	11.2	23.5	24.9	27.7	56 8.37	0.17	8.32	9 55 59.88	6.50
	Weisse (2) 1282	5	24.8	27.0	28.3	38.4	39.4	40.7	41.9	43.0	53.0	54.0	56.4	0 40.63	0.13	8.31	10 0 32.19	5.72
	Weisse 38	6	. .	. .	. .	23.2	24.2	25.5	26.7	27.7	37.4	38.5	40.7	4 30.49	5.14	8.31	10 4 17.04	5.40
	* − 30° 10′	7	36.9	39.3	40.5	51.5	52.7	54.2	55.6	56.8	7.8	9.1	11.5	8 54.17	0.13	8.30	10 8 45.74	4.14
	Lacaille 4250	8	9.5	11.9	13.0	24.5	25.7	27.2	28.6	29.8	41.2	42.6	45.1	14 27.19	0.13	8.29	10 14 18.77	4.03
	Lacaille 4267	9	40.0	42.2	43.3	53.6	54.8	56.2	57.5	58.6	9.0	10.2	12.5	16 56.17	0.12	8.29	10 16 47.76	4.40
	β Leonis Minoris	10	4.9	7.5	8.9	20.9	22.4	23.9	25.4	26.6	38.6	40.0	42.8	20 23.81	0.17	8.28	10 20 15.36	6.13
	* + 37° 43′	11	. .	. .	. .	2.8	4.2	5.7	7.2	8.4	20.6	21.9	24.6	23 11.90	− 6.45	8.28	10 22 57.19	6.11
	* − 3° 56′	12	35.2	36.4	37.7	38.8	41.4	. .	41.4	43.6	44.9	46.3	47.5	29 11.32	+ 0.23	8.28	10 29 3.27	4.98
	* − 3° 53′	13	59.4	1.5	2.5	12.2	13.3	14.4	15.7	16.6	26.3	27.3	29.5	29 14.43	− 0.12	8.28	10 29 6.03	4.98
	Weisse (2) 711	14	36.4	39.0	40.3	51.9	53.3	54.7	56.2	57.4	8.9	10.2	12.8	35 54.65	0.16	8.27	10 35 46.22	5.85
	O. Arg. S. 10840	15	20.2	22.7	23.8	35.0	36.2	37.6	38.9	40.2	51.2	52.6	55.0	37 37.58	0.13	8.27	10 37 29.18	4.13
	* − 29° 51′	16	7.5	9.7	11.0	22.2	23.4	24.7	26.0	27.3	38.2	39.5	41.9	41 24.67	0.13	8.26	10 41 16.28	4.14
	* − 29° 23′	17	7.7	10.2	11.3	22.5	23.7	25.0	26.4	27.4	38.6	39.8	42.1	47 24.97	0.13	8.25	10 47 16.59	4.16
	* − 29° 29′	18	. .	. .	. .	4.9	6.0	8.5	25.6	28.0	29.5	30.9	32.3	48 20.71	29.51	8.25	10 47 42.95	4.16
	Weisse (2) 1029	19	56.4	58.9	0.5	12.7	14.2	15.6	17.3	18.5	30.8	32.4	34.8	52 15.65	0.17	8.25	10 52 7.23	5.75
	Lalande 21185	20	57.6	0.2	1.5	13.5	14.8	16.3	17.8	19.0	31.0	32.3	34.9	56 16.26	0.16	8.24	10 56 7.86	5.66
	Weisse (2) 1196	21	9.5	12.0	13.4	25.6	26.9	28.4	29.8	31.2	43.4	44.8	47.3	0 28.39	0.17	8.24	11 0 19.98	5.64
	Lacaille 4624, (1st *)	22	. .	. .	. .	43.0	44.0	45.4	46.8	48.6	59.0	0.3	2.5	3 51.12	5.81	8.23	11 3 37.08	4.19
	Lacaille 4624, (2d *)	23	29.4	31.5	32.7	. .	. .	. .	20.2	22.7	24.0	25.7	26.9	4 4.14	17.97	8.23	11 3 37.94	4.19
	O. Arg. S. 11213	24	. .	. .	. .	46.1	47.3	49.7	6.5	9.0	10.4	11.9	13.5	5 1.80	29.33	8.23	11 4 24.24	4.17
	Weisse (2) 118	25	. .	. .	. .	12.9	14.5	16.9	35.8	38.4	40.0	41.8	43.3	8 30.45	32.75	8.23	11 7 49.47	5.53
	δ Crateris	26	38.9	40.9	42.0	51.9	53.0	54.3	55.6	56.6	6.5	7.7	9.8	12 54.29	0.12	8.22	11 12 45.95	4.59
	* − 38° 23′	27	8.7	10.0	11.5	12.9	14.3	. .	49.3	52.0	53.6	55.5	56.7	16 32.45	21.15	8.22	11 16 3.08	3.83
	Weisse (2) 608	28	55.3	57.4	58.7	8.7	9.7	10.9	11.2	12.3	23.5	24.7	26.8	32 10.84	0.13	8.20	11 32 2.51	5.03
	β Leonis	29	13.6	15.7	16.9	26.8	27.9	29.2	30.4	31.5	41.4	42.6	44.8	42 29.16	0.13	8.19	11 42 20.84	4.85
	B. A. C. 4023	30	40.3	42.9	44.3	56.4	57.6	58.9	0.6	1.7	14.0	15.3	17.7	47 59.06	0.14	8.18	11 47 50.74	4.00
	Weisse (2) 1035	31	. .	. .	. .	29.3	30.8	32.2	33.7	34.9	47.0	48.4	50.9	53 38.40	6.44	8.17	11 53 23.79	4.93
	Weisse (2) 1037	32	20.5	23.2	24.5	36.6	37.9	39.4	40.8	42.1	54.2	55.5	58.2	53 39.35	0.17	8.17	11 53 31.01	4.93
	Weisse (2) 1190	33	. .	. .	. .	. .	. .	. .	26.1	28.8	30.4	32.2	33.7	1 30.24	41.87	8.17	12 0 40.20	4.84
	Lacaille 5073	34	19.7	22.3	23.5	35.0	36.1	37.6	38.9	40.3	51.6	53.0	55.6	7 37.60	0.13	8.16	12 7 29.31	4.19
	Weisse 149	35	. .	55.9	57.0	6.7	7.8	8.9	10.2	11.4	20.9	21.9	. .	11 8.97	0.13	8.15	12 11 0.69	4.73
	Weisse (2) 268	36	. .	. .	. .	3.4	5.0	7.6	26.6	29.3	30.9	32.7	34.0	14 21.19	32.91	8.15	12 13 40.13	4.68
	Lalande 23269	37	42.7	45.2	46.6	58.9	0.2	1.6	3.2	4.4	16.7	18.3	20.9	20 1.70	0.17	8.14	12 19 53.39	4.60
	* + 35° 16′	38	7.3	9.8	11.0	23.0	24.2	25.7	27.0	28.2	40.3	41.5	44.0	22 25.64	0.14	8.14	12 22 17.36	4.19
	Weisse 452	39	44.4	46.6	47.5	. .	. .	. .	. .	. .	11.3	12.5	14.6	27 59.48	0.13	8.13	12 27 51.22	4.65
	* + 6° 43′	40	. .	. .	. .	57.6	58.6	59.7	0.8	1.9	. .	. .	. .	27 59.72	0.13	8.13	12 27 51.46	4.65
	Weisse 516, (1st *)	†41	48.4	50.4	51.5	. .	. .	. .	. .	. .	15.2	16.4	18.5	32 3.40	0.12	8.12	12 31 55.15	4.60
	Weisse 516, (2d *)	†42	. .	. .	. .	. .	1.5	2.7	3.8	5.1	6.2	. .	. .	32 3.86	0.12	8.12	12 31 55.61	4.60
	Weisse 579	43	21.7	23.7	24.8	34.3	35.5	36.6	37.8	38.8	48.4	49.7	51.8	35 36.65	0.12	8.12	12 35 28.41	4.59
	* − 4° 43′	44	. .	. .	. .	3.0	4.3	6.3	. .	23.2	24.4	25.8	27.0	36 16.29	25.18	8.12	12 35 42.99	4.59
	Weisse 585	45	. .	. .	. .	9.7	10.8	12.9	. .	29.7	30.9	32.4	33.6	36 22.86	25.18	8.12	12 35 49.56	4.59
	Lalande 23896	46	1.1	3.7	5.0	16.9	18.5	20.0	21.4	22.8	34.8	36.2	38.9	42 19.94	0.17	8.12	12 42 11.65	4.35
	B. A. C. 4311	47	44.6	47.4	48.6	0.8	2.0	3.8	5.3	6.4	18.8	20.0	22.8	44 3.68	0.17	8.11	12 43 55.40	4.30
	Weisse 820	48	48.9	51.0	52.0	1.7	2.8	4.0	5.2	6.2	15.8	16.9	19.0	49 3.95	0.12	8.11	12 48 55.72	4.58
	Lacaille 5363	49	34.2	35.5	36.9	38.4	39.7	. .	15.0	17.8	19.3	21.2	22.6	54 58.06	21.31	8.10	12 54 28.65	4.28
	B. A. C. 4383	50	. .	. .	. .	41.6	42.9	44.4	45.7	47.0	58.8	0.0	2.6	59 50.38	6.22	8.09	12 59 36.07	4.38
	B. A. C. 4407	51	. .	. .	. .	40.5	41.8	43.0	44.6	45.8	57.8	59.4	2.0	3 49.36	− 6.49	− 8.09	12 3 34.78	+ 4.08

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
April 22, 11.4	− 8.21	+ 0.073	− 0.02	− 0.12

41. Northern star.
42. Southern star.
April 22. Observed with clamp west.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868. Apr. 22 Y.	Polaris, S. P.	1	. .	. .	. .	41.0	23.0	11.0	59.0	43.0	. .	. .	. .	10 11.40	+ 5.69	− 8.08	. . . .	+ 68.64
	* + 12° 56′	2	54.5	56.8	57.8	7.7	8.6	9.9	11.1	12.1	22.0	23.2	25.3	14 9.91	− 0.13	8.08	13 14 1.70	4.43
	* + 12° 59′	3	. .	. .	. .	. .	. .	. .	44.4	46.6	47.8	49.3	50.4	14 47.70	33.95	8.08	13 14 5.67	4.43
	ζ Ursæ Majoris	4	. .	. .	. .	42.6	44.5	46.6	48.7	50.5	. .	. .	. .	18 46.58	0.24	8.07	13 18 38.27	3.07
	B. A. C. 4486	5	21.2	24.4	26.7	. .	. .	. .	. .	. .	8.3	10.4	14.2	18 47.53	0.24	8.07	13 18 39.22	3.07
	ζ Virginis	6	53.0	55.0	56.1	5.7	6.7	8.0	9.1	10.0	19.7	20.9	23.0	28 7.93	0.12	8.06	13 27 59.75	4.48
May 1	B. A. C. 4010	7	7.0	9.7	10.9	23.5	24.7	26.2	27.7	28.9	41.4	42.8	45.4	45 26.20	0.17	3.00	11 45 23.03	5.14
	Lalande 22450	8	. .	. .	. .	43.6	44.9	47.6	6.2	8.9	10.5	12.2	13.7	49 0.95	32.39	3.00	11 48 25.26	5.08
	Weisse (2) 1067	9	39.5	42.2	43.5	55.5	56.8	58.3	59.7	0.9	13.0	14.4	17.0	54 58.25	0.16	3.00	11 54 55.09	5.00
	o Virginis	10	18.5	20.4	21.5	31.4	32.4	33.6	34.7	35.8	45.5	46.5	48.9	58 33.56	0.13	3.00	11 58 30.43	4.78
	O. Arg. N. 12397	11	27.0	34.7	39.2	17.5	21.8	26.5	31.2	35.0	13.5	17.7	25.8	3 26.35	0.55	3.01	12 3 22.79	+ 3.88
	B. A. C. 4193	†12	24.0	45.0	55.0	29.5	40.0	52.0	3.0	13.5	48.0	59.0	20.0	19 51.73	1.37	3.01	12 19 47.35	− 1.00
	Weisse (2) 500	13	. .	. .	. .	. .	. .	. .	5.0	7.3	8.6	10.3	11.5	25 8.54	36.37	3.01	12 24 29.16	+ 4.70
	Weisse (2) 581	14	44.5	46.7	47.7	58.9	59.4	0.5	1.7	2.9	13.2	14.4	16.7	28 0.54	0.13	3.01	12 27 57.40	4.68
	Lalande 23653	15	37.2	39.8	41.0	53.0	54.4	55.8	57.3	58.6	10.5	11.9	14.5	32 55.82	0.16	3.02	12 32 52.64	4.40
	* + 0° 54′	16	. .	. .	. .	8.5	9.5	10.8	11.9	13.0	22.6	23.7	25.8	45 15.72	5.09	3.02	12 45 7.61	4.61
	α Canum Venat	17	36.3	38.9	40.4	52.7	54.0	55.7	57.2	58.3	10.7	12.2	14.8	49 55.56	0.17	3.02	12 49 52.37	4.24
	Lacaille 5371	18	33.4	35.8	37.0	48.5	49.7	51.2	52.7	53.8	5.4	6.7	9.3	55 51.23	0.13	3.02	12 55 48.08	4.40
	B. A. C. 4369	19	17.0	19.4	20.7	32.3	33.6	34.9	36.3	37.6	49.0	50.4	52.9	56 34.92	0.13	3.02	12 56 31.77	4.40
	Lacaille 5407	20	48.9	51.3	52.6	4.7	5.7	7.3	8.7	9.9	22.0	23.2	25.9	1 7.29	0.14	3.03	13 1 4.12	4.39
	* − 11° 14′	21	11.9	14.0	15.0	25.0	26.0	27.1	28.4	29.4	39.2	40.4	42.5	4 27.17	0.12	3.03	13 4 24.02	4.56
	Lalande 24579	22	16.7	19.3	20.6	32.7	34.0	35.6	36.9	38.3	50.5	51.9	54.5	7 35.55	0.17	3.03	13 7 32.35	4.08
	Polaris, S. P.	23	. .	. .	. .	. .	20.0	10.0	59.0	41.5	. .	. .	. .	10 32.62	16.99	3.03	. . . .	65.08
	Weisse (2) 274	24	57.0	59.6	0.8	. .	. .	. .	. .	. .	31.3	32.7	35.4	15 16.13	0.17	3.03	13 15 12.93	3.97
	* + 38° 30′	25	. .	. .	. .	13.9	15.2	16.6	18.0	19.5	. .	. .	. .	15 16.64	0.17	3.03	13 15 13.44	3.97
	ζ Ursæ Majoris	26	34.5	38.0	40.0	57.1	58.9	1.0	3.0	4.9	22.0	23.9	27.7	20 1.00	0.24	3.03	13 19 57.73	3.10
	Lamont 4065	27	45.4	47.4	48.5	58.0	59.0	0.3	1.5	2.5	12.0	13.2	15.4	24 0.29	0.12	3.04	13 23 57.13	4.51
	Lamont 4068	28	. .	. .	. .	25.3	26.3	27.5	28.7	29.7	39.3	40.5	42.6	24 32.49	5.10	3.04	13 24 24.35	4.51
	* − 35° 54′	29	57.7	58.8	0.3	1.7	2.9	. .	36.9	39.6	41.2	42.7	44.3	30 20.61	20.47	3.04	13 29 57.10	4.54
	Weisse 583	30	42.8	44.9	46.0	55.5	56.6	57.8	58.9	0.0	9.8	10.9	13.0	34 57.84	0.12	3.04	13 34 54.68	4.53
	* + 37° 15′	31	29.3	31.8	33.2	45.3	46.5	47.9	49.5	50.7	2.8	4.2	6.8	38 48.00	0.16	3.04	13.38 44.80	3.74
	* + 37° 18′	32	. .	. .	. .	19.0	20.3	21.9	23.5	24.7	37.0	38.3	40.9	39 28.20	6.42	3.04	13 39 18.74	3.74
	Weisse (2) 894	33	. .	. .	. .	8.4	9.7	11.9	28.0	30.4	31.6	33.0	34.5	43 23.44	27.92	3.04	13 42 52.48	4.11
	η Bootis	34	12.9	15.0	16.1	26.4	27.5	28.8	30.0	31.0	41.3	42.5	44.7	48 28.75	0.13	3.04	12 48 25.58	4.16
	11 Bootis	35	59.0	1.4	2.6	13.5	14.7	16.0	17.4	18.5	29.4	30.7	33.0	55 16.02	0.15	3.05	13 55 12.82	3.89
	Lalande 25860	36	36.6	39.0	40.4	52.2	53.4	54.8	56.3	57.6	9.3	10.7	13.3	58 54.87	0.16	3.05	13 58 51.66	3.63
	Weisse (2) 21	37	21.0	23.8	25.0	37.3	38.5	39.9	41.5	42.7	54.8	56.0	58.8	2 39.94	0.16	3.05	14 2 36.73	3.49
	B. A. C. 4714	38	16.5	19.0	20.3	31.8	32.9	34.4	35.8	37.0	48.5	49.8	52.4	5 34.40	0.16	3.05	14 5 31.19	+ 3.65
	4 Ursæ Minoris	39	18.9	29.5	34.6	21.8	26.7	32.2	38.5	43.5	29.8	35.6	45.4	9 32.41	0.68	3.05	14 9 28.68	− 4.66
	Weisse 236	40	15.3	17.1	18.3	28.0	28.9	30.2	31.4	32.4	41.9	43.1	45.3	14 30.17	0.12	3.05	14 14 27.00	+ 4.49
	B. A. C. 4778	41	46.6	49.2	50.4	2.8	4.0	5.6	7.0	8.4	20.7	21.8	24.5	18 5.55	0.17	3.06	14 18 2.32	3.33
	B. A. C. 4797	42	34.7	37.2	38.6	50.5	51.8	53.4	54.8	56.0	8.0	9.4	12.0	22 53.31	0.16	3.06	14 22 50.09	+ 3.49
	O. Arg. N. 14695	43	29.7	37.9	42.9	23.8	27.9	33.0	38.2	42.5	23.2	27.9	36.7	29 33.06	0.59	3.06	14 27 29.41	− 4.20
	Weisse (2) 752	44	28.4	31.0	32.4	44.7	46.0	47.6	49.1	50.4	2.7	4.0	6.7	35 47.55	0.17	3.06	14 35 44.32	+ 3.12
	ε Bootis	45	1.4	3.6	4.9	15.8	17.0	18.3	19.7	20.8	31.5	32.7	35.0	39 18.25	0.15	3.06	14 39 15.04	3.61
	α² Libræ	46	24.5	26.6	27.6	37.6	38.6	39.9	41.0	42.0	52.0	53.2	55.4	43 39.85	0.12	− 3.06	14 43 36.67	4.67
8	α Leonis	47	3.8	6.0	7.2	17.0	18.0	19.3	20.6	21.7	31.4	32.6	34.7	1 19.30	0.13	+ 1.84	. . . .	5.78
	γ¹ Leonis	48	24.4	26.7	27.8	38.1	39.1	40.5	41.8	42.8	53.2	54.2	56.5	12 40.46	0.13	1.86	. . . .	5.98
	Lalande 20169	49	30.8	33.4	34.8	46.8	48.0	49.7	51.3	52.5	4.5	5.8	8.4	17 49.64	0.16	1.86	10 17 51.34	6.43
	36 Ursæ Majoris	50	41.5	45.2	46.9	4.5	6.3	8.8	11.0	12.8	30.2	32.3	35.8	22 8.66	− 0.25	+ 1.87	10 22 10.28	+ 7.35

12. Observed with eye and ear.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
May 1, 13.6	− 3.04	− 0.022	− 0.02	− 0.12

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
May 8	37 Ursæ Majoris . .	1	9.4	12.9	15.2	33.3	35.0	37.0	39.5	41.0	59.5	1.4	5.4	26 37.24	− 0.26	+ 1.87	10 26 38.85	+ 7.32
Y.	41 Ursæ Majoris . .	2	35.6	39.2	41.3	59.6	1.6	4.0	6.1	7.9	26.0	28.4	32.3	38 3.82	0.26	1.87	10 38 5.43	7.04
	O. Arg. S. 10907 .	3	. .	44.3	45.5	56.7	57.8	59.2	0.6	1.8	12.9	14.0	. .	42 59.20	0.13	1.88	10 43 0.95	4.37
	O. Arg. S. 10912 .	4	. .	. .	. .	23.7	25.0	27.4	44.4	46.9	48.3	49.9	51.2	43 39.60	29.60	1.88	10 43 11.88	4.38
	Lalande 21185 .	5	47.0	49.7	51.0	3.2	4.5	6.0	7.5	8.7	20.6	22.0	24.6	56 5.89	0.16	1.88	10 56 7.61	5.91
	Weisse (2) 1185 .	6	. .	. .	. .	40.2	41.6	43.0	44.6	45.9	57.9	59.2	2.0	59 49.30	6.44	1.89	10 59 44.75	5.87
	Weisse (2) 1196 .	7	. .	. .	. .	15.3	16.7	18.2	19.7	20.9	33.0	34.4	37.0	0.24.40	6.44	1.89	11 0 19.85	5.85
	B. A. C. 3823 . .	8	18.7	21.3	22.4	33.5	34.6	36.0	37.4	38.5	49.7	50.9	53.3	3 36.03	0.13	1.89	11 3 37.79	4.39
	δ Crateris . . .	9	41.7	42.7	44.0	45.3	46.3	. .	14.7	16.9	18.0	19.6	20.7	13 0.99	17.10	1.89	. . . . .	4.76
	Weisse (2) 293 .	10	. .	. .	. .	41.0	42.5	44.0	45.4	46.8	59.0	0.5	3.0	16 50.28	6.48	1.90	11 16 45.70	5.64
	2 Draconis . . .	11	32.7	38.4	41.3	10.0	12.9	16.2	19.7	22.6	50.8	54.1	0.1	28 16.25	0.41	1.90	11 28 17.74	6.09
	Lalande 22450 .	12	. .	. .	. .	38.5	39.8	42.6	1.0	3.8	5.3	7.0	8.6	48 55.82	− 32.39	1.92	11 48 25.35	5.19
	* − 15° 7′ . . .	†13	39.9	42.0	43.2	53.0	54.1	55.5	56.7	57.7	. .	. .	. .	53 50.26	+ 5.03	+ 1.93	11 53 57.22	4.66
	Polaris	14	6.0	30.0	13.0	49.0	31.5	19.5	9.0	48.0	24.0	11.0	36.0	10 19.73	. .	. .	. . . . .	61.20
10	Polaris	15	6.0	28.0	15.0	48.0	31.0	19.0	11.0	50.0	22.0	12.0	34.0	10 19.64	. .	. .	. . . . .	60.07
11	B. A. C. 4193 . .	†16	15.5	36.0	47.0	21.0	32.0	43.0	54.0	4.5	39.5	49.5	10.5	19 42.95	− 1.08	+ 4.15	12 19 46.02	0.41
	Weisse (2) 556 .	17	40.0	42.2	43.4	54.0	55.2	56.6	57.9	59.1	9.6	10.8	13.2	26 56.55	0.13	4.16	12 27 0.68	4.75
	O. Arg. S. 12288 .	18	13.0	15.3	16.5	27.6	28.8	30.0	31.5	32.6	43.4	44.6	46.9	30 30.02	0.14	4.16	12 30 34.04	4.48
	Weisse 585 . .	19	30.4	32.4	33.6	43.2	44.3	45.4	46.6	47.6	57.3	58.4	0.4	35 45.42	0.12	4.16	12 35 49.46	4.67
	d^2 Virginis . . .	20	38.9	41.0	42.3	51.9	53.0	54.2	55.4	56.4	6.2	7.2	9.4	38 54.17	0.12	4.17	12 38 58.22	4.68
	Rumker 4137 . .	21	51.8	54.0	54.9	4.8	5.9	7.0	8.2	9.3	19.0	20.0	22.3	42 7.02	0.12	4.17	12 42 11.07	4.64
	Weisse 820 . .	22	36.7	38.6	39.8	49.4	50.4	51.5	52.7	53.7	3.4	4.5	6.6	48 51.57	0.12	4.17	12 48 55.62	4.64
	* + 14° 17′ . .	23	. .	. .	. .	18.3	19.4	21.5	36.7	38.9	40.2	41.7	42.9	51 32.45	26.51	4.17	12 51 10.11	4.60
	ε Virginis . . .	24	18.4	20.5	21.6	31.5	32.5	33.7	34.9	35.9	45.7	46.8	49.0	55 33.68	0.12	4.18	12 55 37.74	4.53
	O. Arg. S. 12662 .	25	40.7	42.9	44.0	55.0	56.2	57.4	58.9	0.0	10.9	12.0	14.5	0 57.50	0.14	4.18	13 1 1.54	4.52
	θ Virginis . . .	26	. .	. .	. .	16.6	17.6	19.6	34.5	36.7	37.8	39.1	40.4	3 30.29	− 25.80	4.18	13 3 8.67	4.59
	Polaris, S. P. .	†27	. .	. .	. .	38.0	20.0	10.0	55.0	42.0	. .	. .	. .	10 9.00	+ 4.65	4.18	. . . .	59.82
	g Ursæ Majoris .	28	27.5	31.0	33.0	50.0	51.8	. .	56.2	58.0	15.0	17.3	20.8	20 54.06	− 0.21	4.19	13 19 58.04	3.19
	Lamont 4065 . .	29	38.0	40.2	41.2	50.9	52.0	53.2	54.3	55.4	4.9	6.0	8.0	23 53.10	0.12	4.19	13 23 57.17	4.52
	Lamont 4068 . .	30	. .	. .	. .	17.8	18.9	20.3	21.5	22.4	32.0	33.2	35.4	24 25.19	5.10	4.19	13 24 24.28	4.52
	Lamont 4071 . .	31	. .	. .	. .	54.8	55.8	56.8	57.9	58.8	8.7	10.0	12.0	25 1.85	5.10	4.19	13 25 0.94	4.52
	25 Canum Venat. .	32	. .	. .	. .	47.8	49.3	51.9	10.2	12.9	14.4	16.2	17.7	32 5.05	32.14	4.20	13 31 37.11	3.87
	* + 35° 38′ . .	33	30.2	32.7	34.0	46.0	47.2	48.7	50.0	51.4	3.3	4.7	7.3	36 48.68	0.14	4.20	13 36 52.74	3.85
	Weisse 676 . .	†34	7.2	9.3	10.4	20.2	21.2	22.4	23.6	24.6	34.5	35.4	37.6	40 22.40	0.12	4.20	13 40 26.48	4.53
	Weisse (2) 976 .	35	. .	. .	. .	39.5	40.6	42.3	43.8	45.0	57.4	58.9	2.6	45 48.76	6.49	4.20	13 45 46.47	3.66
	η Bootis	†36	. .	. .	. .	34.0	35.0	37.3	53.0	55.2	56.5	58.0	59.3	48 48.54	27.18	4.21	13 48 25.57	4.15
	* + 23° 30′ . .	37	10.0	12.0	13.2	23.6	24.9	26.2	27.7	28.7	39.2	40.3	42.6	52 26.22	0.12	4.21	13 52 30.31	4.04
	Weisse (2) 1159 .	38	53.0	55.4	56.4	6.9	8.0	9.4	10.5	11.6	22.3	23.4	25.8	53 9.34	0.12	4.21	13 53 13.43	4.03
	Lalande 25860 .	39	29.3	31.5	32.8	44.9	46.0	47.6	49.0	50.3	1.8	3.0	5.9	58 47.46	0.14	4.21	13 58 51.53	3.64
	Weisse (2) 21 . .	40	. .	. .	. .	47.7	48.9	51.6	10.1	12.8	14.4	16.4	17.7	3 4.95	32.31	4.21	14 2 36.85	3.49
	B. A. C. 4714 . .	41	9.2	11.7	13.1	24.6	25.7	27.0	28.5	29.9	40.9	42.4	44.9	5 27.08	0.14	4.22	14 5 31.16	3.65
	O. Arg. S. 13501 .	42	20.0	22.3	23.2	33.2	34.2	35.5	36.7	37.8	47.8	48.9	51.2	8 35.53	0.13	4.22	14 8 39.62	4.58
	Weisse 179 . .	43	13.6	15.9	16.9	26.5	27.6	28.8	29.9	31.0	40.8	41.9	44.0	11 28.81	0.12	4.22	14 11 32.91	4.51
	Weisse 236 . .	44	8.0	10.0	11.0	20.7	21.8	22.9	24.0	25.0	34.8	35.9	37.9	14 22.91	0.12	4.22	14 14 27.01	4.45
	B. A. C. 4778 . .	45	39.2	41.8	43.0	55.2	56.6	58.2	59.7	0.8	13.0	14.5	17.0	17 58.09	0.15	4.22	14 18 2.16	3.32
	B. A. C. 4797 . .	46	. .	29.8	31.0	43.2	44.4	45.9	47.5	48.6	0.8	2.1	. .	22 45.92	0.14	4.23	14 22 50.01	+ 3.32
	O. Arg. N. 14695 .	47	21.7	30.7	34.9	15.6	19.6	25.2	30.7	34.8	15.7	20.4	28.9	29 25.29	0.47	4.23	14 29 29.05	− 4.04
	Weisse (2) 752 .	48	20.7	23.4	24.9	36.9	38.4	40.0	41.8	43.0	55.4	56.7	59.5	35 40.06	0.15	4.23	14 35 44.14	+ 3.11
	Weisse (2) 788 .	49	58.0	0.5	1.7	13.9	15.2	16.7	18.2	19.5	31.6	32.9	35.6	37 16.71	0.14	4.23	14 37 20.80	3.16
	* + 27° 26′. . .	50	22.2	24.8	26.2	38.4	39.6	41.0	42.4	43.5	55.8	57.1	0.0	40 41.00	− 0.14	+ 4.24	14 40 45.10	+ 3.12

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
May 8, 10.5	+ 1.87	+ 0.035	− 0.02	− 0.12
11, 14.2	+ 4.22	+ 0.035	+ 0.01	− 0.12

13. Under clouds.
16. Observed with eye and ear.
27. Unsteady.
34. Followed by a star of 9th mag. to northward.
36. Unsteady.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
May 11	α² Libræ	1	17.1	19.2	20.2	30.2	31.4	32.7	34.0	34.9	44.9	46.2	48.1	43 32.63	— 0.13	+ 4.24	14 43 36.74	+ 4.60
Y.	O. Arg. S. 14046	2	6.7	9.1	10.3	37.3	38.5	41.1	57.8	0.4	1.8	3.0	4.6	47 40.96	17.27	4.24	14 47 27.93	4.82
	Lalande 27336	3	17.4	19.9	21.4	33.5	34.6	36.1	37.6	38.8	51.3	52.7	55.4	53 36.25	0.15	4.24	14 53 40.34	2.99
	Lalande 27340	4	. .	. .	. .	58.6	59.8	2.6	21.2	23.8	25.5	27.3	28.9	54 15.96	32.50	4.24	14 53 47.70	2.99
	O. Arg. S. 14289	5	50.6	52.7	53.8	4.8	5.8	7.1	8.4	9.6	20.4	21.6	23.9	1 7.15	0.14	4.25	15 1 11.26	4.83
	B. A. C. 5001	6	1.0	3.4	4.7	15.7	17.1	18.4	19.7	20.9	31.9	33.3	35.6	5 18.34	0.13	4.25	15 5 22.46	3.32
	β Libræ	7	37.2	39.3	40.3	49.9	51.1	52.4	53.5	54.5	4.1	5.3	7.5	9 52.28	0.12	+ 4.25	15 9 56.41	4.51
	Polaris	†8	5.0	26.5	12.5	48.0	29.0	18.0	10.0	50.0	23.5	10.0	33.0	10 18.67	. . .	. .	. . . . .	59.57
21	δ Crateris	9	43.8	45.9	46.9	56.9	58.0	59.2	0.5	1.5	11.4	12.6	14.8	12 59.23	0.12	—13.44	11 12 45.67	4.91
	B. A. C. 3920	10	13.5	15.6	16.6	26.2	27.3	28.5	29.7	30.7	40.4	41.4	43.6	25 28.50	0.12	13.44	11 25 14.94	5.03
	59 Ursæ Majoris	11	11.5	14.3	15.8	29.4	30.7	32.4	34.0	35.5	48.8	50.4	53.5	31 32.39	0.20	13.44	11 31 18.75	5.74
	Rumker 3727	12	21.7	23.9	24.9	34.9	36.0	37.3	38.4	39.5	49.4	50.6	52.8	38 37.22	0.13	13.45	11 38 23.64	5.24
	A¹ Virginis	13	7.4	9.5	10.5	20.3	21.4	22.6	23.7	24.7	34.6	35.6	37.7	41 22.55	0.13	13.45	11 41 8.97	5.15
	Weisse 758	14	26.0	28.1	29.2	38.9	40.0	41.2	42.4	43.4	53.0	54.2	56.4	44 41.16	0.12	13.45	11 44 27.59	4.92
	B. A. C. 4023	15	45.4	47.9	49.4	1.2	2.6	3.9	5.6	6.8	18.9	20.2	22.9	48 4.07	0.13	13.45	11 47 50.49	4.35
	* — 15° 8′	16	55.2	57.3	58.4	8.4	9.5	10.7	11.9	12.8	22.8	23.9	26.0	54 10.63	0.12	13.45	11 53 57.06	4.78
	B. A. C. 4081	17	. .	. .	. .	18.2	19.4	21.5	36.6	38.9	40.2	41.6	42.9	1 32.41	26.52	13.45	12 0 52.44	5.05
	O. Arg. S. 11982	18	8.8	11.0	12.4	22.9	24.0	25.2	26.4	27.6	38.4	39.6	41.9	5 25.29	0.12	13.46	12 5 11.71	4.60
	B. A. C. 4128	19	48.2	50.8	52.0	3.6	4.9	6.3	7.8	9.0	20.4	21.9	24.3	10 6.29	0.16	13.46	12 9 52.67	5.06
	* + 23° 51′	20	. .	. .	. .	. .	. .	. .	42.9	45.2	46.7	48.0	49.4	12 46.44	36.18	13.46	12 11 56.80	5.00
	* — 37° 37′	21	. .	. .	. .	29.7	30.9	33.6	52.4	54.8	56.5	58.2	59.6	23 46.96	32.42	13.46	12 23 1.08	4.39
	Weisse (2) 556	22	57.5	59.8	0.9	11.6	12.9	14.0	15.4	16.4	26.9	28.3	30.7	27 14.04	0.15	13.46	12 27 0.43	4.85
	Weisse 510	23	28.5	30.5	31.6	41.2	42.3	43.5	44.7	45.7	55.3	56.4	58.5	31 43.47	0.12	13.46	12 31 29.89	4.79
	Lalande 23711	24	51.2	53.7	54.9	6.6	7.9	9.4	10.7	11.9	23.6	24.9	27.5	36 9.30	0.16	13.47	12 35 55.67	4.71
	B. A. C. 4282	25	. .	. .	. .	44.4	46.0	48.8	9.7	12.6	14.4	16.2	17.9	39 3.37	36.26	13.47	12 38 14.02	4.55
	Lalande 23896	26	6.2	8.7	10.0	22.2	23.5	25.0	26.5	27.7	39.7	41.0	43.9	42 24.95	0.17	13.47	12 42 11.31	4.60
	* — 38° 36′	27	27.3	29.8	31.2	43.5	44.9	46.4	47.8	49.2	1.6	3.0	5.6	45 46.39	0.13	13.47	12 45 32.79	4.42
	Lacaille 5311	28	. .	. .	. .	27.7	29.0	31.6	50.8	53.2	54.8	56.6	58.2	46 45.24	32.88	13.47	12 45 58.89	4.42
	Weisse (2) 1019	29	32.8	35.5	36.7	48.8	50.2	51.8	53.3	54.5	6.7	7.9	10.8	51 51.73	0.17	13.47	12 51 38.09	4.46
	Lacaille 5371	30	43.7	46.0	47.2	58.9	0.1	1.4	2.9	4.1	15.9	17.0	19.7	56 1.54	0.12	13.47	12 55 47.95	4.52
	θ Virginis	31	7.3	9.4	10.3	19.9	21.0	22.2	23.3	24.4	34.1	35.2	37.3	3 22.22	0.12	13.48	13 3 8.62	4.64
	Lalande 24579	32	26.7	29.4	30.7	42.9	44.3	45.7	47.2	48.5	0.6	2.0	4.7	7 45.70	0.17	13.48	13 7 32.05	4.24
	Polaris S. P.	33	. .	. .	. .	. .	41.0	31.0	20.0	2.0	. .	. .	. .	10 53.50	16.15	13.48	. . . .	53.82
	Weisse (2) 274	34	7.3	9.8	11.2	23.5	24.7	26.3	27.8	29.2	41.6	42.7	45.5	15 26.33	0.18	13.48	13 15 12.67	4.12
	Weisse 334	35	50.8	52.9	54.0	3.7	4.7	5.9	7.1	8.2	17.8	19.0	21.1	22 5.93	0.13	13.48	13 21 52.32	4.51
	* + 8° 45′	36	. .	. .	. .	21.2	22.2	23.5	24.6	25.7	35.4	36.5	38.8	24 28.49	5.17	13.48	13 24 9.84	4.48
	* — 35° 54′	37	52.2	54.8	56.2	7.9	9.3	10.7	12.4	13.5	25.4	26.8	29.3	30 10.77	0.13	13.49	13 29 57.15	4.58
	Weisse 583	38	53.3	55.2	56.3	6.0	7.0	8.2	9.4	10.6	20.2	21.4	23.4	35 8.27	0.12	13.49	13 34 54.66	4.55
	* + 37° 15′	†39	39.6	42.0	43.3	13.4	14.7	17.3	36.0	38.6	40.1	41.8	43.4	39 17.29	18.99	13.49	13 38 44.81	3.84
	* + 66° 27′	40	. .	. .	. .	55.5	58.5	1.3	4.2	6.9	. .	. .	. .	47 1.28	0.37	13.49	13 46 47.42	1.48
	* + 23° 30′	41	27.8	30.0	31.2	41.6	42.8	44.0	45.1	46.3	56.9	58.0	0.4	52 44.01	0.14	13.49	13 52 30.38	4.06
	* — 37° 39′	42	58.0	0.6	1.9	14.2	15.5	16.9	18.3	19.7	32.0	33.2	36.0	57 16.94	0.13	13.49	13 57 3.32	4.67
	Weisse (2) 1309	43	11.2	13.4	14.6	25.0	26.3	27.6	28.9	30.0	40.6	41.8	43.9	0 27.57	0.15	13.50	14 0 13.92	3.99
	Lalande 26013	44	. .	. .	. .	23.3	24.5	26.0	27.7	28.8	41.1	42.7	45.3	4 32.42	6.52	13.50	14 4 12.40	3.51
	O. Arg. S. 13501	45	37.7	39.9	41.0	51.0	52.0	53.3	54.6	55.6	5.4	6.7	8.9	8 53.28	0.12	13.50	14 8 39.66	4.57
	Lacaille 6027	46	. .	. .	. .	32.1	33.4	34.7	36.1	37.4	48.8	50.0	52.4	31 40.61	6.04	13.51	14 31 21.06	4.77
	Lalande 26923	47	. .	. .	. .	11.9	13.0	15.6	33.3	35.8	37.2	39.0	40.5	40 28.29	30.77	13.51	14 39 44.01	3.33
	Lalande 27023	48	. .	. .	. .	2.7	4.0	5.5	6.9	8.3	20.6	21.8	24.6	43 11.80	6.51	13.51	14 42 51.78	3.06
	O. Arg. S. 14046	49	. .	. .	. .	39.1	40.2	41.6	42.9	44.2	55.0	56.4	58.8	47 47.28	5.81	13.51	14 47 27.96	4.81
	* + 38° 29′	50	. .	. .	. .	4.3	5.7	8.5	27.2	30.0	31.5	33.2	34.7	51 21.89	— 32.85	—13.51	14 50 35.53	+ 2.96

8. Faint, hazy.
39. Faint.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
May 21, 13.7	— 13.49	— 0.021	— 0.03	— 0.12

DATE.	OBJECT.	Number.	SECONDS OF TRATSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	IX.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
May 21	Lalande 27336 .	1	. .	. .	. .	51.2	52.5	54.0	55.7	56.8	9.0	10.3	12.7	54 0.28	− 6.47	−13.52	14 53 40.29	+ 2.97
Y.	Lalande 27340 .	2	. .	. .	. .	16.4	17.7	19.9	39.0	41.4	43.2	44.9	46.4	54 33.61	32.53	13.52	14 53 47.56	2.98
	β Libræ	3	54.8	57.1	58.0	7.9	8.9	10.2	11.4	12.4	22.1	23.3	25.3	10 10.13	0.12	13.52	15 9 56.49	4.45
	μ¹ Bootis	4	26.6	29.3	30.8	42.8	44.3	45.7	47.4	48.6	0.5	2.1	4.7	19 45.71	0.18	13.52	15 19 32.01	2.72
	Polaris	5	20.0	43.0	31.0	7.0	45.5	36.0	25.0	8.0	42.0	26.0	49.0	10 35.68	. .	. .	. . . . .	53.43
30	β Corvi	6	. .	. .	. .	52.4	53.6	55.7	12.3	14.9	16.4	17.7	19.0	28 7.75	28.12	10.67	12 27 28.96	4.80
	Lalande 23563 .	7	. .	. .	. .	17.6	18.9	21.6	40.5	43.7	45.0	46.6	48.2	33 35.26	32.32	10.67	12 32 52.27	4.56
	Lalande 23711 .	8	. .	. .	. .	20.6	21.9	24.3	42.7	45.7	47.3	48.7	50.4	36 37.70	31.44	10.67	12 35 55.59	4.82
	d² Virginis . .	9	. .	. .	. .	6.5	7.5	8.7	9.9	11.0	20.7	21.8	23.8	39 13.74	− 4.95	10.67	12 38 58.12	4.63
	Lalande 23919 .	10	48.8	51.5	52.8	4.7	5.9	7.5	8.9	10.3	22.2	23.6	26.1	43 7.48	+ 0.10	10.67	12 42 56.91	4.72
	Weisse 786 . .	11	47.6	49.7	50.9	0.4	1.5	2.7	3.8	4.8	14.6	15.6	17.7	47 2.66	0.07	10.67	12 46 52.06	4.77
	Santini 879 . .	12	50.3	52.3	53.5	3.0	4.0	5.3	6.5	7.4	17.0	18.1	20.3	49 5.25	0.07	10.67	12 48 54.65	4.76
	* − 35° 28′ . .	13†	40.2	43.0	44.4	56.2	57.3	58.7	0.3	1.4	13.5	14.8	17.1	52 58.81	0.08	10.66	12 52 48.23	4.58
	B. A. C. 4369 .	14†	24.0	26.5	27.8	39.4	40.6	42.0	43.5	44.7	56.3	57.5	0.1	56 42.04	+ 0.07	10.66	12 56 31.45	4.60
	* + 12° 46′ . .	15	. .	. .	. .	15.6	16.8	18.0	19.2	20.3	30.2	31.2	33.3	0 23.08	− 5.03	10.66	13 0 7.39	4.67
	Weisse 1054 . .	16	39.0	41.3	42.4	52.2	53.2	54.4	55.7	56.8	6.6	7.6	9.7	1 54.45	+ 0.07	10.66	13 1 43.86	4.66
	Weisse 44 . . .	17	33.7	40.8	42.0	51.9	52.8	54.1	55.5	56.6	6.3	7.5	9.7	4 54.17	+ 0.07	10.66	13 4 43.58	4.64
	Polaris, S. P. .	18	. .	. .	. .	. .	. .	. .	. .	31.0	22.0	19.0	7.0	33 49.75	−23 9.23	10.65	. . . . .	47.77
	η Bootis	19	20.1	22.4	23.6	33.7	34.7	36.0	37.4	38.5	48.6	49.7	51.9	48 36.05	+ 0.08	10.64	13 48 25.49	+ 4.23
	* + 75° 24′ . .	20	. .	. .	. .	48.9	52.5	57.5	2.5	6.5	. .	. .	. .	54 57.58	0.32	10.64	13 54 47.26	− 0.96
	* + 75° 23′ . .	21	. .	. .	. .	36.4	40.3	45.1	49.8	53.7	. .	. .	. .	55 45.06	+ 0.32	10.64	13 55 34.72	− 0.99
	Lalande 25860 .	22	. .	. .	. .	59.6	0.7	2.1	3.6	4.9	16.7	18.0	20.5	59 8.26	− 5.97	10.63	13 58 51.66	+ 3.74
	Weisse (2) 1314 .	23	6.6	9.0	10.4	22.2	23.4	24.9	26.3	27.6	39.3	40.6	43.1	0 24.85	+ 0.10	10.63	14 0 14.32	3.73
	Lalande 26013 .	24	3.9	6.6	8.0	20.2	21.5	22.9	24.5	25.8	38.0	39.4	42.0	4 22.98	0.10	10.63	14 4 12.45	3.57
	O. Arg. N. 14403 .	25	12.0	15.8	17.9	35.5	37.3	39.5	41.7	43.6	1.2	3.1	6.8	9 39.49	0.15	10.63	14 9 29.01	2.31
	Weisse 257 . .	26	. .	13.3	14.4	24.3	25.2	26.4	27.5	28.6	38.3	39.3	. .	15 26.37	+ 0.07	10.63	14 15 15.81	4.45
	* + 38° 8′ . . .	27	54.5	55.7	57.4	58.9	0.3	. .	35.8	38.8	40.5	42.2	43.7	23 18.78	− 21.30	10.62	14 22 46.86	3.33
	Lalande 26560 .	28	30.7	33.2	34.5	45.7	46.9	48.4	49.7	50.8	2.2	3.4	5.8	26 48.30	+ 0.09	10.62	14 26 37.77	3.59
	Lacaille 6038 .	29	49.9	52.4	53.8	5.6	6.9	8.2	9.8	11.0	23.0	24.1	26.6	33 8.30	+ 0.08	10.62	14 32 57.76	4.80
	Lacaille 6064 .	30	. .	. .	. .	3.7	4.9	7.0	24.7	27.5	28.9	30.5	31.9	36 19.89	− 29.85	10.62	14 35 39.42	4.74
	* + 27° 3′ . .	†31	. .	. .	. .	9.3	10.5	11.8	13.1	14.3	25.3	26.3	28.7	17.40	4.50	10.62	14 1.28	3.58
	* − 23° 45′ . .	32	. .	. .	. .	21.7	22.7	23.9	25.3	26.4	36.8	37.9	40.4	44 29.39	− 5.37	10.61	14 44 13.41	4.68
	* − 27° 34′ . .	33	6.2	8.6	9.8	20.6	21.8	23.1	24.5	25.6	36.6	37.7	40.0	56 23.14	+ 0.07	10.61	14 56 12.60	4.75
	O. Arg. S. 14257 .	34	14.4	16.9	18.1	29.1	30.2	31.5	32.9	34.1	45.0	46.4	48.7	59 31.57	0.07	10.61	14 59 21.03	4.78
	O. Arg. S. 14278 .	35	12.2	14.5	15.7	56.8	58.0	59.4	0.6	1.8	12.8	14.0	16.3	0 59.28	0.07	10.61	15 0 48.74	4.78
	Lacaille 6267 .	36	36.2	38.7	40.1	52.4	53.7	55.2	56.6	58.0	10.3	11.7	14.1	5 55.18	0.08	10.60	15 5 44.66	4.94
	O. Arg. S. 14435 .	37	39.7	41.5	42.7	53.8	54.9	56.3	57.6	58.8	10.0	11.4	13.7	11 56.40	+ 0.07	10.60	15 11 45.87	4.83
	* − 37° 10′ . .	38	. .	. .	. .	53.5	54.7	56.2	57.7	59.1	11.3	12.4	15.1	14 2.50	− 6.17	10.60	15 13 45.73	4.96
	* − 37° 7′ . .	39	. .	. .	. .	12.7	14.1	16.5	35.7	38.8	40.4	41.9	43.5	16 30.45	− 32.54	10.60	15 15 47.31	4.97
	* − 38° 12′ . .	40	38.9	41.6	43.0	55.3	56.5	58.1	59.6	0.9	13.0	14.5	17.1	21 58.05	+ 0.08	10.60	15 21 47.53	5.01
	* − 37° 13′ . .	41	8.8	11.5	12.7	24.9	26.0	27.5	28.9	30.4	42.6	43.8	46.4	25 27.59	0.08	10.60	15 25 17.07	5.00
	α Coronæ Borealis .	42	1.4	3.7	4.9	15.8	16.9	18.3	19.6	20.7	31.6	32.8	35.2	29 18.26	0.09	10.59	15 29 7.76	3.26
	* − 15° 35′ . .	43	19.7	21.8	23.0	33.0	34.0	35.3	36.5	37.6	47.6	48.7	50.8	33 35.27	+ 0.07	10.59	15 33 24.75	4.56
	Lalande 28607 .	44	. .	. .	. .	10.6	11.5	12.7	13.8	14.9	24.8	25.9	28.0	36 17.78	− 4.99	10.59	15 36 2.20	4.44
	O. Arg. S. 14864 .	45	. .	. .	. .	46.8	47.9	50.2	7.3	9.9	11.4	12.8	14.3	40 2.58	− 28.95	10.59	15 39 23.04	4.82
	Weisse 825 . .	46	28.4	30.4	31.5	41.2	42.1	43.4	44.6	45.6	55.4	56.4	58.4	43 43.40	+ 0.07	10.59	15 43 32.88	4.23
	* − 2° 39′ . . .	47	27.8	30.0	31.0	40.8	41.7	42.9	44.2	45.1	54.9	56.0	58.0	46 42.95	0.07	10.59	15 46 32.43	4.22
	φ Serpentis . . .	48	6.1	8.3	9.5	19.5	20.5	21.7	22.9	24.0	33.9	35.0	37.2	51 21.69	0.08	10.58	15 51 11.19	3.65
	O. Arg. S. 15179 .	49	47.4	49.5	50.6	1.0	2.0	3.4	4.6	5.9	16.3	17.4	19.4	57 3.41	0.07	10.58	15 56 52.90	4.71
	δ Ophiuchi . . .	50	23.4	25.4	26.5	36.3	37.3	38.4	39.6	40.6	50.2	51.2	53.4	7 38.39	+ 0.07	−10.58	16 7 27.88	+ 4.22

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
May 30, 14.5	− 10.62	+ 0.027	+ 0.01	+ 0.07

r.

May 21. Image west 0.52. Clamp west.
Image west 0.24. Clamp east.
13–14. Faint.
31. Minute not recorded.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	h. s.	m. s.	s.	h. m. s.	s.
June 1	48 Virginis	1	. .	. .	. .	29.4	30.5	32.4	47.8	50.2	51.4	52.6	53.9	57 43.52	− 25.97	− 9.73	12 57 7.82	+ 4.74
Y.	θ Virginis, (comp.)	2	3.0	5.0	6.2	. .	. .	. .	. .	. .	29.9	31.0	33.2	3 18.05	+ 0.07	9.73	13 3 8.39	4.72
	θ Virginis	3	15.9	17.0	18.2	19.4	20.5	. .	48.5	51.0	52.1	53.4	54.7	3 35.07	− 16.82	9.73	. . . .	4.72
	Lacaille 5457	4	38.0	40.8	42.2	54.0	55.1	56.6	58.0	59.4	11.3	12.5	15.0	7 56.63	+ 0.06	9.73	13 7 46.96	4.62
	Polaris, S. P.	5	. .	. .	. .	. .	59.0	44.0	35.0	. .	. .	. .	. .	10 46.00	− 4.85	9.73	. . . .	46.22
	65 Virginis	6	24.7	26.8	27.9	37.6	38.7	39.8	40.9	42.0	51.7	52.7	54.8	16 39.78	+ 0.07	9.73	13 16 30.12	4.66
	Weisse 334	7	. .	48.9	50.0	59.8	0.7	2.0	3.1	4.2	13.8	14.9	. .	22 1.93	0.08	9.73	13 21 52.28	4.57
	* + 8° 48′	8	4.3	6.5	7.6	17.2	18.2	19.3	20.6	21.7	31.5	32.6	34.7	24 19.47	0.08	9.73	13 24 9.82	4.55
	25 Canum Venat.	9	27.8	30.5	31.8	43.8	45.2	46.6	48.1	49.5	1.4	2.7	5.3	31 46.61	0.12	9.73	13 31 37.00	4.05
	Weisse 583	10	49.0	51.1	52.4	2.0	3.0	4.3	5.5	6.5	16.2	17.3	19.3	35 4.24	0.06	9.73	13 34 54.57	4.60
	Weisse 651	11	31.5	33.7	34.9	44.7	45.6	46.9	48.0	49.2	58.9	0.0	2.2	38 46.87	+ 0.06	9.73	13 38 37.20	4.62
	Weisse 657	12	. .	. .	. .	18.0	19.0	21.2	36.7	39.2	40.5	41.7	42.9	39 32.40	− 26.51	9.73	13 38 56.16	4.62
	ε Bootis	13	23.2	25.5	26.7	37.0	38.1	39.4	40.7	41.8	52.2	53.4	55.6	43 39.42	+ 0.09	9.73	13 43 29.78	4.24
	Lalande 25494	14	. .	. .	. .	15.5	16.5	17.9	19.2	20.4	. .	. .	. .	44 17.90	0.09	9.73	13 44 8.26	4.23
	Piazzi 220	15	4.6	6.9	8.1	. .	. .	. .	. .	. .	33.7	34.8	36.9	44 20.83	0.09	9.73	13 44 11.19	4.23
	Lalande 25625	16	47.6	50.4	51.7	3.8	5.2	6.8	8.4	9.7	21.9	23.1	25.8	49 6.76	+ 0.12	9.72	13 48 57.16	3.80
	* + 23° 56′	17	. .	. .	. .	. .	. .	. .	31.5	34.1	35.6	37.0	38.4	54 35.32	− 36.73	9.72	13 53 48.87	4.10
	Weisse (2) 1309	18	7.2	9.4	10.6	21.1	22.2	23.5	24.8	25.9	36.6	37.8	39.9	0 23.55	+ 0.09	9.72	14 0 13.92	4.05
	O. Arg. S. 13471	19	42.4	44.5	45.7	55.6	56.8	57.9	59.1	0.3	10.4	11.4	13.6	5 57.97	0.06	9.72	14 5 48.31	+ 4.60
	4 Ursæ Minoris	20	. .	. .	. .	25.8	30.7	36.5	42.3	47.4	. .	. .	. .	9 36.54	0.53	9.72	14 9 27.35	− 3.31
	B. A. C. 4752	21	. .	. .	. .	47.3	48.8	50.8	52.6	54.4	. .	. .	. .	12 50.78	0.17	9.72	14 12 41.23	+ 2.71
	B. A. C. 4769	22	. .	24.7	25.8	35.5	36.5	37.8	39.0	40.2	49.8	50.8	. .	17 37.79	+ 0.08	9.72	14 17 28.15	4.28
	B. A. C. 4773	23	. .	. .	. .	0.7	1.6	3.8	19.2	21.6	22.8	24.1	25.5	18 14.91	− 26.09	9.72	14 17 39.10	4.27
	* + 38° 8′	24	. .	. .	. .	53.6	54.9	56.5	58.0	59.4	11.6	12.8	15.5	23 2.79	− 6.20	9.72	14 22 46.87	3.35
	Lalande 26560	25	30.1	32.5	33.8	45.0	46.2	47.6	48.9	50.2	1.4	2.7	4.9	26 47.57	+ 0.10	9.72	14 26 37.95	3.60
	ε Bootis	26	7.7	9.9	11.4	22.2	23.5	24.8	26.0	27.3	38.1	39.3	41.6	39 24.71	+ 0.10	9.72	. . . .	3.60
	α Libræ	†27	44.1	45.3	46.5	47.7	48.8	. .	17.8	20.3	21.6	22.8	24.1	44 3.90	− 17.40	9.72	. . . .	4.55
5	Polaris, S. P.	28	. .	. .	. .	. .	. .	. .	15.5	40.0	32.0	30.0	14.5	33 26.40	−22 39.40	11.93	. . . .	42.75
	Weisse 676	29	23.3	25.3	26.4	36.1	37.1	38.3	39.5	40.6	50.4	51.4	53.4	40 38.35	+ 0.05	11.93	13 40 26.47	4.61
	Weisse 682	30	. .	. .	. .	2.0	3.0	5.2	20.5	23.0	24.2	25.5	26.7	41 16.26	− 26.20	11.93	13 40 38.13	4.61
	* + 37° 20′	31	. .	. .	. .	. .	. .	. .	51.2	54.0	55.7	57.3	58.9	44 55.42	− 42.15	11.94	13 44 1.33	3.92
	Weisse 797	32	25.0	27.2	28.4	38.0	39.1	40.4	41.6	42.7	52.4	53.5	55.6	47 40.35	+ 0.09	11.94	13 47 28.50	4.40
	Weisse 798	33	. .	. .	. .	4.3	5.5	7.4	22.9	25.5	26.6	27.9	29.2	48 18.66	− 26.38	11.94	13 47 40.34	4.40
	* + 11° 57′	34	. .	. .	. .	. .	. .	. .	41.0	43.5	44.7	45.9	47.2	52 4.46	− 34.31	11.94	13 51 18.21	4.36
	11 Bootis	35	7.7	10.0	11.4	22.3	23.4	24.7	26.0	27.2	38.0	39.4	41.7	55 24.71	+ 0.13	11.94	13 55 12.90	4.03
	* − 14° 51′	36	18.6	20.5	21.8	31.7	32.8	34.0	35.3	36.3	46.4	47.4	49.4	59 34.02	+ 0.05	11.94	13 59 22.13	4.62
	* − 14° 53′	37	. .	. .	. .	. .	. .	. .	14.8	17.3	18.4	19.9	21.0	0 18.28	− 34.77	11.94	13 59 31.57	4.62
	O. Arg. S. 13471	38	44.8	47.0	48.0	58.0	59.0	0.3	1.5	2.5	12.6	13.8	15.7	6 0.29	+ 0.04	11.94	14 5 48.39	4.61
	* + 35° 11′	39	6.0	8.6	9.9	21.8	23.0	24.6	26.0	27.3	39.0	40.4	42.9	10 24.50	0.16	11.95	14 10 12.71	3.65
	O. Arg. S. 13626	40	37.9	40.2	41.4	52.2	53.3	54.7	56.0	57.1	8.0	9.2	11.3	19 54.66	+ 0.03	11.95	14 19 42.74	4.72
	O. Arg. S. 13629	41	23.3	24.5	26.0	27.5	29.8	. .	37.4	40.0	41.6	42.9	44.3	20 3.73	− 0.36	11.95	14 19 51.42	4.72
	* − 25° 35′	42	. .	16.6	17.9	28.6	29.7	31.0	32.4	33.6	44.2	45.5	. .	23 31.06	+ 0.03	11.95	14 23 19.14	4.70
	* − 30° 9′	43	33.3	35.5	36.8	47.9	48.9	50.2	51.7	52.9	4.2	5.4	7.7	26 50.41	0.02	11.95	14 26 38.48	4.75
	* − 27° 42′	44	20.3	22.7	24.0	34.8	35.9	37.2	38.6	39.8	50.6	52.9	54.2	29 37.36	0.03	11.95	14 29 25.44	4.72
	* − 32° 13′	45	59.2	1.6	2.9	14.3	15.5	16.8	18.2	19.5	30.9	32.2	34.6	34 16.88	+ 0.02	11.96	14 34 4.94	4.78
	* − 32° 11′	46	. .	. .	. .	45.7	46.8	49.3	7.4	10.2	11.7	13.2	14.6	35 2.36	− 30.71	11.96	14 34 19.69	4.78
	* − 37° 6′	47	35.3	37.7	39.3	51.3	52.6	53.9	55.4	56.7	8.9	10.3	12.8	40 54.02	+ 0.01	11.96	14 40 42.07	4.85
	α Libræ	48	33.1	35.5	36.7	46.5	47.5	48.7	50.0	51.2	1.2	2.2	4.4	43 48.82	0.04	11.96	14 43 36.90	4.55
	Weisse 906	49	48.2	50.3	51.5	1.1	2.1	3.3	4.5	5.6	15.1	16.3	18.2	49 3.29	+ 0.07	11.96	14 48 51.40	4.26
	O. Arg. N. 14971	50	. .	. .	. .	. .	. .	. .	7.4	11.3	13.0	14.9	16.9	52 12.70	− 51.80	11.96	41 51 8.94	2.27
	O. Arg. N. 14975	51	. .	. .	. .	42.3	43.9	45.6	47.6	49.2	. .	. .	. .	51 45.72	+ 0.20	−11.96	14 51 33.96	+ 2.27

27. Under clouds; E. most distinct.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
June 1, 14.1	− 9.72	+ 0.012	+ 0.04	+ 0.07
5, 16.0	− 11.99	− 0.024	+ 0.10	+ 0.07

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868. June 5 Y.	* − 37° 11′ . .	1	32.8	35.4	36.8	48.9	50.2	51.7	53.0	54.4	6.6	7.9	10.5	56 51.65	+ 0.01	−11.96	14 56 39.70	+ 4.90
	Lacaille 6237 . .	2	14.9	17.5	18.7	30.8	32.2	33.6	35.1	36.6	48.5	49.8	52.5	0 33.65	+ 0.01	11.97	15 0 21.69	4.91
	* − 37° 1′ . . .	3	. .	. .	. .	. .	. .	. .	43.8	47.0	48.5	50.0	51.7	2 48.20	− 42.14	11.97	15 1 54.09	4.91
	* − 37° 5′ . . .	4	12.9	15.5	16.8	28.9	30.0	31.6	33.0	34.5	46.6	47.8	50.4	5 31.64	+ 0.01	11.97	15 5 19.68	4.92
	* − 37° 2′ . . .	5	38.9	41.5	42.8	55.0	56.2	57.8	59.3	0.6	12.7	14.0	16.6	7 57.76	0.01	11.97	15 7 45.80	4.93
	* − 37° 7′ . . .	6	5.3	7.8	9.2	11.3	12.5	13.9	15.5	16.7	29.0	30.2	32.7	11 14.01	0.01	11.97	15 11 2.05	4.94
	* − 37° 5′ . . .	7	20.5	23.0	24.4	36.4	37.7	39.1	40.7	41.9	54.0	55.4	57.7	13 39.16	+ 0.01	11.97	15 13 27.20	4.95
	* − 37° 10′ . .	8	. .	. .	. .	12.8	14.0	16.7	35.7	38.9	40.5	41.8	43.6	14 30.50	− 32.63	11.97	15 13 45.90	4.95
	* − 37° 7′ . . .	9	40.7	43.2	44.7	56.6	58.0	59.5	1.0	2.4	14.4	15.6	18.4	15 59.50	+ 0.01	11.97	15 15 47.54	4.95
	* − 37° 1′	10	. .	. .	. .	57.0	58.3	0.8	20.0	23.0	24.6	25.9	27.7	17 14.66	− 32.57	11.97	15 16 30.12	4.95
	Lacaille 6382 . .	11	46.8	49.3	50.8	2.9	4.0	5.5	6.9	8.3	20.5	21.8	24.3	20 5.55	+ 0.01	11.97	15 19 53.59	4.97
	* − 37° 14′ . .	12	1.4	3.8	5.3	17.5	18.7	20.2	21.7	23.0	. .	. .	. .	22 13.95	6.26	11.97	15 22 8.24	4.97
	* − 37° 13′ . .	13	10.3	12.9	14.3	26.4	27.6	29.1	30.5	31.8	44.0	45.4	47.9	25 29.11	0.01	11.98	15 25 17.14	4.98
	* − 32° 13′ . .	14	25.0	27.6	28.8	40.3	41.6	42.9	44.3	45.5	. .	. .	. .	28 37.00	+ 5.89	11.98	15 28 30.91	4.89
	* − 32° 10′ . .	15	. .	. .	. .	59.0	0.4	2.8	20.8	23.7	25.2	26.6	28.0	29 15.81	− 30.71	11.98	15 28 33.12	4.89
	* − 15° 35′ . .	16	. .	23.3	24.4	34.5	35.4	36.7	38.0	39.0	48.9	50.0	. .	33 36.69	+ 0.04	11.98	15 33 24.75	4.54
	Lalande 28799 .	17	. .	. .	. .	38.0	39.4	40.8	42.2	43.7	. .	. .	. .	41 40.82	+ 0.17	11.98	15 41 29.01	2.61
	Lalande 28801 .	18	. .	. .	. .	57.3	58.7	1.0	20.0	23.0	24.7	26.4	28.0	42 14.89	− 32.32	11.98	15 41 30.59	2.61
	ε Serpentis . . .	19	13.0	15.0	16.4	25.9	26.9	28.0	29.2	30.4	39.9	41.0	43.2	44 28.08	+ 0.08	11.98	15 44 16.18	4.00
	φ Serpentis . . .	20	7.6	9.7	10.8	20.8	21.8	23.0	24.2	25.4	35.4	36.4	38.6	51 23.06	0.10	11.99	15 51 11.17	3.63
	Weisse (2) 1367 .	21	3.9	6.6	8.0	19.9	21.4	22.9	24.3	25.6	37.8	39.3	41.8	54 22.86	0.17	11.99	15 54 11.04	2.48
	θ Lupi	22	51.8	54.6	55.8	7.8	9.0	10.5	11.9	13.1	25.2	26.6	28.9	58 10.47	0.01	11.99	15 57 58.49	5.07
	* − 21° 16′ . .	†23	40.9	43.0	44.5	54.7	55.7	57.0	58.3	59.6	9.7	10.9	13.3	3 57.05	0.04	11.99	16 3 45.10	4.69
	B. A. C. 5416 . .	24	43.0	45.4	46.7	57.7	58.9	0.3	1.6	2.9	14.0	15.2	17.6	8 0.30	0.02	11.99	16 7 48.33	4.93
	* + 37° 10′ . .	25	43.4	46.0	47.4	59.3	0.5	2.0	3.6	4.7	17.0	18.3	20.8	12 2.09	0.17	11.99	16 11 50.27	2.35
	* + 37° 13′ . .	26	42.9	45.7	47.0	58.9	0.3	1.9	3.4	4.7	16.9	18.4	20.7	13 1.89	0.17	11.99	16 12 50.07	2.34
	Weisse (2) 457 .	27	40.9	43.8	45.4	58.0	59.3	0.8	2.5	3.8	16.5	17.9	20.5	16 0.85	0.18	12.00	16 15 49.03	2.06
	Weisse (2) 573 (1st*)	28	22.2	25.0	26.4	. .	. .	. .	. .	. .	56.0	57.5	0.2	19 41.22	0.17	12.00	16 19 29.39	2.29
	Weisse (2) 573 (2d*) .	29	. .	. .	. .	38.6	39.8	41.4	42.8	44.3	. .	. .	. .	19 41.38	0.17	12.00	16 19 29.55	2.29
	O. Arg. S. 15725 .	30	50.7	52.9	54.2	4.8	5.7	7.2	8.5	9.7	20.2	21.4	23.5	26 7.16	0.03	12.00	16 25 55.19	4.80
	ζ Ophiuchi . . .	31	52.3	54.5	55.5	5.4	6.4	7.7	8.8	10.0	19.7	20.8	22.8	30 7.63	0.05	12.00	16 29 55.68	4.37
	O. Arg. S. 15811 .	32	2.4	4.7	5.9	16.6	17.7	19.0	20.5	21.5	32.4	33.4	35.8	32 19.08	0.03	12.00	16 32 7.11	4.87
	* − 26° 14′ . .	33	55.6	57.9	59.0	9.9	10.9	12.2	13.5	14.7	25.5	26.8	29.0	35 12.27	0.03	12.00	16 35 0.30	4.88
	O. Arg. S. 15923 .	34	22.0	24.5	25.6	36.4	37.5	38.9	40.2	41.5	52.2	53.4	55.7	38 38.90	0.03	12.01	16 38 26.92	4.92
	* − 30° 3′ . . .	†35	4.9	7.4	8.6	19.8	20.9	22.3	23.6	24.9	36.0	37.2	39.6	42 22.29	+ 0.02	12.01	16 42 10.30	5.01
	O. Arg. S. 16046 .	36	. .	. .	. .	11.4	12.6	15.0	32.8	35.5	37.0	38.4	39.9	45 27.82	− 30.08	12.01	16 44 45.73	5.02
	O. Arg. S. 16060 .	37	. .	. .	. .	. .	. .	. .	8.6	11.4	12.7	14.1	15.7	46 12.50	− 38.93	12.01	16 45 21.56	5.02
	κ Ophiuchi . . .	38	24.0	26.2	27.4	37.0	38.0	39.3	40.5	41.6	51.3	52.4	54.4	51 39.28	+ 0.09	12.01	16 51 27.36	3.64
12	Polaris S. P. . .	39	5.0	56.0	47.0	37.0	17.0	. .	. .	. .	. .	. .	. .	47 56.40	22 56.16	12.30	. . . .	37.44
	ε Virginis . . .	40	34.5	36.6	37.8	47.6	48.6	49.8	51.0	52.1	1.9	3.1	5.2	55 49.84	0.07	12.31	12 55 37.60	4.83
	θ Virginis . . .	41	5.6	7.8	8.8	18.6	19.5	20.8	21.9	23.0	32.6	33.7	35.8	3 20.74	0.06	12.32	13 3 8.48	4.81
	* + 33° 11′ . .	42	4.8	7.3	8.6	20.0	21.2	22.7	24.2	25.4	36.9	38.2	40.7	11 22.73	0.11	12.33	13 11 10.51	4.53
	O. Arg. S. 12811 .	43	51.6	53.8	55.0	5.3	6.4	7.7	8.9	10.2	20.5	21.6	23.7	14 7.70	0.04	12.33	13 13 55.41	4.78
	B. A. C. 4479 . .	44	49.0	51.8	53.1	5.3	6.5	8.2	9.7	10.9	23.1	24.5	27.0	18 8.10	0.12	12.33	13 17 55.89	4.37
	Weisse 324 . .	45	16.0	18.2	19.4	29.0	30.0	31.3	32.4	33.5	43.0	44.0	46.2	21 31.18	0.06	12.33	13 21 18.91	4.70
	Lalande 24977 .	46	48.0	50.4	51.6	2.3	3.3	4.7	5.9	7.0	17.8	18.8	21.2	24 4.64	0.04	12.34	13 23 52.34	4.76
	Lacaille 5625 . .	47	59.0	1.4	3.0	15.6	16.8	18.4	19.7	21.2	33.8	35.1	37.9	32 18.35	0.03	12.34	13 32 6.04	4.76
	* − 35° 54′ . .	48	30.7	33.2	34.5	46.5	47.6	49.2	50.7	51.9	3.9	5.1	7.8	36 49.19	0.03	12.35	13 36 36.87	4.77
	B. A. C. 4586 . .	49	11.3	13.9	15.2	27.0	28.2	29.7	31.0	32.4	44.3	45.7	48.1	39 29.71	0.03	12.35	13 39 17.39	4.77
	* − 35° 57′ . .	50	54.8	57.4	58.8	10.7	11.9	13.4	14.8	16.2	28.1	29.5	32.0	42 13.42	+ 0.03	−12.35	13 42 1.10	+ 4.78

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
June 5, 16.0	− 11.99	− 0.024	+ 0.10	+ 0.07

23. Faint.
35. Faint, through clouds.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
June 12	B. A. C. 4632	1	53.0	55.9	57.2	8.9	10.2	11.5	12.9	14.4	26.2	27.3	29.8	46 11.57	+ 0.12	−12.35	13 45 59.34	+ 4.04
Y.	Lalande 25625	2	50.4	53.1	54.4	6.5	7.7	9.3	10.7	12.0	24.4	25.8	28.2	49 9.32	+ 0.12	12.36	13 48 57.08	3.93
	* − 38° 48′	3	. .	. .	. .	19.8	21.0	23.7	43.1	46.3	47.8	49.6	51.1	54 37.80	− 33.34	12.35	13 53 52.10	4.80
	* − 36° 57′	†4	45.7	48.4	50.0	1.9	3.2	4.7	6.0	7.6	19.8	20.8	23.5	8 4.69	+ 0.03	12.37	14 7 52.35	4.82
	Weisse 179	5	29.9	32.0	33.1	42.9	43.8	45.1	46.3	47.4	57.1	58.2	0.3	11 45.10	+ 0.05	12.37	14 11 32.78	4.56
	* − 35° 23′	†6	1.8	4.3	5.6	34.5	35.9	38.2	57.3	0.3	1.7	3.0	4.7	15 38.85	− 18.73	12.38	14 15 7.74	4.82
	* − 26° 17′	7	39.9	42.2	43.5	54.3	55.4	56.7	57.9	59.2	9.9	11.1	14.3	20 56.76	+ 0.03	12.38	14 20 44.41	4.74
	* + 37° 42′	8	45.7	48.4	49.8	1.9	3.1	4.7	6.3	7.5	19.7	21.1	23.9	29 4.74	0.12	12.39	14 28 52.47	3.39
	Lacaille 6051	9	54.8	57.0	58.4	9.2	10.4	11.8	13.1	14.4	25.3	26.5	29.0	34 11.81	+ 0.03	12.40	14 33 59.44	4.77
	Weisse (2) 788	10	. .	. .	. .	30.3	31.5	32.9	34.4	35.8	47.9	49.4	51.8	37 39.25	− 6.14	12.40	14 37 20.71	3.30
	Lalande 26923	11	. .	40.7	42.0	53.6	54.7	56.2	57.6	58.9	10.4	11.8	. .	39 56.21	+ 0.11	12.40	14 39 43.92	3.58
	Lalande 27023	12	44.9	47.7	49.0	1.3	2.6	4.2	5.6	6.9	19.2	20.4	23.1	43 4.08	0.12	12.40	14 42 51.80	3.19
	B. A. C. 4906	13	11.9	14.5	15.9	28.0	29.2	30.9	32.4	33.8	45.9	47.3	49.8	45 30.87	0.12	12.40	14 45 18.59	3.18
	Weisse 906	14	48.5	50.7	51.8	1.3	2.4	3.6	4.7	5.8	15.5	16.6	18.7	49 3.60	+ 0.06	12.41	14 48 51.25	4.27
	* + 49° 40′	15	. .	. .	. .	. .	. .	. .	4.2	7.8	11.3	13.4	15.6	52 10.46	− 51.84	12.41	14 51 6.21	2.36
	O. Arg. N. 14975	16	. .	. .	. .	. .	. .	. .	32.9	36.5	38.8	40.4	42.3	52 38.18	− 51.84	12.41	14 51 33.93	+ 2.35
	B. A. C. 4982	17	. .	. .	. .	23.6	31.3	42.6	52.0	0.8	. .	. .	. .	59 42.06	+ 0.99	12.42	14 59 30.63	− 13.61
	B. A. C. 5001	18	17.5	20.0	21.3	32.4	33.5	34.9	36.2	37.5	48.5	49.7	52.1	5 34.87	0.10	12.42	15 5 22.55	+ 3.34
	β Libræ	19	53.6	55.8	56.8	6.6	7.6	8.8	10.0	11.1	20.9	21.9	23.9	10 8.82	0.05	12.43	15 9 56.44	4.41
	* − 37° 6′	20	20.7	23.4	24.9	36.9	38.1	39.6	41.0	42.4	54.5	55.8	58.4	13 39.61	+ 0.03	12.43	15 13 27.21	4.95
	* − 37° 10′	21	. .	. .	. .	13.1	14.6	17.0	36.3	39.3	40.8	42.3	43.9	14 30.91	− 32.61	12.43	15 13 45.87	4.95
	* − 37° 6′	22	41.1	43.6	45.0	57.2	58.4	59.9	1.3	2.7	14.7	16.0	18.6	15 59.86	+ 0.03	12.43	15 15 47.46	4.96
	Lacaille 6382	23	46.9	49.8	51.0	3.1	4.4	5.8	7.4	8.7	21.0	22.3	24.7	20 5.92	+ 0.03	12.43	15 19 53.52	4.96
	* − 37° 14′	24	. .	. .	. .	35.5	36.7	39.3	58.5	1.6	3.7	4.8	6.3	22 53.22	− 32.64	12.43	15 22 8.15	4.97
	* − 37° 13′	25	10.7	13.2	14.7	26.8	28.1	29.4	30.9	32.3	44.4	45.9	48.5	25 29.54	+ 0.03	12.44	15 25 17.13	4.98
	Lacaille 6495	26	13.9	16.4	17.6	28.7	29.8	31.3	32.6	33.8	45.0	46.2	48.5	35 31.25	0.03	12.44	15 35 18.84	4.84
	O. Arg. S. 14864	27	18.6	21.0	22.3	32.9	34.0	35.4	36.6	37.8	48.8	49.9	52.2	39 35.41	+ 0.03	12.45	15 39 22.99	4.77
	Lalande 28834	28	. .	. .	. .	42.8	43.9	45.5	47.0	48.4	0.5	2.0	4.6	42 51.84	− 6.15	12.45	15 42 33.24	2.58
	Lalande 28917	29	38.4	41.1	42.5	54.8	56.0	57.7	59.2	0.4	12.8	14.1	16.7	45 57.61	+ 0.12	12.45	15 45 45.28	2.50
	Weisse (2) 1273	30	1.4	4.0	5.5	17.7	18.8	20.5	21.9	23.2	35.3	36.6	39.1	51 20.36	0.12	12.46	15 51 8.02	2.53
	Weisse (2) 1336	31	25.1	27.8	29.2	41.4	42.6	44.0	45.6	46.9	59.2	0.5	3.1	53 44.13	0.12	12.46	15 53 31.79	2.48
	O. Arg. S. 15179	32	49.2	51.7	52.8	3.0	4.2	5.5	6.7	7.8	18.0	19.3	21.3	57 5.41	+ 0.04	12.46	15 56 52.99	4.65
	* − 38° 47′	33	. .	. .	. .	. .	. .	. .	. .	. .	14.4	15.8	18.5	0 16.23	− 16.99	12.46	15 59 46.78	5.11
	Lacaille 6695	34	. .	. .	. .	. .	. .	. .	38.4	41.4	43.0	44.5	46.1	0 42.68	− 43.14	12.46	15 59 47.08	5.11
	B. A. C. 5411	35	54.1	56.6	58.0	10.0	11.3	12.8	14.3	15.7	27.7	29.0	31.6	7 12.83	+ 0.12	12.47	16 7 0.48	2.42
	Lalande 29654	36	26.2	28.9	30.3	42.5	43.7	45.3	46.8	48.2	0.5	1.9	4.5	8 45.35	+ 0.12	12.47	16 8 33.00	2.29
	* + 37° 10′	37	. .	. .	. .	0.0	1.2	2.8	4.2	5.5	17.7	18.9	21.5	12 8.98	− 6.13	12.47	16 11 50.38	2.35
	Weisse (2) 572	38	22.9	25.4	26.8	. .	. .	. .	. .	. .	56.9	58.2	0.7	19 41.82	+ 0.12	12.48	16 19 29.46	2.28
	Weisse (2) 573	39	. .	. .	. .	39.2	40.5	42.0	43.5	44.8	. .	. .	. .	19 42.00	0.12	12.48	16 19 29.64	2.28
	O. Arg. S. 15725	40	51.4	53.6	54.8	5.4	6.5	7.7	8.9	10.2	20.9	21.9	24.2	26 7.77	0.04	12.48	16 25 55.33	4.75
	ζ Ophiuchi	41	52.9	55.0	56.2	6.0	6.9	8.2	9.4	10.4	20.2	21.2	23.5	30 8.17	0.05	12.48	16 29 55.73	4.32
	Lacaille 6933	42	35.9	38.6	40.0	52.0	53.0	54.7	56.2	57.5	9.5	10.7	13.3	33 54.67	0.03	12.49	16 33 42.21	5.14
	O. Arg. S. 15923	43	22.5	24.9	26.2	37.0	38.1	39.5	40.8	42.1	52.9	54.0	56.3	38 39.48	0.03	12.49	16 38 27.02	4.86
	Lalande 30506	44	0.8	3.0	4.2	14.3	15.4	16.7	17.9	19.0	29.4	30.5	32.7	40 16.72	0.04	12.50	16 40 4.26	4.63
	* − 30° 8′	45	22.4	24.9	26.0	37.2	38.2	39.5	40.9	42.2	53.4	54.5	57.0	43 39.65	0.03	12.50	16 43 27.18	4.95
	O. Arg. S. 16046	46	40.9	43.4	44.6	55.8	56.8	58.3	59.7	0.0	12.2	13.3	15.7	44 58.33	+ 0.03	12.50	16 44 45.86	4.96
	O. Arg. S. 16060	47	. .	. .	. .	31.5	32.8	34.2	35.7	36.8	48.0	49.2	51.5	45 39.96	− 5.72	12.50	16 45 21.74	4.96
	* − 26° 31′	48	15.5	17.9	19.1	29.8	31.0	32.4	33.6	34.7	45.6	46.7	49.0	49 32.30	+ 0.03	12.50	16 49 19.83	4.85
	* − 37° 8′	49	57.1	59.8	1.0	13.2	14.4	15.8	17.4	18.7	30.7	32.2	34.7	53 15.91	0.03	12.51	16 53 3.43	5.20
	Lacaille 7123	50	21.7	24.3	25.6	37.7	38.8	40.5	41.9	43.1	. .	. .	. .	57 34.20	+ 6.27	−12.51	16 57 27.96	+ 5.21

4. Very faint.
6. Faint.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
June 12, 15.5	− 12.44	− 0.049	+ 0.06	+ 0.06

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
June 12 Y.	* − 36° 57′	1	. .	. .	. .	58.5	59.7	2.4	21.3	24.5	25.9	27.6	29.0	58 16.11	− 32.52	−12.51	16 57 31.08	+ 5.21
	ε Ursæ Minoris	2	. .	. .	. .	22.8	30.3	45.0	39.3	56.5	5.7	15.7	24.5	3 7.48	− 3 12.04	12.52	16 59 42.92	− 20.01
	α^1 Herculis	3	36.8	39.0	40.1	50.0	51.1	52.4	53.6	54.7	4.5	5.6	7.8	8 52.33	+ 0.08	12.52	17 8 39.89	+ 3.35
	O. Arg. S. 16607	4	47.1	49.3	50.4	1.3	2.5	3.8	5.0	6.2	17.0	18.1	20.6	12 3.75	0.03	12.52	17 11 51.26	4.55
	O. Arg. S. 16676	5	27.9	30.2	31.4	42.4	43.4	44.6	46.0	47.2	58.0	59.2	1.6	14 44.72	0.03	12.53	17 14 32.22	4.92
	O. Arg. S. 16749	6	28.6	30.9	32.0	43.1	44.2	45.7	47.2	48.4	59.4	0.5	2.6	17 45.69	0.03	12.53	17 17 33.19	4.96
	* − 29° 37′	7	36.2	38.7	39.9	51.0	52.0	53.4	54.8	56.2	7.1	8.4	10.6	25 53.48	0.03	12.53	17 25 40.98	5.02
	* − 35° 17′	8	37.9	40.6	42.0	53.7	54.8	56.4	57.8	59.2	11.0	12.2	14.8	28 56.40	0.03	12.53	17 28 43.90	5.23
	O. Arg. S. 17063	9	59.8	2.0	3.0	13.2	14.2	15.5	16.7	17.9	28.0	29.2	31.3	33 15.53	+ 0.04	12.54	17 33 3.03	4.62
	O. Arg. S. 17068	10	. .	. .	. .	52.0	53.2	55.3	11.5	14.1	15.3	16.6	18.0	34 7.00	− 27.33	12.54	17 33 27.13	4.63
	* − 7° 49′	11	24.0	26.1	27.4	36.8	37.9	39.0	40.3	41.4	51.1	52.1	54.2	37 39.12	+ 0.05	12.54	17 37 26.63	4.26
	Taylor 8219	12	42.8	45.0	46.3	56.4	57.4	58.7	59.9	1.0	11.1	12.3	14.5	39 58.67	0.04	12.54	17 39 46.17	4.64
	* − 34° 44′	13	1.8	4.2	5.6	17.4	18.5	19.9	21.4	22.6	. .	. .	. .	43 13.92	+ 6.08	12.55	17 43 7.45	5.25
	B. A. C. 6029	14	. .	. .	. .	37.9	39.3	40.7	42.2	43.3	55.1	56.3	58.8	43 46.70	− 6.02	12.55	17 43 28.13	5.25
15	ζ Virginis	15	57.0	59.0	0.1	9.7	10.8	12.0	13.2	14.2	23.8	24.9	27.0	28 11.97	0.09	12.28	13 27 59.60	4.66
	Polaris, S. P.	16	. .	. .	. .	. .	. .	. .	. .	10.5	2.5	54.0	45.0	34 28.00	23 32.93	12.28	. . . .	34.91
	Lacaille 5621	17	14.6	16.9	17.9	29.2	30.3	31.6	33.0	34.0	45.0	46.3	48.8	31 31.60	0.11	12.28	13 31 19.21	4.80
	B. A. C. 4586	18	11.2	13.8	14.9	26.8	28.0	29.7	31.2	32.4	44.3	45.7	48.2	39 29.65	0.12	12.28	13 39 17.25	4.80
	B. A. C. 4613	19	57.6	59.9	1.0	11.2	12.3	13.5	14.8	15.9	26.2	27.3	29.6	43 13.57	0.10	12.28	13 43 1.19	4.75
	B. A. C. 4632	20	. .	. .	. .	26.0	27.4	29.9	48.0	50.5	52.1	53.8	55.0	46 42.84	31.36	12.28	13 45 59.20	4.08
	* − 22° 23′	21	36.6	38.8	40.0	50.3	51.5	52.8	54.1	55.1	5.5	6.8	9.1	49 52.78	0.10	12.28	13 48 40.40	4.75
	* − 36° 51′	22	12.3	14.9	16.2	28.1	29.5	31.0	32.6	33.9	45.9	47.3	49.7	54 31.04	0.12	12.28	13 54 18.64	4.82
	* − 36° 51′	†23	. .	. .	. .	. .	. .	. .	41.0	42.9	44.1	45.4	46.9	55 44.06	41.31	12.28	13 54 50.47	4.82
	* − 26° 5′	24	59.8	2.2	3.4	13.9	15.2	16.5	17.8	19.0	29.7	31.0	33.3	1 16.53	0.11	12.28	14 1 4.14	4.76
	* − 26° 7′	†25	. .	41.1	42.0	53.1	54.2	. .	. .	. .	8.6	10.0	12.2	2 57.31	1.95	12.28	14 2 43.08	4.73
	Lacaille 5877	26	46.8	49.3	50.6	2.1	3.4	4.9	6.2	7.6	19.3	20.6	22.9	9 4.88	0.12	12.27	14 8 52.49	4.83
	Weisse (2) 245	27	. .	. .	. .	12.3	13.7	15.3	16.9	18.4	. .	. .	. .	12 15.32	0.11	12.27	14 12 2.94	3.52
	* − 35° 23′	28	1.9	4.3	5.5	17.3	18.5	19.9	21.5	22.8	34.7	35.9	38.7	15 20.09	0.12	12.27	14 15 7.70	4.84
	* − 26° 9′	29	7.7	10.0	11.3	21.9	23.1	24.4	25.7	26.9	37.5	38.8	41.2	18 24.41	0.11	12.27	14 18 12.03	4.76
	Lacaille 5962	30	52.5	55.3	56.5	9.0	10.5	12.1	13.6	14.9	27.3	28.8	31.7	23 12.02	0.13	12.27	14 22 59.62	4.89
	Lacaille 5991	31	39.7	42.1	43.4	55.0	56.3	57.9	59.3	0.5	12.4	13.6	16.2	26 57.85	0.12	12.27	14 26 45.46	4.85
	Lacaille 6015	32	1.4	4.0	5.5	17.7	19.0	20.6	22.0	23.3	35.7	37.2	39.7	30 20.55	0.13	12.27	14 30 8.15	4.89
	* − 37° 26′	33	13.9	16.4	17.7	29.9	31.2	32.7	34.2	35.5	47.5	49.1	51.8	37 32.72	0.13	12.27	14 37 20.32	4.90
	* − 37° 6′	34	. .	. .	. .	51.4	52.8	54.4	55.9	57.1	9.0	10.5	13.1	41 0.52	6.36	12.27	14 40 41.89	4.90
	* − 23° 45′	35	9.3	11.6	12.7	23.2	24.4	25.7	26.9	28.1	38.7	39.8	42.1	44 25.68	0.10	12.27	14 44 13.31	4.72
	O. Arg. S. 14065	†36	. .	. .	. .	. .	. .	. .	27.9	30.0	31.3	32.6	34.4	49 31.24	36.87	12.27	14 48 42.10	4.75
	* − 32° 0′	37	54.4	56.7	57.9	9.4	10.5	11.9	13.4	14.6	25.9	27.1	29.6	54 11.95	0.11	12.27	14 53 59.57	4.84
	* − 37° 11′	38	33.1	35.6	37.2	49.0	50.3	51.9	53.4	54.6	6.8	8.3	10.8	56 51.91	0.12	12.27	14 56 39.52	4.93
	Lacaille 6239	39	32.5	35.0	36.4	48.6	50.0	51.6	53.1	54.3	6.5	7.9	10.5	0 51.49	0.13	12.27	15 0 39.09	4.95
	* − 37° 5′	40	13.1	15.7	17.0	29.0	30.2	31.7	33.3	34.6	46.7	48.1	50.7	5 31.83	0.12	12.27	15 5 19.44	4.94
	* − 37° 2′	41	39.5	41.9	43.0	55.3	56.6	58.1	59.6	0.6	12.8	14.2	16.8	7 58.04	0.12	12.26	15 7 45.66	4.95
	* − 37° 7′	42	55.5	58.3	59.5	11.6	12.8	14.2	15.8	17.0	29.0	30.4	32.9	11 14.27	0.12	12.26	15 11 1.89	4.95
	* − 37° 9′	43	46.2	48.8	50.2	2.2	3.5	5.2	6.6	7.9	19.9	21.4	23.9	13 5.07	0.12	12.26	15 12 52.69	4.96
	* − 37° 5′	44	. .	. .	. .	36.8	37.9	39.5	41.0	42.5	54.4	55.8	58.3	13 45.78	6.36	12.26	15 13 27.16	4.96
	* − 37° 2′	45	. .	. .	. .	. .	. .	. .	19.6	22.3	23.8	25.7	27.3	17 23.74	41.41	12.26	15 16 30.07	4.96
	* − 37° 1′	46	. .	. .	. .	55.9	57.3	0.0	18.3	20.9	22.6	24.2	25.8	18 13.12	32.15	12.26	15 17 28.71	4.96
	* − 37° 15′	47	1.6	4.3	5.6	17.6	18.8	20.4	21.8	23.2	35.3	36.7	39.3	22 20.42	0.12	12.26	15 22 8.04	4.98
	Lacaille 6406	48	. .	. .	. .	. .	. .	. .	21.5	23.9	25.5	27.1	28.5	24 25.30	39.06	12.26	15 23 33.98	4.88
	* − 32° 0′	49	. .	. .	. .	13.4	14.6	16.0	17.3	18.6	30.0	31.2	33.6	27 21.84	5.97	12.26	15 27 3.61	4.88
	* + 37° 55′	50	. .	. .	. .	47.2	48.4	49.9	51.5	52.6	4.8	6.3	9.0	39 56.21	− 6.41	−12.26	15 39 37.54	+ 2.60

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
June 15, 15.6	− 12.26	+ 0.010	+ 0.01	− 0.09

23. Very faint, (10th mag.)
25-36. Very faint.

r.

June 13. Image west 0.50. Clamp east.
Image west 0.69. Clamp west.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
June 15 Y.	ε Serpentis	1	13.5	15.5	16.5	26.3	27.4	28.5	29.8	30.8	40.4	41.6	43.6	44 28.54	– 0.09	–12.26	15 44 16.19	+ 3.99
	Weisse (2) 1273	2	1.4	3.9	5.4	17.4	18.6	20.2	21.7	23.1	34.9	36.3	39.0	51 20.17	0.11	12.26	15 51 7.80	2.54
	Weisse (2) 1367	3	4.3	7.0	8.5	20.5	21.9	23.4	24.8	26.2	38.2	39.5	42.2	54 23.32	0.11	12.26	15 54 10.95	2.50
	B. A. C. 5336	4	23.5	26.2	27.6	39.5	40.8	42.4	43.9	45.1	57.2	58.5	1.2	58 42.35	0.11	12.26	15 58 29.98	2.48
	δ Ophiuchi	5	25.3	27.3	28.5	37.9	39.0	40.3	41.5	42.4	52.0	53.1	55.2	7 40.23	0.09	12.25	16 7 27.89	4.14
	Lacaille 6774	6	. .	. .	. .	. .	. .	. .	30.3	32.9	34.4	36.2	37.6	10 34.28	40.18	12.25	16 9 41.85	5.01
	Lacaille 6806	7	32.0	34.6	35.8	47.5	48.8	50.3	51.8	52.9	4.6	6.0	8.5	14 50.25	0.12	12.25	16 14 37.88	5.01
	Lacaille 6821	8	3.8	6.4	7.7	19.5	20.6	22.0	23.5	24.7	36.4	37.8	40.4	17 22.07	0.12	12.25	16 17 9.70	5.02
	Weisse (2) 573 (1st*)	9	. .	. .	. .	38.8	40.0	41.6	43.2	44.5	. .	. .	. .	19 41.62	0.11	12.25	16 19 29.26	2.29
	Weisse (2) 573 (2d*)	10	. .	. .	. .	56.7	58.0	0.8	19.3	21.9	23.5	25.2	26.7	20 14.01	32.26	12.25	16 19 29.50	2.29
	O. Arg. S. 15725	11	. .	. .	. .	. .	. .	. .	40.2	42.5	44.0	45.4	46.7	26 43.76	36.20	12.25	16 25 55.31	4.73
	Lacaille 6910	12	11.8	14.4	15.6	27.6	28.9	30.5	32.0	33.3	45.4	46.7	49.2	30 30.49	0.12	12.25	16 30 18.12	5.12
	Lacaille 6933	13	16.7	19.2	20.5	32.6	33.8	35.5	36.8	38.1	50.3	51.5	54.2	33 35.38	0.12	12.25	16 33 23.01	5.12
	* – 39° 10′	14	. .	. .	. .	53.6	54.8	56.5	58.1	59.4	11.9	13.3	16.0	36 2.95	6.55	12.25	16 35 44.15	5.20
	Lacaille 6970	15	42.4	45.2	46.5	58.8	0.0	1.6	3.1	4.5	16.9	18.4	21.0	38 1.67	0.13	12.25	16 37 49.29	5.21
	Lalande 30745	16	43.1	45.7	47.1	59.4	0.8	2.3	3.9	5.1	17.4	18.8	21.4	47 2.27	0.11	12.25	16 46 49.91	+ 2.04
	B. A. C. 5705	17	. .	. .	. .	13.7	19.2	29.3	38.0	48.1	53.8	0.8	6.0	51 18.61	2 0.77	12.25	16 49 5.59	– 10.24
	O. Arg. S. 16240	18	50.0	52.3	53.6	4.4	5.6	6.8	8.1	9.3	20.0	21.3	23.7	55 6.83	0.11	12.25	16 54 54.47	+ 4.85
	ε Ursæ Minoris	19	. .	. .	. .	39.2	45.9	55.7	4.6	12.3	. .	. .	. .	59 55.54	0.59	12.25	16 59 42.70	– 19.90
	Weisse (2) 107	20	. .	4.0	5.3	17.8	19.0	20.6	22.0	23.4	35.7	37.1	. .	5 20.54	0.11	12.25	17 5 8.18	+ 1.95
	α^1 Herculis	21	36.8	38.8	40.0	49.9	50.9	52.3	53.5	54.5	4.5	5.6	7.8	8 52.24	0.09	12.25	17 8 39.90	3.36
17	Lacaille 5999	22	5.6	8.3	9.7	22.0	23.4	25.0	26.5	27.8	40.2	41.7	44.2	28 24.95	0.13	12.42	14 28 12.40	4.91
	* – 32° 13′	23	59.8	2.3	3.4	14.8	16.0	17.5	18.7	20.0	31.4	32.6	35.3	34 17.44	0.11	12.42	14 34 4.91	4.84
	* + 27° 3′	24	. .	. .	. .	. .	. .	. .	27.2	29.6	31.0	32.5	33.7	39 30.80	37.11	12.42	14 38 41.27	3.72
	O. Arg. S. 13951	25	. .	. .	. .	6.1	7.4	9.7	25.8	28.2	29.5	30.9	32.3	42 21.24	28.04	12.42	14 41 40.78	4.73
	O. Arg. S. 13953	26	. .	. .	. .	53.8	54.8	56.1	57.5	58.5	. .	. .	. .	41 56.14	0.10	12.42	14 41 43.62	4.73
	O. Arg. S. 13958	27	. .	. .	. .	45.9	47.2	49.3	5.5	7.8	9.3	10.8	11.9	43 0.96	28.03	12.42	14 42 20.51	4.73
	O. Arg. S. 14065	†28	. .	. .	. .	. .	. .	. .	. .	30.2	31.7	33.0	34.5	49 32.35	37.76	12.42	14 48 42.17	4.76
	* – 27° 34′	29	8.4	10.4	11.8	22.6	23.7	25.0	26.4	27.5	38.4	39.7	42.0	56 25.08	0.11	12.42	14 56 12.55	4.78
	* – 31° 57′	30	39.8	42.2	43.5	54.9	56.2	57.5	58.8	0.2	11.6	12.7	15.2	58 57.51	0.11	12.42	14 58 44.98	4.85
	β Libræ	31	. .	. .	. .	20.9	22.0	24.0	38.8	41.1	42.5	43.8	45.0	10 34.76	25.98	12.42	. . . .	4.42
	α Coronæ Borealis	32	3.6	5.9	7.2	17.9	18.9	20.3	21.5	22.8	33.5	34.7	37.2	29 20.32	0.10	12.43	. . . .	3.29
	* + 38° 26′	33	10.9	13.5	14.8	27.3	28.6	30.0	31.6	32.9	45.2	46.6	49.3	33 30.06	0.11	12.43	15 33 17.52	2.64
	Weisse (2) 862	34	. .	. .	. .	42.9	44.3	45.7	47.3	48.5	0.7	2.3	4.8	35 52.06	6.41	12.43	15 35 33.22	2.65
	Weisse (2) 973	35	30.9	33.7	35.2	47.5	48.8	50.2	51.8	53.0	5.3	6.5	9.1	39 50.18	0.11	12.43	15 39 37.64	2.61
	Lalande 28799	36	. .	. .	. .	56.2	57.5	0.2	18.7	21.4	22.7	24.7	26.2	42 13.45	32.06	12.43	15 41 28.96	2.66
	Lalande 28801	37	. .	. .	. .	40.4	41.7	43.2	44.7	46.0	. .	. .	. .	41 43.20	0.11	12.43	15 41 30.66	2.66
	Lalande 28917	38	38.6	41.2	42.3	54.8	56.1	57.7	59.3	0.6	12.6	14.0	16.9	45 57.65	0.11	12.43	15 45 45.11	2.53
	Weisse (2) 1273	39	1.6	4.3	5.6	17.8	19.0	20.6	22.2	23.4	35.4	36.7	39.4	51 20.55	0.11	12.43	15 51 8.01	2.55
	Lalande 29146	40	31.8	34.5	35.8	48.0	49.5	50.9	52.5	53.7	5.9	7.3	9.9	53 50.89	0.11	12.43	15 53 38.35	2.46
	θ Lupi	41	52.8	55.4	56.7	8.5	9.8	11.2	12.6	14.0	25.9	27.3	29.9	58 11.28	0.12	12.43	15 57 58.73	5.03
	* – 21° 16′	42	55.1	56.4	57.5	58.7	59.8	. .	29.4	31.7	33.3	34.5	36.0	4 15.24	17.77	12.43	16 3 45.04	4.64
	B. A. C. 5411	43	54.4	56.9	58.2	10.3	11.7	13.0	14.6	15.9	27.8	29.1	31.7	7 13.05	0.11	12.43	16 7 0.51	2.44
	Lacaille 6774	44	. .	. .	. .	51.8	52.9	54.4	56.0	57.2	8.8	10.3	12.8	10 0.52	6.16	12.44	16 9 41.92	5.00
	* – 34° 39′	45	49.2	51.6	52.8	4.5	5.6	7.1	8.4	9.8	21.6	22.9	25.4	12 7.17	0.12	12.44	16 11 54.61	5.01
	Lacaille 6806	46	32.5	34.9	36.2	47.8	49.1	50.5	52.0	53.3	4.8	6.2	8.7	14 50.55	0.12	12.44	16 14 37.99	5.01
	Lacaille 6821	47	. .	. .	. .	36.7	38.2	40.7	58.6	1.2	2.7	4.4	5.6	16 53.51	31.20	12.44	16 16 9.87	5.01
	ζ Ophiuchi	48	53.2	55.3	56.4	6.0	7.2	8.4	9.6	10.7	20.5	21.6	23.8	30 8.43	0.09	12.44	. . . .	4.28
22	α Virginis	49	15.7	17.8	18.9	28.6	29.7	30.9	32.2	33.2	43.0	44.0	46.2	18 30.93	0.11	14.81	13 18 16.01	+ 4.85
	Polaris S. P.	50	. .	. .	. .	. .	. .	. .	40.0	19.0	10.0	1.0	52.0	34 0.40	– 23 0.92	–14.82		

28. Faint.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
June 17, 15.7	– 12.43	– 0.010	+ 0.01	– 0.09

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
June 22	B. A. C. 4614 . .	1	. .	. .	. .	. .	. .	. .	55.4	5.9	12.6	19.6	25.8	45 11.86	− 2 48.56	−14.83	13 42 8.47	− 0.03
Y.	Lalande 25635 .	2	7.8	10.1	11.2	21.7	22 7	24.0	25.3	26.4	36.7	37.9	40.2	50 24.00	0.14	14.83	13 50 9.03	+ 4.81
	* + 23° 57′ . .	3	47.2	49.4	50.5	1.2	2.3	3.6	4.9	5.8	16.5	17.6	19.9	54 3.54	0.06	14.83	13 53 48.65	4.30
	* + 35° 12′ . .	4	9.0	11.6	12.8	24.6	25.9	27.5	28.8	30.0	41.7	43.2	45.7	10 27.35	0.05	14.84	14 10 12.46	3.84
	O. Arg. S. 13544 .	5	6.5	8.7	9.8	20.4	21.5	22.8	24.2	25.3	35.7	37.0	39.3	13 22.84	0.14	14.85	14 13 7.85	4.79
	* − 26° 39′ . .	6	2.1	4.4	5.5	16.4	17.5	18.8	20.2	21.4	32.0	33.2	35.7	16 18.84	− 0.15	14.85	14 16 3.84	4.82
	O. Arg. S. 13626 .	7	40.5	42.8	43.9	54.9	56.0	57.5	58.8	59.7	. .	. .	. .	19 51.76	+ 5.45	14.85	14 19 42.36	4.82
	O. Arg. S. 13629 .	8	. .	. .	. .	3.6	4.7	6.1	7.4	8.5	19.4	20.8	23.0	20 11.69	− 5.75	14.85	14 19 51.09	4.82
	O. Arg. S. 13647 .	9	54.5	56.8	58.0	8.9	10.1	11.5	12.7	13.9	24.7	26.0	28.3	21 11.40	0.15	14.85	14 20 56.40	4.82
	O. Arg. S. 13663 .	10	. .	. .	. .	. .	. .	. .	8.5	10.8	12.3	14.8	16.0	24 12.48	36.23	14.85	14 23 21.40	4.78
	O. Arg. S. 13694 .	11	. .	. .	. .	28.0	29.0	30.4	31.7	32.7	43.3	44.6	46.7	24 35.80	5.59	14.85	14 24 15.36	4.78
	* + 37° 43′ . .	12	48.4	50.8	52.3	4.3	5.6	7.0	8.6	10.0	22.0	23.6	26.3	29 7.17	0.05	14.86	14 28 52.26	3.51
	* − 32° 12′ . .	13	2.0	4.5	5.6	17.0	18.3	19.6	21.0	22.3	33.6	34.9	37.4	34 19.65	0.17	14.87	14 34 4.61	4.88
	* + 37° 27′ . .	14	41.0	43.8	45.0	57.2	58.5	0.1	1.5	2.7	14.7	16.3	18.9	40 59.97	0.05	14.87	14 40 45.05	3.37
	B. A. C. 4897 . .	15	52.9	55.7	56.9	9.2	10.6	12.1	13.7	14.9	27.2	28.5	31.2	44 12.08	0.05	14.87	14 43 57.16	3.25
	* + 38° 30′ . .	16	31.2	33.7	35.0	47.5	46.8	50.3	51.7	53.2	5.3	6.7	9.5	50 50.08	0.05	14.87	14 50 35.16	3.19
	* − 32° 0′ . .	17	56.8	59.2	0.4	11.9	13.0	14.4	15.8	16.9	28.5	29.6	32.1	54 14.42	0.17	14.87	14 53 59.38	4.88
	Weisse 1048 . .	18	. .	48.4	49.4	59.3	0.4	1.5	2.7	3.7	13.5	14.7	. .	57 1.51	− 0.11	14.87	14 56 46.53	4.51
	Lacaille 6239 . .	19	7.8	9.6	11.0	12.7	15.6	. .	31.8	34.4	36.1	37.9	39.4	0 53.63	+ 0.26	14.88	15 0 39.01	4.99
	* − 38° 2′ . . .	20	44.7	47.2	48.8	1.0	2.1	3.7	5.3	6.5	18.5	19.9	22.7	1 3.67	− 0.18	14.88	15 0 48.61	4.99
	Lacaille 6267 . .	21	40.5	43.2	44.5	56.7	58.0	59.5	1.0	2.3	14.6	15.9	18.6	5 59.53	0.18	14.88	15 5 44.47	5.00
	B. A. C. 5026 . .	22	31.3	34.0	35.3	47.7	49.0	50.6	52.1	53.4	5.7	7.1	9.7	8 50.54	0.05	14.88	15 8 35.61	2.95
	Weisse (2) 237 .	23	16.9	19.6	20.8	33.0	34.4	35.9	37.4	38.6	50.7	52.2	54.9	11 35.85	0.05	14.89	15 11 20.91	2.98
	Lalande 27996 .	24	15.5	18.0	19.5	31.7	33.0	34.4	36.0	37.3	49.6	51.0	53.6	14 34.51	− 0.05	14.89	15 14 19.57	2.91
	* + 38° 40′ . .	25	12.2	14.8	16.2	28.4	29.8	31.2	32.9	34.1	. .	. .	. .	19 24.95	+ 6.32	14.89	15 19 16.38	2.83
	Rumker 5072 . .	†26	. .	. .	. .	54.0	55.3	57.5	. .	19.6	21.3	23.0	24.5	20 10.74	− 32.03	14.89	15 19 23.82	2.83
	Lacaille 6406 . .	27	31.3	33.7	34.9	46.3	47.5	48.8	50.4	51.5	2.9	4.2	6.7	23 48.93	0.17	14.89	15 23 33.87	4.84
	α Coronæ Borealis .	28	5.8	8.1	9.4	20.1	21.3	22.7	24.0	25.2	36.0	37.2	39.6	29 22.67	0.05	14.90	15 29 7.72	3.32
	* + 38° 27′ . .	29	13.3	15.9	17.3	29.6	30.8	32.5	33.9	35.2	47.7	49.0	51.6	33 32.44	0.05	14.90	15 33 17.49	2.68
	Weisse (2) 862 .	30	29.1	31.7	32.9	45.2	46.7	48.1	49.7	50.9	3.0	4.7	7.2	35 48.11	0.05	14.90	15 35 33.16	2.69
	* + 37° 56′ . .	31	33.5	36.2	37.5	49.7	50.9	52.5	54.0	55.2	7.6	9.0	11.5	39 52.51	0.05	14.90	15 39 37.56	2.65
	Lalande 28834 .	32	29.2	31.9	33.1	45.4	46.7	48.1	49.7	50.9	3.0	4.5	7.0	42 48.14	0.05	14.91	15 42 33.18	2.64
	Lalande 28926 .	33	58.7	1.3	2.7	14.8	16.1	17.7	19.3	20.4	32.5	34.0	36.6	46 17.65	0.05	14.91	15 46 2.69	2.58
	O. Arg. S. 15101 .	34	30.9	33.1	34.4	44.9	46.3	47.5	48.8	50.0	0.7	1.9	4.3	52 47.53	0.15	14.91	15 52 32.47	4.77
	. B. A. C. 5336 . .	35	26.2	27.8	30.0	42.3	43.5	45.0	46.6	47.7	59.8	1.2	4.9	58 45.00	0.05	14.92	15 58 30.03	2.52
	Lalande 29341 .	36	. .	. .	. .	44.0	45.4	48.0	5.9	8.6	10.0	11.7	13.0	0 0.82	31.10	14.92	15 59 14.80	2.67
	B. A. C. 5471 . .	37	17.4	19.7	20.9	32.1	33.4	34.7	36.0	37.2	48.7	49.9	52.4	17 34.76	0.16	14.93	16 17 19.67	4.92
	25 Herculis . . .	38	39.9	42.5	43.9	56.0	57.5	58.9	0.4	1.7	13.8	15.3	17.9	20 58.89	0.05	14.93	16 20 43.91	2.25
	* + 35° 44′ . .	39	18.6	21.0	22.2	34.2	35.5	36.9	38.4	39.5	51.7	53.0	55.6	29 36.96	0.05	14.94	16 29 21.97	2.35
	Lalande 30327 .	40	45.4	48.1	49.5	1.6	2.9	4.4	6.0	7.2	19.3	20.7	23.4	33 4.41	0.05	14.94	16 32 49.42	2.18
	Lalande 30119 .	41	34.5	37.0	38.3	50.5	51.9	53.5	55.0	56.2	8.3	9.7	12.4	35 53.39	0.05	14.94	16 35 38.40	2.17
	Weisse (2) 1341 .	42	59.1	1.8	3.1	15.3	16.6	18.2	19.7	21.0	33.0	34.6	37.0	43 18 13	0.05	14.95	16 43 3.13	2.10
	* − 26° 33′ . .	43	4.4	6.7	7.9	18.7	19.8	21.1	22.5	23.6	34.5	35.5	37.9	46 21.15	0.15	14.95	16 46 6.05	4.79
	* − 26° 31′ . .	44	17.7	20.3	21.6	32.3	33.6	34.9	36.0	37.3	48.0	49.3	51.6	49 34.78	0.15	14.95	16 49 19.68	4.79
	κ Ophiuchi . . .	45	27.2	29.3	30.3	40.2	41.1	42.4	43.5	44.5	54.3	55.5	57.7	51 42.36	0.08	14.95	16 51 27.33	3.54
	* − 37° 0′ . . .	46	33.2	35.9	36.9	49.0	50.4	51.9	53.6	54.6	6.7	8.0	10.7	54 51.90	− 0.18	14.95	16 54 36.77	5.13
	* − 37° 0′ . . .	47	16.3	17.8	19.4	21.0	23.9	. .	38.9	41.8	43.4	45.0	46.5	55 1.40	+ 0.26	14.95	16 54 46.71	5.13
	Lacaille 7123 . .	48	40.4	41.6	43.0	44.6	45.8	. .	20.3	23.1	24.6	26.2	27.9	58 3.75	− 20.82	14.96	16 57 27.97	5.14
	* − 36° 57′ . .	49	27.5	30.0	31.4	. .	. .	. .	. .	. .	0.7	2.5	4.9	57 46.17	0.18	14.96	16 57 31.03	5.14
	* − 37° 20′ . .	50	57.7	59.8	1.6	13.6	14.8	16.4	17.7	19.2	31.4	32.6	35.0	3 16.35	− 0.18	−14.96	17 3 1.21	+ 5.16

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
June 22, 15.8	− 14.91	− 0.040	+ 0.09	− 0.09

26. Through clouds.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	
June 22 Y.	B. A. C. 5815 . .	†1	21.5	23.8	24.9	35.8	36.8	38.0	39.4	40.5	. .	. .	. .	8 32.59	+ 5.35	−14.96	17 8 22.98	+ 4.76
	Lalande 31492 .	2	18.7	20.9	21.9	31.6	32.6	33.9	35.0	36.0	45.7	46.8	48.9	13 33.82	− 0.10	14.97	17 13 18.75	4.10
	O. Arg. S. 16710 .	3	0.2	2.6	4.0	15.2	16.4	17.8	19.2	20.3	31.6	32.7	35.2	16 17.75	0.16	14.97	17 16 2.62	4.94
	α Ophiuchi . . .	4	50.4	52.5	53.7	3.4	4.5	5.8	7.0	8.0	17.8	18.9	20.9	29 5.72	0.08	14.98	17 28 50.66	3.38
24	* + 50° 54′ . .	5	15.3	18.5	20.4	35.4	37.0	38.8	40.6	42.0	57.5	59.3	2.7	27 38.86	0.03	16.80	14 27 22.03	2.91
	Lacaille 6038 . .	6	. .	58.7	0.0	11.8	13.2	14.7	16.1	17.4	29.0	30.6	. .	33 14.61	0.18	16.80	14 32 57.63	4.94
	Lacaille 6064 . .	7	39.0	41.4	42.6	53.6	54.7	56.3	57.7	58.8	9.9	11.2	13.4	35 56.24	0.16	16.80	14 35 39.28	4.86
	ε Bootis	8	14.7	17.1	18.4	29.3	30.5	31.7	33.0	34.3	45.0	46.4	48.6	39 31.73	0.05	16.80	. . . .	3.76
	Lacaille 6109 . .	9	51.0	53.5	54.6	5.8	7.0	8.6	10.0	11.2	22.8	24.0	26.5	42 8.64	0.16	16.80	14 41 51.68	4.89
	* + 37° 7′ . . .	10	. .	. .	. .	49.0	50.3	51.8	53.3	54.6	6.7	8.1	10.8	44 54.08	6.29	16.79	14 44 35.00	3.36
	Weisse 1048 . .	11	48.2	50.4	51.4	1.1	2.0	3.3	4.6	5.6	15.4	16.6	18.6	57 3.38	0.11	16.79	14 56 46.48	4.52
	Weisse 1063 . .	12	. .	. .	. .	24.2	25.3	26.6	27.7	28.8	38.4	39.6	41.8	57 31.55	5.17	16.79	14 57 9.59	4.52
	Lalande 27803 .	13	21.7	24.3	25.7	37.4	38.8	40.3	41.7	42.8	54.6	56.0	58.7	8 40.18	5.05	16.79	15 8 23.34	3.15
	Weisse (2) 237 .	14	. .	. .	. .	52.7	54.1	56.7	15.5	18.0	19.7	21.5	22.8	12 10.12	32.30	16.79	15 11 21.03	3.01
	Lacaille 27996 .	15	17.3	19.9	21.3	33.5	34.9	36.5	38.0	39.2	51.5	52.9	55.6	14 36.42	0.05	16.79	15 14 19.58	2.94
	* + 38° 40′ . .	16	13.9	16.7	18.1	30.2	31.6	33.1	34.7	35.9	48.3	49.8	52.6	19 33.17	− 0.05	16.79	15 19 16.33	2.85
	Rumker 5072 . .	17	54.1	55.9	57.4	58.9	1.9	. .	18.7	21.6	23.2	25.0	26.6	19 40.33	+ 0.39	16.79	15 19 23.93	2.85
	Weisse (2) 571 .	18	48.7	51.6	52.8	5.0	6.4	7.8	9.5	10.8	23.1	24.5	27.0	26 7.93	− 0.05	16.79	15 25 51.09	2.78
	ζ Caronæ Bor.,(1st *)	19	23.9	26.6	27.7	. .	. .	. .	. .	. .	57.4	58.7	1.5	34 42.63	0.05	16.79	15 34 25.79	2.78
	ζ Coronæ Bor., (2d *)	20	. .	. .	. .	40.2	41.6	43.1	44.7	45.9	. .	. .	. .	34 43.10	0.05	16.79	15 34 26.26	2.78
	Weisse 818 . .	21	. .	. .	. .	41.7	42.9	45.1	59.7	1.7	2.8	4.2	5.5	43 55.45	25.70	16.79	15 43 12.96	4.20
	κ Coronæ Borealis .	22	. .	. .	. .	. .	. .	. .	10.8	13.6	15.2	16.9	17.3	47 14.76	40.81	16.79	15 46 17.16	2.72
	Weisse (2) 1336 .	23	29.6	32.0	33.4	45.6	46.8	48.5	50.0	51.4	3.5	4.7	7.5	53 48.45	0.05	16.79	15 53 31.61	2.55
	β^1 Scorpii	†24	49.4	51.5	52.6	2.7	3.8	5.1	6.4	7.5	17.6	18.7	21.0	58 5.12	0.13	16.79	. . . .	4.64
	* − 26° 36′ . .	25	. .	. .	. .	29.2	30.3	31.7	32.9	34.0	. .	. .	. .	2 31.62	0.15	16.79	16 2 14.68	4.78
	B. A. C. 5416 . .	26	48.0	50.2	51.6	2.6	3.8	5.4	6.7	7.9	19.0	20.3	22.6	8 5.28	0.16	16.79	16 7 48.33	4.88
	* + 37° 13′ . .	27	48.0	50.5	51.7	4.2	5.6	6.9	8.6	9.8	21.6	23.0	25.7	13 6.87	0.05	16.79	16 12 50.03	2.39
	ζ Ophiuchi . . .	28	57.5	59.7	0.6	10.5	11.4	12.7	13.9	15.0	24.7	25.8	27.8	30 12.69	0.11	16.79	. . . .	4.40
	Weisse (2) 1341 .	29	1.1	3.7	5.0	17.5	18.6	20.2	21.5	22.8	35.3	36.7	39.2	43 20.15	0.05	16.78	16 43 3.32	2.11
26	Polaris, S. P. . .	30	. .	. .	. .	. .	. .	. .	. .	55.0	32.5	24.0	15.0	7.0	34 14.70	22 59.19	23.29	. . . .	. .
	ε Bootis	31	. .	. .	. .	50.3	51.5	52.8	54.0	55.2	5.5	6.8	9.0	43 58.14	5.44	23.29	13 43 29.41	4.48
	η Bootis	32	32.8	35.0	36.0	46.2	47.4	48.6	49.8	50.9	1.1	2.3	4.6	48 48.61	0.07	23.29	13 48 25.25	4.46
	Lacaille 5877 . .	33	57.7	0.3	1.4	13.3	14.4	15.9	17.4	18.5	30.2	31.5	34.0	9 15.87	0.15	23.29	14 8 52.43	4.94
	Weisse (2) 196 .	†34	33.3	35.5	36.6	47.0	48.2	49.4	50.7	51.7	1.8	3.0	5.3	10 49.32	0.07	23.29	14 10 25.96	4.24
	Lacaille 5925 . .	35	5.5	8.0	9.3	21.5	22.8	24.3	25.7	26.9	39.0	40.4	43.0	17 24.22	0.16	23.29	14 17 0.77	4.97
	* + 38° 8′ . .	36	50.7	53.4	54.7	6.9	8.3	9.9	11.5	12.7	24.9	26.2	28.9	23 9.83	0.07	23.29	14 22 46.47	3.63
	* − 34° 14′ . .	37	58.3	0.7	1.9	13.6	14.8	16.3	17.7	18.9	30.6	31.8	34.4	29 16.27	0.15	23.29	14 28 52.83	4.94
	Lacaille 6027 . .	38	26.6	29.0	30.0	41.6	42.8	44.3	45.7	46.8	58.3	59.6	2.0	31 44.25	0.15	23.29	14 31 20.81	4.92
	Lacaille 6051 . .	39	5.6	8.0	9.2	20.0	21.4	22.7	24.0	25.1	36.3	37.5	39.8	34 22.69	0.14	23.29	14 33 59.26	4.87
	O. Arg. S. 13951 .	40	47.8	49.8	51.0	1.7	2.8	3.9	5.3	6.5	17.0	18.2	20.5	42 4.05	− 0.13	23.29	14 41 40.63	4.79
	O. Arg. S. 13953 .	41	27.1	28.5	29.8	31.2	33.8	. .	39.3	41.6	43.0	44.4	45.8	42 6.45	+ 0.25	23.29	14 41 43.41	4.79
	O. Arg. S. 13958 .	42	. .	. .	. .	56.6	57.8	0.1	16.3	18.5	19.9	21.4	22.6	43 11.65	− 28.06	23.29	14 42 20.30	4.78
	O. Arg. S. 14039 .	43	40.4	42.7	43.9	54.8	56.0	57.5	58.7	59.9	10.8	11.9	14.4	46 57.36	0.14	23.29	14 46 33.93	4.84
	O. Arg. S. 14042 .	44	. .	. .	. .	25.9	27.1	29.6	46.1	48.5	50.0	51.5	52.7	47 41.42	29.03	23.29	14 46 49.10	4.84
	Lacaille 6178 . .	45	1.4	3.8	5.2	17.5	18.8	20.2	21.8	22.8	35.0	36.3	39.0	51 20.16	0.16	23.29	14 50 56.71	5.00
	B. A. C. 4941 . .	46	38.7	40.8	41.9	51.5	52.5	53.7	54.8	55.9	5.4	6.7	8.7	54 53.69	0.09	23.29	14 54 30.31	4.39
	* − 26° 22′ . .	47	43.5	46.0	47.3	57.9	59.0	0.4	1.7	2.8	13.6	14.7	17.1	58 0.36	0.13	23.29	14 57 36.94	4.81
	O. Arg. S. 14289 .	48	18.0	20.3	21.5	32.2	33.4	34.6	35.9	36.9	47.7	48.9	51.3	1 34.61	0.13	23.29	15 1 11.19	4.80
	Lalande 27880 .	49	5.5	7.5	8.8	18.7	19.9	21.2	22.5	23.5	33.6	34.8	36.9	12 21.17	0.12	23.28	15 11 57.77	4.65
	O. Arg. S. 14487 .	50	. .	. .	. .	49.9	51.3	52.6	53.9	55.1	6.3	7.5	9.8	14 58.30	− 5.88	−23.28	15 14 29.14	+ 4.87

1. Cloudy; saw but one star.
24. Unsteady.
34. Two stars of same R. A. observed northward.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
June 24, 15.7	− 16.79	+ 0.005	+ 0.09	− 0.09

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
June 26	O. Arg. S. 14490 .	1	. .	. .	. .	21.7	23.2	25.6	42.6	45.0	46.4	48.0	49.3	15 37.72	— 29.65	—23.28	15 14 44.79	+ 4.87
Y.	Lalande 28213 .	2	12.2	14.4	15.6	25.9	26.9	28.3	29.6	30.7	41.0	42.1	44.3	23 28.27	0.12	23.28	15 23 4.87	4.69
	O. Arg. S. 14674 .	3	55.9	58.3	59.5	10.0	11.2	12.5	13.8	14.9	25.5	26.7	29.0	28 12.48	0.13	23.28	15 27 49.07	4.76
	* — 22° 29′ . .	4	. .	. .	. .	. .	. .	. .	. .	27.7	29.0	30.4	31.6	30 29.68	36.66	23.28	15 29 29.74	4.73
	* — 22° 29′ . .	5	8.2	10.7	11.8	22.3	23.3	24.6	26.0	26.9	37.5	38.7	40.9	32 24.63	0.12	23.28	15 32 1.23	4.70
	Lacaille 6495 . .	6	24.8	27.2	28.4	39.6	40.7	42.1	43.5	44.8	55.8	57.0	59.5	35 42.13	0.14	23.28	15 35 18.71	4.87
	α Serpentis . . .	7	. .	. .	. .	23.3	24.4	26.5	41.3	43.5	44.7	46.0	47.3	38 37.12	25.84	23.28	15 37 48.00	3.99
	O. Arg. S. 14904 .	8	20.8	23.2	24.1	34.4	35.5	36.7	38.0	39.2	49.3	50.5	52.6	41 36.75	0.12	23.28	15 41 13.35	4.62
	* — 14° 24′ . .	9	21.3	23.5	24.6	34.5	35.6	36.9	38.1	39.0	49.0	50.2	52.4	44 36.83	0.11	23.28	15 44 13.44	4.50
	* — 10° 43′ . .	10	9.4	11.5	12.5	22.3	23.4	24.7	25.9	27.0	36.5	37.7	39.9	47 24.62	0.10	23.28	15 47 1.24	4.40
	O. Arg. S. 15072 .	11	57.6	59.8	0.8	11.2	12.3	13.6	14.8	15.9	26.2	27.4	29.5	51 13.55	0.12	23.28	15 50 50.15	4.64
	O. Arg. S. 15101 .	12	39.3	41.6	42.7	53.5	54.6	56.0	57.3	58.5	9.0	10.4	12.8	52 55.97	0.13	23.28	15 52 32.56	4.78
	* — 24° 19′ . .	13	28.4	30.6	31.7	42.3	43.5	44.8	46.1	47.2	57.7	58.8	1.3	55 44.76	0.13	23.28	15 55 21.35	4.73
	* — 11° 34′ . .	14	28.4	30.5	31.6	41.3	42.5	43.6	44.9	45.9	55.7	56.8	59.0	59 43.65	0.10	23.28	15 59 20.27	4.40
	Lacaille 6716 . .	15	21.3	23.9	25.2	37.9	39.0	40.7	42.3	43.6	56.2	57.5	0.4	2 40.73	0.17	23.28	16 2 17.28	5.14
	Weisse (2) 154 .	16	. .	. .	. .	57.4	58.7	0.4	2.0	3.3	. .	. .	. .	6 0.36	0.18	23.28	16 5 36.90	2.11
	* — 34° 31′ . .	17	59.4	1.7	3.5	. .	. .	. .	. .	. .	32.0	33.5	35.9	9 17.67	0.15	23.28	16 8 54.24	5.00
	Lacaille 6765 . .	18	. .	. .	. .	15.5	16.7	17.9	19.4	20.6	. .	. .	. .	9 18.02	0.15	23.28	16 8 54.59	5.00
	Lacaille 6774 . .	19	. .	. .	. .	19.8	21.0	23.6	41.5	44.2	45.7	47.3	48.6	10 36.46	— 31.23	23.28	16 9 41.95	5.00
	B. A. C. 5464,(1st*)	20	6.8	8.2	9.8	11.2	13.8	. .	22.6	25.0	26.5	28.1	29.4	16 48.14	+ 0.26	23.28	16 16 25.12	4.86
	B. A. C. 5464, (2d*)	21	31.4	33.9	35.1	46.0	47.2	48.6	49.9	51.2	2.0	3.4	5.8	16 48.59	— 0.14	23.28	16 16 25.17	4.86
	ζ Ophiuchi . . .	22	4.1	5.9	7.1	16.8	17.9	19.3	20.5	21.5	31.3	32.4	34.4	30 19.20	0.10	23.28	16 29 55.82	4.25
	O. Arg. S. 15811 .	23	13.9	16.2	17.4	27.8	28.9	30.4	31.8	32.9	43.7	44.9	47.3	32 30.47	0.13	23.28	16 32 7.06	4.77
	* — 26° 14′ . .	24	. .	. .	. .	21.3	22.6	23.8	25.1	26.2	37.0	38.3	40.6	35 29.36	5.68	23.28	16 35 0.40	4.77
	Lalande 30506 .	25	. .	. .	. .	25.3	26.5	27.7	29.0	30.1	40.2	41.4	43.7	40 32.99	5.40	23.28	16 40 4.31	4.57
	* — 26° 40′ . .	26	50.3	52.5	53.7	4.4	5.7	7.0	8.3	9.4	20.2	21.5	23.9	44 6.99	0.13	23.28	16 43 43.58	4.78
	* — 26° 44′ . .	27	. .	. .	. .	42.0	43.4	45.7	2.1	4.6	6.0	7.6	8.9	44 57.54	28.76	23.28	16 44 5.50	4.78
	* — 26° 34′ . .	28	. .	. .	. .	25.1	26.4	28.8	45.3	47.5	49.0	50.4	51.7	45 40.52	28.72	23.28	16 44 48.52	4.78
	* — 26° 33′ . .	29	12.6	15.2	16.3	27.3	28.3	29.7	30.9	32.1	42.7	44.0	46.4	46 29.59	0.13	23.28	16 46 6.18	4.78
	* — 25° 53′ . .	30	. .	. .	. .	31.9	33.1	34.5	35.8	37.0	47.6	48.8	51.1	50 39.98	0.13	23.28	16 50 11.04	4.76
	Lacaille 7087 . .	31	14.5	16.9	18.2	29.7	31.0	32.4	33.8	35.0	46.6	47.8	50.3	53 32.38	0.15	23.28	16 53 8.95	4.99
	* — 37° 10′ . .	32	40.9	43.4	44.6	56.9	58.1	59.8	1.2	2.5	14.5	16.0	18.4	58 59.66	0.16	23.28	16 58 36.22	5.12
	Lacaille 7168 . .	33	. .	. .	. .	15.8	17.2	18.6	20.0	21.5	. .	. .	. .	5 18.62	— 0.16	23.28	17 4 55.18	5.17
	Lacaille 7174 . .	34	28.5	31.0	32.4	. .	. .	47.5	. .	50.2	2.7	4.0	. .	6 45.19	+ 2.17	23.28	17 6 24.08	5.17
	Lacaille 7207 . .	35	. .	. .	. .	27.8	29.2	30.8	32.2	33.5	45.6	47.0	49.6	9 36.96	— 6.47	23.28	17 9 7.21	5.17
	* — 27° 39′ . .	36	0.0	2.3	3.4	14.5	15.5	16.7	18.2	19.4	30.3	31.5	33.7	12 16.85	0.13	23.28	17 11 53.44	4.82
	O. Arg. S. 16680 .	37	49.5	51.6	52.7	3.0	4.3	5.6	7.0	8.1	18.5	19.6	21.7	15 5.60	0.12	23.27	17 14 42.21	4.65
	* — 20° 41′ . .	38	9.8	12.0	13.2	23.5	24.6	25.8	27.1	28.2	38.4	39.7	41.9	18 25.84	— 0.12	23.27	17 18 2.45	4.59
	* — 40° 57′ . .	39	3.3	4.8	6.8	8.3	11.6	. .	31.2	33.8	35.6	37.3	39.0	22 51.17	+ 0.28	23.27	17 22 28.18	5.30
	* — 37° 22′ . .	40	58.9	1.4	2.8	15.2	16.6	18.0	19.6	20.9	32.8	34.2	36.9	28 17.94	— 0.16	23.27	17 27 54.51	5.17
	* — 35° 5′ . .	41	58.0	0.6	1.7	13.6	. .	. .	. .	19.0	31.0	32.2	34.7	32 16.35	0.16	23.27	17 31 52.92	5.09
	* — 31° 13′ . .	42	41.0	43.5	44.7	56.0	57.2	58.6	0.0	1.3	12.5	13.7	16.1	35 58.60	0.14	23.27	17 35 35.19	4.95
	Taylor 8219 . .	43	54.0	56.2	57.3	7.4	8.5	9.8	11.0	12.5	22.1	23.4	25.6	40 9.75	0.12	23.27	17 39 46.36	4.50
	O. Arg. S. 17249 .	44	0.1	2.4	3.7	14.4	15.5	16.8	18.3	19.5	30.2	31.4	33.8	42 16.92	0.13	23.27	17 41 53.52	4.80
	B. A. C. 6039 . .	45	45.0	47.4	48.7	0.0	1.3	2.8	4.1	5.3	16.6	18.0	20.4	45 2.69	0.14	23.27	17 44 39.28	4.99
	Lalande 32706 .	46	32.3	34.5	35.6	45.9	47.0	48.3	49.3	50.3	0.6	1.8	3.8	47 48.13	0.12	23.27	17 47 24.74	4.50
	* — 28° 4′ . .	47	57.6	59.9	1.2	. .	. .	. .	. .	. .	28.1	29.3	31.7	50 14.63	0.14	23.27	17 49 51.22	4.85
	* — 28° 2′ . .	48	. .	. .	. .	13.0	14.4	15.6	17.2	18.2	. .	. .	. .	50 15.68	0.14	23.27	17 49 52.27	4.85
	* — 27° 52′ . .	49	. .	. .	. .	38.6	39.8	42.2	59.0	1.3	2.6	4.1	5.5	53 54.14	29.07	23.27	17 53 1.80	4.84
	* — 27° 49′ . .	50	41.5	43.8	45.0	56.0	57.2	58.4	59.8	1.0	11.9	13.0	15.5	54 58.46	— 0.14	—23.27	17 54 35.05	+ 4.84

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
June 26, 16.1	— 23.28	+ 0.005	+ 0.06	— 0.09

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
June 26	* − 24° 15′ . .	1	1.1	3.3	4.4	. .	. .	. .	. .	. .	30.4	31.7	33.9	56 17.47	− 0.13	−23.27	17 55 54.07	+ 4.72
Y.	* − 36° 37′ . .	2	. .	. .	. .	30.8	32.0	33.5	35.0	36.3	48.2	49.7	52.1	58 39.70	6.36	23.27	17 58 10.07	5.18
	μ Sagittarii . . .	3	. .	4.2	5.5	15.6	16.8	18.2	19.5	20.5	30.8	31.9	. .	6 18.11	0.12	23.27	18 5 54.72	4.61
	* − 17° 25′ . .	4	. .	21.6	22.9	32.7	33.8	35.2	36.4	37.6	47.6	48.6	. .	9 35.16	0.11	23.27	18 9 11.78	4.48
	* − 17° 27′ . .	5	. .	. .	. .	54.2	55.4	56.6	57.8	59.0	9.0	10.2	12.5	10 1.84	5.32	23.27	18 9 33.25	+ 4.48
	δ Ursæ Minoris .	6	. .	. .	. .	58.0	17.0	36.5	57.0	14.0	. .	. .	. .	15 36.50	0.42	23.27	. . . .	− 56.45
July 1	18 Bootis	†7	59.2	1.3	2.4	12.4	13.5	14.7	15.9	16.9	26.7	27.9	30.0	13 14.63	0.10	20.02	14 12 54.51	+ 4.39
	ε Bootis	8	17.9	20.3	21.5	32.4	33.6	34.9	36.2	37.3	48.2	49.5	51.8	39 34.87	0.11	20.02	14 39 14.74	3.83
	O. Arg. S. 13951 .	9	44.5	46.8	48.0	. .	. .	. .	. .	. .	13.7	14.9	17.2	42 0.85	0.09	20.02	14 41 40.74	4.83
	O. Arg. S. 13953 .	10	. .	. .	. .	1.1	2.3	3.6	4.9	6.0	. .	. .	. .	42 3.58	0.09	20.01	14 41 43.47	4.83
	O. Arg. S. 14039 .	11	37.4	39.6	40.7	51.7	52.9	54.2	55.6	56.7	7.6	8.8	11.0	46 54.20	0.09	20.01	14 46 34.10	4.88
	B. A. C. 4923 (1st *)	12	51.0	53.3	54.3	. .	. .	. .	. .	. .	19.6	20.9	23.0	50 7.02	0.09	20.01	14 49 46.92	4.56
	B. A. C. 4923 (2d *)	13	. .	. .	. .	5.7	6.9	8.1	9.4	10.4	. .	. .	. .	50 8.10	0.09	20.01	14 49 48.00	4.56
	Weisse (2) 1130 .	14	. .	. .	. .	3.0	4.4	7.2	26.6	29.4	31.0	32.8	34.3	53 21.09	33.90	20.01	14 52 27.18	3.18
	Weisse 1139 . .	15	. .	. .	. .	. .	. .	. .	41.6	44.3	45.8	47.8	49.3	53 45.76	43.63	20.01	14 52 42.12	3.18
	Lacaille 6218 . .	16	26.4	28.6	29.8	41.0	42.0	43.6	44.9	46.0	57.1	58.5	0.7	57 43.51	0.09	20.01	14 57 23.41	4.90
	* − 31° 59′ . .	17	26.7	29.5	30.6	41.9	43.0	44.5	45.9	47.4	58.6	59.9	2.2	1 44.56	0.09	20.01	15 1 24.46	4.95
	O. Arg. N. 15139 .	18	. .	. .	. .	33.9	35.4	37.1	39.0	40.5	. .	. .	. .	4 37.18	0.15	20.01	15 4 17.02	2.64
	Lalande 27803 .	19	24.9	27.4	28.6	40.4	41.8	43.2	44.7	46.0	57.8	59.0	1.7	8 43.23	0.13	20.01	15 8 23.09	3.23
	Lalande 27852 .	20	13.5	15.8	16.9	27.2	28.3	29.6	30.8	31.9	42.0	43.4	45.7	11 29.55	0.09	20.01	15 11 9.45	4.72
	O. Arg. S. 14487 .	21	32.0	34.5	35.7	46.8	48.0	49.4	50.7	52.0	3.0	4.3	6.7	14 49.37	0.09	20.01	15 14 29.27	4.91
	O. Arg. S. 14490 .	22	. .	. .	. .	18.5	19.7	22.0	39.4	41.8	43.0	44.7	45.8	15 34.36	29.59	20.01	15 14 44.76	4.90
	* − 32° 3′ . . .	23	. .	. .	. .	17.0	18.8	21.2	38.4	41.0	42.6	44.2	45.5	20 33.59	30.27	20.01	15 19 43.31	4.95
	Lalande 28213 .	24	8.8	11.1	12.3	22.7	23.8	25.0	26.2	27.3	37.7	39.0	41.2	23 25.01	0.09	20.00	15 23 4.92	4.72
	* − 31° 59′ . .	25	6.0	8.4	9.8	21.3	22.3	23.6	24.9	26.1	37.6	38.9	41.4	27 23.66	0.09	20.00	15 27 3.57	4.94
	* − 22° 29′ . .	26	. .	. .	. .	2.7	3.9	6.3	22.4	24.4	25.8	27.2	28.5	30 17.65	27.77	20.00	15 29 29.88	4.73
	* − 22° 28′ . .	27	5.2	7.5	8.6	19.0	20.0	21.4	22.7	23.7	34.2	35.4	37.5	32 21.38	0.09	20.00	15 32 1.29	4.73
	Lacaille 6499 . .	28	55.3	57.8	59.0	10.2	11.4	12.7	14.1	15.4	26.7	28.0	30.4	36 12.82	0.09	20.00	15 35 52.73	4.92
	Lacaille 6522 . .	29	. .	. .	. .	43.5	44.8	46.2	47.7	48.9	1.1	2.6	5.3	39 52.51	6.35	20.00	15 39 26.16	5.07
	μ Serpentis . . .	30	51.2	53.2	54.3	3.8	4.9	6.1	7.3	8.4	18.0	19.0	21.2	43 6.13	0.09	20.00	15 42 46.04	4.19
	* − 10° 41′ . .	31	6.2	8.1	9.3	19.0	20.2	21.4	22.6	23.6	33.3	34.5	36.6	47 21.35	0.09	20.00	15 47 1.26	4.42
	O. Arg. S. 15061 .	32	17.4	19.7	20.7	30.8	31.9	33.1	34.3	35.4	45.4	46.5	48.8	50 33.09	0.09	20.00	15 50 13.00	4.56
	Weisse 1011 . .	33	25.9	28.0	29.0	38.9	40.0	41.2	42.5	43.5	53.3	54.4	56.6	54 41.21	0.09	19.99	15 54 21.13	4.41
	Weisse 1019 . .	34	. .	. .	. .	5.0	6.0	7.2	8.3	9.3	19.2	20.3	22.5	55 12.22	5.16	19.99	15 54 47.07	4.40
	β Scorpii . . .	35	52.5	54.7	55.7	5.9	7.0	8.2	9.5	10.6	20.9	21.9	24.3	58 8.29	0.09	19.99	15 57 48.21	4.66
	B. A. C. 5357 . .	36	18.5	21.2	22.6	35.3	36.6	38.1	39.7	41.0	53.5	54.9	57.6	1 38.09	0.10	19.99	16 1 18.00	5.16
	* − 17° 51′ . .	37	32.3	34.5	35.6	45.6	46.7	48.0	49.3	50.4	0.5	1.6	3.8	4 48.03	0.09	19.99	16 4 27.95	4.56
	O. Arg. S. 15438 .	38	54.6	56.7	57.8	8.5	9.5	10.9	12.2	13.3	23.9	25.1	27.4	8 10.90	0.09	19.99	16 7 50.82	4.74
	B. A. C. 5465 . .	39	29.2	31.6	32.8	43.5	44.6	46.0	47.4	48.5	59.3	0.5	2.9	16 46.03	0.09	19.99	16 16 25.95	4.79
	O. Arg. S. 15641 .	40	7.9	10.3	11.4	22.5	23.7	24.9	26.5	27.7	44.3	45.4	47.9	19 24.77	0.09	19.99	16 19 4.69	4.86
	O. Arg. S. 15643 .	41	. .	. .	. .	. .	. .	. .	4.7	7.2	8.6	10.0	11.4	20 8.38	37.81	19.99	16 19 10.58	4.86
	Weisse (2) 788 .	42	. .	. .	. .	. .	. .	. .	31.3	33.8	35.2	37.0	38.4	27 35.14	39.79	19.98	16 26 35.37	2.54
	Lacaille 6910 . .	43	19.6	22.4	23.6	35.7	36.9	38.4	39.9	41.0	53.2	54.4	57.3	30 38.40	0.10	19.98	16 30 18.32	5.09
	Lalande 30327 .	44	. .	. .	. .	6.7	8.0	9.6	11.0	12.2	24.5	26.0	28.4	33 15.80	6.42	19.98	16 32 49.40	2.22
	* − 30° 1′ . . .	45	13.4	15.6	16.8	28.0	29.3	30.6	32.0	33.1	44.2	45.4	47.6	42 30.55	0.09	19.98	16 42 10.48	4.88
	* − 30° 6′ . . .	46	29.8	32.4	33.6	44.8	46.0	47.3	48.6	50.0	0.9	2.4	4.8	43 47.33	0.09	19.98	16 43 27.26	4.88
	O. Arg. S. 16046 .	47	48.6	51.0	52.3	3.4	4.5	5.9	7.3	8.5	19.6	20.9	23.3	45 5.94	0.09	19.98	16 44 45.87	4.88
	O. Arg. S. 16060 .	48	. .	. .	. .	39.3	40.5	41.8	43.1	44.3	55.4	56.6	59.2	45 47.52	5.84	19.98	16 45 21.70	4.88
	O. Arg. S. 16121 .	49	. .	. .	. .	49.4	50.7	53.0	10.0	12.5	13.9	15.6	16.9	49 5.25	29.73	19.98	16 48 15.54	4.89
	O. Arg. S. 16184 .	50	4.8	7.0	8.3	19.5	20.6	21.9	23.2	24.4	35.6	36.8	39.3	52 21.95	− 0.09	−19.98	16 52 1.88	+ 4.88

July 1. Observed with clamp west.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
July 1, 16.7	− 19.98	+ 0.018	− 0.02	− 0.09

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
July 1	Lacaille 7133	1	..	..	..	23.3	24.7	26.3	27.9	29.0	41.8	43.3	46.0	59 32.79	− 6.68	−19.97	16 59 6.14	+ 5.26
Y.	Lacaille 7168	2	56.3	58.8	0.1	12.4	13.6	15.3	16.8	18.0	30.4	31.7	34.5	5 15.26	0.10	19.97	17 4 55.19	5.16
	Lacaille 7174	3	25.3	27.9	29.1	41.4	42.7	44.3	45.8	47.0	59.4	0.7	3.3	6 44.26	0.10	19.97	17 6 24.19	5.16
	Lacaille 7207	4	..	..	..	24.6	25.9	27.5	29.0	30.2	42.5	43.9	46.5	9 33.76	6.41	19.97	17 9 7.38	5.16
	* − 27° 38′	5	..	..	..	11.2	12.3	13.6	14.9	16.0	26.9	28.3	30.5	12 19.21	5.71	19.97	17 11 53.53	4.80
	Lacaille 7244	6	..	..	..	..	..	..	45.8	48.4	49.9	51.6	52.9	14 49.72	40.73	19.97	17 13 49.02	5.08
	* − 20° 40′	7	6.7	8.9	10.0	20.2	21.2	22.6	23.7	24.9	35.3	36.6	38.6	18 22.61	0.09	19.97	17 18 2.55	4.57
	* − 40° 57′	8	28.7	31.2	32.6	45.4	46.7	48.4	49.9	51.4	4.0	5.5	8.4	22 48.38	0.10	19.97	17 22 28.31	5.25
	* − 29° 35′	9	43.9	46.4	47.6	58.7	59.9	1.2	2.6	3.7	14.7	16.0	18.4	25 1.19	0.09	19.97	17 24 41.13	4.86
	* − 37° 22′	10	..	..	..	29.6	30.8	33.5	51.9	54.5	55.9	58.0	59.5	28 46.71	32.27	19.97	17 27 54.47	5.14
	* − 35° 5′	11	54.8	57.0	58.2	10.2	11.5	13.0	14.4	15.8	27.3	28.8	31.3	32 12.94	0.10	19.97	17 31 52.87	5.06
	* − 35° 14′	12	40.8	43.3	44.5	56.3	57.6	59.0	0.5	1.7	13.6	14.8	17.5	34 59.05	0.10	19.96	17 34 38.99	5.07
	μ Herculis	13	37.5	38.5	39.7	41.2	42.3	..	13.5	15.9	17.3	18.8	20.0	41 58.47	18.72	19.96	17 41 19.79	2.47
	Lalande 32706	14	29.0	31.2	32.2	42.5	43.6	44.8	46.0	47.0	57.2	58.4	0.6	47 44.77	0.09	19.96	17 47 24.72	4.47
	* − 28° 5′	15	..	..	..	8.8	10.0	11.4	12.8	13.9	..	..	..	50 11.38	0.09	19.96	17 49 51.33	4.81
	* − 28° 3′	16	55.3	57.6	58.8	..	..	..	..	..	25.8	27.0	29.4	50 12.32	0.09	19.96	17 49 52.27	4.81
	* − 27° 52′	17	..	..	..	..	..	..	55.6	58.0	59.4	0.9	2.3	53 59.24	37.39	19.96	17 53 1.89	4.81
	* − 27° 49′	18	38.2	40.5	41.7	52.6	53.8	55.1	56.5	57.6	8.5	9.8	12.0	54 55.12	0.09	19.96	17 54 35.07	4.80
	* − 36° 38′	19	..	..	..	..	..	..	7.5	10.0	11.5	13.3	14.7	59 11.40	41.17	19.96	17 58 10.27	5.13
	B. A. C. 6175	20	4.7	7.3	8.5	19.8	21.0	22.5	23.9	25.0	36.5	37.8	40.3	7 22.48	0.09	19.95	18 7 2.44	4.95
	* − 17° 25′	21	37.6	39.7	40.8	51.0	52.1	53.4	54.5	55.6	5.7	6.9	9.0	9 53.30	0.09	19.95	18 9 33.26	4.43
	* − 17° 46′	22	..	..	..	9.5	10.5	11.8	13.0	14.1	..	..	..	12 11.78	0.09	19.95	18 11 51.74	4.45
	Lalande 33694	23	..	..	..	28.3	29.3	30.5	31.7	32.9	..	..	..	12 30.54	0.10	19.95	18 12 10.49	+ 4.44
	δ Ursæ Minoris	24	..	..	..	56.0	14.5	34.0	55.5	11.5	..	..	..	15 34.30	1.92	19.95	....	− 56.06
	* − 29° 35′	25	45.5	47.9	49.0	0.2	1.4	2.7	4.0	5.2	16.4	17.6	20.0	19 2.72	0.09	19.95	18 18 42.68	+ 4.87
	* − 35° 25′	26	9.1	11.6	13.0	24.9	26.0	27.5	28.9	30.3	42.0	43.4	45.9	22 27.51	0.10	19.95	18 22 7.46	5.10
	1 Aquilæ	27	8.7	10.8	11.9	21.6	22.6	23.9	25.0	26.0	35.9	36.9	39.0	28 23.85	0.09	19.95	18 28 3.81	4.09
3	β Libræ	28	0.2	2.3	3.4	13.0	14.1	15.3	16.5	17.6	27.2	28.4	30.6	10 15.33	0.09	19.96	....	4.51
	* + 37° 40′	29	..	..	..	57.0	58.5	1.2	19.8	22.3	23.8	25.7	27.2	22 14.44	32.49	18.96	15 21 22.99	3.00
	Weisse (2) 571	30	50.9	53.4	54.8	7.0	8.4	10.0	11.5	12.7	25.2	26.5	29.0	26 9.95	0.18	18.96	15 25 50.81	2.55
	41 Libræ	31	24.2	26.4	27.4	37.7	38.7	39.9	41.2	42.2	52.4	53.7	55.8	31 39.96	0.06	18.96	15 31 20.94	4.66
	Lacaille 6499	32	54.3	56.5	57.9	9.0	10.5	11.8	13.0	14.3	25.5	26.8	29.2	36 11.71	0.05	18.96	15 35 52.70	4.94
	O. Arg. S. 14882	33	17.8	20.3	21.5	31.7	32.7	33.9	35.1	36.2	46.5	47.7	49.9	40 33.94	0.06	18.96	15 40 14.92	4.65
	O. Arg. S. 14909	34	29.0	31.2	32.2	42.4	43.6	44.8	46.0	47.0	57.4	58.6	0.7	41 44.81	0.06	18.96	15 41 25.79	4.65
	* − 14° 23′	35	..	..	..	44.8	45.9	47.9	3.3	5.3	6.8	8.2	9.4	44 58.95	26.48	18.95	15 44 13.52	4.53
	Lacaille 6590	36	34.8	37.5	38.7	50.5	51.7	53.3	54.7	56.0	7.9	9.2	11.7	48 53.27	0.05	18.95	15 48 34.27	5.04
	B. A. C. 5299	37	40.4	42.8	43.9	55.2	56.5	57.8	59.2	0.4	11.6	12.8	15.3	51 57.81	0.05	18.95	15 51 38.81	4.92
	Weisse 1011	38	25.0	27.0	28.1	37.9	39.0	40.1	41.4	42.4	52.3	53.3	55.4	54 40.17	0.08	18.95	15 54 21.14	4.42
	Weisse 1019	39	..	..	..	3.9	4.9	6.1	7.4	8.4	18.2	19.3	21.4	55 11.20	5.15	18.95	15 54 47.10	4.41
	* − 11° 33′	40	24.0	26.2	27.3	36.9	38.0	39.2	40.5	41.5	51.4	52.4	54.6	59 39.27	0.08	18.95	15 59 20.24	4.42
	O. Arg. S. 15302	41	..	..	..	16.3	17.4	18.7	19.8	20.9	..	..	..	2 18.62	0.07	18.95	16 1 59.60	4.55
	O. Arg. S. 15403	42	12.8	15.3	16.3	26.7	27.9	29.2	30.4	31.5	42.1	43.2	45.4	6 29.16	0.06	18.95	16 6 10.15	4.72
	B. A. C. 5418	43	35.6	38.0	39.0	49.7	50.7	52.1	53.4	54.4	5.0	6.2	8.5	8 52.05	0.06	18.95	16 8 33.04	4.73
	19 Scorpii	44	47.0	49.3	50.4	0.8	2.0	3.3	4.7	5.7	16.2	17.4	19.7	13 3.32	0.06	18.95	16 12 44.31	4.72
	Weisse (2) 457	45	48.2	50.7	52.2	4.8	6.3	7.8	9.7	10.9	23.5	25.0	27.7	16 7.89	0.19	18.94	16 15 48.76	2.20
	Weisse (2) 788	46	36.5	38.9	40.1	51.6	52.8	54.3	55.8	56.9	8.5	9.8	12.5	26 54.34	0.17	18.94	16 26 35.23	2.55
	* + 38° 30′	47	12.2	14.9	16.4	28.6	29.8	31.3	32.8	34.0	46.5	47.9	50.6	35 31.36	0.18	18.94	16 35 12.26	2.16
	Lalande 30745	48	50.0	52.6	53.8	6.0	7.4	9.0	10.5	11.7	24.0	25.3	28.2	47 8.95	0.18	18.94	16 46 49.83	2.09
	κ Ophiuchi	49	31.2	33.3	34.5	44.2	45.3	46.6	47.7	48.7	58.4	59.6	1.7	51 46.45	0.11	18.94	....	+ 3.55
	ε Ursæ Minoris	50	11.0	25.7	33.3	45.3	53.3	1.4	10.7	17.4	29.9	38.0	53.7	0 1.79	− 1.43	−18.93	....	− 18.60

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
July 3, 16.0	− 18.95	+ 0.018	− 0.09	− 0.09

r.
July 4. Image west 0.83. Clamp west.
Image west 0.62. Clamp east.

r.
After change of level. Image west 0.30. Clamp east.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
July 17	α Coronæ Borealis .	1	7.0	9.4	10.7	21.6	22.6	24.0	25.4	26.5	37.4	38.6	40.8	29 24.00	− 0.09	−16.35	15 29 7.56	+ 3.58
Y.	Lalande 28641 .	2	. .	. .	. .	6.7	7.9	10.6	29.9	32.9	34.5	36.0	37.6	36 24.51	− 32.89	16.35	15 35 35.27	3.04
	B. A. C. 5215 . .	3	18.9	21.5	22.6	33.6	34.6	36.0	37.5	38.6	49.5	50.7	53.0	40 36.05	+ 0.09	16.35	15 40 19.79	4.99
	A Scorpii, (1st *) .	4	43 3	45.5	46.8	57.5	58.4	59.8	1.1	2.1	13.0	14.0	16.3	45 59.80	+ 0.08	16.35	15 45 43.53	4.89
	A Scorpii, (2d *) .	5	20.8	21.8	23.6	24.8	27.3	. .	33.3	36.0	37.2	38.7	40.0	46 0.35	− 0.30	16.35	15 45 43.70	4.89
	48 Libræ	6	50.9	53.0	54.0	4.0	5.0	6.3	7.6	8.6	18.5	19.8	21.9	51 6.33	+ 0.04	16.35	15 50 50.02	4.60
	* − 24° 18′ . .	7	21.0	23.4	24.7	35.3	36.5	37.6	38.7	39.9	50.6	51.7	54.0	55 37.58	0.08	16.35	15 55 21.31	4.85
	* − 38° 46′ . .	8	43.7	46.4	47.7	0.2	1.4	2.9	4.3	5.6	17.9	19.4	22.1	0 2.87	+ 0.15	16.35	15 59 46.67	5.23
	Lacaille 6695 . .	9	17.4	18.7	20.6	22.3	24.8	. .	42.0	45.0	46.5	48.2	49.7	0 3.52	− 0.29	16.35	15 59 46.88	+ 5.23
	* + 70° 36′ . .	10	51.7	57.8	1.3	. .	. .	. .	. .	. .	12.6	15.8	22.3	5 36.92	0.51	16.35	16 5 20.06	− 2.15
	* + 70° 36′ . .	11	. .	. .	. .	39.6	42.9	46.0	49.9	52.9	. .	. .	. .	5 46.26	0.51	16.35	16 5 29.40	− 2.15
	25 Herculis . . .	12	41.2	44.0	45.4	57.5	58.7	0.4	1.7	3.3	15.3	16.7	19.2	21 0.31	− 0.14	16.36	16 20 43.81	+ 2.52
	ζ Ophiuchi . . .	13	56.8	58.9	0.0	9.8	10.7	12.0	13.2	14.2	24.0	25.2	27.2	30.12.00	+ 0.03	16.36	16 29 55.67	4.35
	Weisse (2) 1075 .	14	. .	36.0	37.6	49.9	51.2	52.8	54.3	55.6	8.0	9.4	. .	34 52.76	− 0.15	16.36	16 34 36.25	2.32
	Lacaille 6970 . .	15	46.0	48.8	50.2	2.6	3.8	5.5	6.8	8.2	20.7	22.2	24.8	38 5.42	+ 0.15	16.36	16 37 49.21	5.25
	* − 26° 38′ . .	16	42.9	45.3	46.6	57.3	58.4	59.8	1.1	2.3	13.0	14.2	16.5	43 59.76	+ 0.09	16.36	16 43 43.49	4.83
	* − 26° 42′ . .	17	. .	. .	. .	35.0	36.0	38 4	55.5	58.3	59.7	1.0	2.4	44 50.79	− 28.93	16.36	16 44 5.50	4.83
	O. Arg. S. 16121 .	18	. .	. .	. .	29.1	30.5	31.7	33.0	34.4	45.4	46.6	49.0	48 37.46	5.66	16.37	16 48 15.43	4.94
	* + 38° 23′ . .	19	45.7	48.4	49.8	2.0	3.4	4.9	6.5	7.7	20.0	21.4	24.2	53 4.91	− 0.15	16.37	16 52 48.39	2.16
	O. Arg. S. 16511 .	20	4.5	6.6	7.8	18.2	19.3	20.5	21.7	22.9	33.2	34.4	36.5	7 20.51	+ 0.07	16.37	17 7 4.21	4.60
	Lacaille 7244 . .	21	46.3	49.3	50.4	2.5	3.7	5.2	6.5	7.7	. .	. .	. .	13 58.95	+ 6.26	16.37	17 13 48.84	5.09
	Weisse (2) 554 .	22	35.0	37.7	39.3	51.7	52.9	54.3	55.8	57.2	9.5	10.9	13.5	19 54.35	− 0.15	16.37	17 19 37.83	1.92
	B. A. C. 5927 . .	23	56.5	59.0	0.3	11.5	12.6	14.0	15.5	16.7	28.0	29.3	31.6	26 14.09	0.10	16.37	17 25 57.62	2.41
	O. Arg. S. 16978 .	24	. .	. .	. .	2.9	4.0	6.0	22.3	24.7	26.1	27.3	28.6	29 17.74	27.26	16.38	17 28 34.10	4.45
	μ Herculis . . .	25	19.3	21.6	22.9	33.8	34.8	36.2	37.6	38.8	49.7	50.8	53.2	41 36.25	0.09	16.38	17 41 19.78	2.51
	* + 37° 44′ . .	26	25.6	28.2	29.7	41.8	43.0	44.6	46.2	47.5	59.7	0.9	3.7	46 44.63	0.14	16.38	17 46 28.11	1.83
	θ Herculis . . .	27	43.4	46.0	47.6	59.5	0.7	2.3	3.8	5.0	17.2	18.6	21.2	52 2.30	0.14	16.38	17 51 45.78	+ 1.81
	35 Draconis . . .	28	. .	. .	. .	33.2	37.4	43.0	48.4	52.8	. .	. .	. .	55 42.96	0.78	16.38	17 55 25.80	− 9.75
	100 Herculis, (1st *) .	29	32.3	34.6	35.8	46.5	47.6	49.0	50.3	51.4	2.2	3.4	5.9	2 49.00	0.09	16.38	18 2 32.53	+ 2.55
	100 Herculis, (2d *) .	30	9.3	10.6	12.1	13.5	15.9	. .	22.7	25.4	26.7	28.1	29.4	2 49.37	0.52	16.38	18 2 32.47	2.55
	* + 37° 41′ . .	31	10.9	13.6	15.0	27.4	28.6	30.1	31.7	32.9	45.2	46.4	49.1	7 30.08	0.14	16.39	18 7 13.55	+ 1.72
	δ Ursæ Minoris .	32	. .	. .	. .	52.0	8.0	29.0	50.0	7.0	. .	. .	. .	15 29.20	− 2.97	16.39	. . . .	− 53.46
	B. A. C. 6249 . .	33	. .	15.7	17.0	28.2	29.4	30.8	32.2	33.4	44.7	45.9	. .	18 30.81	+ 0.10	16.39	18 18 14.52	+ 4.82
	* − 35° 25′ . .	†34	5.4	8.0	9.5	21.2	22.3	23.7	25.2	26.6	38.3	39.7	42.3	22 23.84	0.13	16.39	18 22 7.58	5.00
	ε Serpentis . . .	35	11.7	13.8	14.9	24.6	25.6	26.8	28.0	29.0	38.7	29.7	41.8	25 26.78	0.00	16.39	18 25 10.39	3.75
	B. A. C. 6331 . .	36	3.7	6.0	7.2	17.9	19.0	20.2	21.6	22.6	33.4	34.6	36.9	29 20.28	0.09	16.39	18 29 3.98	4.63
	* − 31° 36′ . .	37	26.2	28.7	30.0	41.0	42.2	43.7	45.2	46.4	57.6	58.9	1.4	33 43.75	0.10	16.39	18 33 27.46	4.84
	Lacaille 7843 . .	38	49.0	51.6	52.9	4.5	5.7	7.1	8.6	9.8	21.4	22.6	25.1	38 7.12	+ 0.12	16.39	18 37 50.85	4.92
	β Lyræ	39	13.5	15.9	17.4	28.8	30.0	31.4	32.8	34.0	45.5	46.8	49.3	45 31.40	− 0.11	16.39	18 45 14.90	1.96
Aug. 7	κ Ophiuchi . . .	40	14.0	16.2	17.3	27.0	28.0	29.3	30.5	31.6	41.4	42.5	44.6	51 29.31	0.03	2.21	. . . .	3.82
	Weisse (2) 1735 .	41	41.3	43.7	44.7	55.6	56.6	58.0	59.3	0.5	11.3	12.4	14.8	56 58.02	− 0.09	2.21	16 56 55.72	3.16
	O. Arg. S. 16450 .	42	12.7	15.0	16.4	26.9	27.9	29.3	30.6	31.7	42.4	43.5	45.9	4 29.30	+ 0.09	2.21	17 4 27.18	4.92
	B. A. C. 5809 . .	43	12.8	15.2	16.4	27.7	28.7	30.2	31.4	32.5	43.8	45.0	47.4	7 30.10	0.10	2.21	17 7 27.99	5.09
	B. A. C. 5839 . .	44	0.9	3.1	4.4	14.4	15.5	16.7	18.0	19.1	29.0	30.2	32.5	12 16.71	0.06	2.20	17 12 14.57	4.65
	Lalande 31543 .	45	43.0	45.3	46.5	56.5	57.6	58.9	0.0	1.2	11.3	12.4	14.6	14 58.85	+ 0.06	2.20	17 14 56.71	4.65
	B. A. C. 5869 . .	46	. .	. .	. .	7.0	8.2	9.6	10.8	12.3	23.3	24.5	26.9	17 15.32	− 5.62	2.20	17 17 7.50	5.04
	Lalande 31790 .	47	. .	. .	. .	37.9	39.1	40.7	42.2	43.6	55.6	56.8	59.5	20 46.92	6.40	2.20	17 20 38.32	2.32
	B. A. C. 5927 . .	48	42.0	44.6	45.8	57.0	58.3	59.6	1.0	2.3	13.5	14.7	17.2	25 59.64	0.10	2.20	17 25 57.34	2.66
	Weisse (2) 831 .	49	33.0	35.6	37.0	48.8	50.0	51.6	53.0	54.4	6.2	7.6	10.2	27 51.58	0.13	2.20	17 27 49.25	2.37
	Lalande 32165 .	50	55.6	58.2	59.6	11.7	12.9	14.4	16.0	17.3	29.5	30.7	33.4	31 14.48	− 0.14	− 2.20	17 31 12.14	+ 2.23

34. Faint.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Jnly 17, 17.1	− 16.37	− 0.016	− 0.18	0.00

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.											CORRECTIONS.			Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Aug. 7	Lalande 32322	1	55.5	58.0	59.4	11.6	12.8	14.4	15.9	17.3	29.4	30.7	33.2	35 14.38	− 0.14	− 2.20	17 35 12.04	+ 2.20
Y.	* + 36° 9′	2	6.1	8.7	10.0	22.0	23.3	24.7	26.3	27.6	39.5	40.8	43.3	43 24.75	0.13	2.19	17 43 22.43	2.22
	* + 36° 7′	3	46.6	48.0	49.7	51.2	53.9	. .	8.2	11.2	12.8	14.4	16.0	43 31.20	0.56	2.19	17 43 28.45	2.22
	* + 37° 44′	4	. .	. .	. .	27.4	28.6	30.2	31.7	33.0	45.1	46.5	49.0	46 36.44	6.43	2.19	17 46 27.82	2.09
	θ Herculis	5	29.2	31.8	33.1	45.0	46.4	47.9	49.5	50.7	2.8	4.0	6.7	51 47.92	0.14	2.19	17 51 45.59	2.08
	* + 36° 17′	6	. .	. .	. .	7.8	9.0	10.5	11.9	13.3	25.2	26.6	29.1	54 16.68	− 6.30	2.19	17 54 8.19	2.14
	* − 27° 40	7	55.4	57.9	59.0	9.9	11.0	12.4	13.7	14.7	25.7	26.9	29.3	0 12.35	+ 0.09	2.19	18 0 10.25	4.84
	* − 17° 28′	†8	52.0	54.2	55.5	5.4	6.6	7.8	9.0	10.2	20.3	21.5	23.7	5 7.84	0.06	2.19	18 5 5.71	4.46
	* − 27° 28′	9	53.9	56.0	57.4	8.3	9.4	10.7	12.0	13.3	24.0	25.2	27.5	8 10.70	0.09	2.18	18 8 8.61	4.50
	* − 17° 47′	10	38.0	40.2	41.3	51.4	52.5	53.7	55.0	56.0	6.2	7.4	9.5	11 53.75	+ 0.06	2.18	18 11 51.63	4.45
	Lalande 33694	11	. .	. .	. .	25.0	26.3	28.3	44.4	47.0	48.3	49.6	50.9	12 39.98	− 27.26	2.18	18 12 10.54	4.45
	O. Arg. S. 18074	12	. .	. .	. .	59.2	0.3	1.5	2.6	3.7	13.8	15.0	17.0	13 6.64	5.16	2.18	18 12 59.30	4.44
	δ Ursæ Minoris	13	. .	. .	. .	. .	. .	. .	. .	. .	30.0	48.5	23.0	18 53.83	− 3 47.20	2.18	. . . .	48.11
	* + 35° 59′	14	4.3	6.8	8.2	20.0	21.4	22.8	24.3	25.6	. .	. .	. .	22 16.68	+ 6.28	2.18	18 22 20.52	1.99
	* + 35° 57′	15	. .	. .	. .	42.4	43.7	46.3	5.2	8.1	9.7	11.4	12.8	22 59.95	− 32.26	2.18	18 22 25.51	1.99
	O. Arg. S. 18413	16	12.0	14.4	15.6	26.0	27.0	28.3	29.6	30.7	41.1	42.2	44.5	27 28.31	+ 0.08	2.18	18 27 26.21	4.55
	* − 32° 9′	17	37.0	39.7	40.8	52.3	53.4	54.8	56.3	57.6	9.0	10.2	12.6	30 54.88	+ 0.11	2.18	18 30 52.81	4.91
	O. Arg. S. 18525	18	. .	. .	. .	57.9	58.9	1.2	18.3	20.8	22.3	24.7	26.0	33 13.76	− 28.64	2.18	18 32 42.94	4.64
	O. Arg. S. 18536	19	. .	. .	. .	32.0	33.2	34.4	35.7	37.0	47.5	48.7	51.0	33 39.94	− 5.41	2.18	18 33 32.35	4.64
	Lacaille 7843	20	34.9	37.3	38.7	50.3	51.6	52.9	54.3	55.7	7.3	8.7	11.1	37 52.98	+ 0.12	2.17	18 37 50.93	4.96
	O.Arg.S.18747(1st*)	21	49.3	50.3	51.8	53.2	55.5	. .	0.2	2.8	4.2	5.6	7.0	43 27.99	− 0.30	2.17	18 43 25.52	4.50
	O.Arg.S.18747(2d*)	22	. .	. .	. .	25.9	26.9	28.2	29.4	30.5	. .	. .	. .	43 28.18	+ 0.08	2.17	18 43 26.09	4.50
	31 Sagittarii	23	. .	. .	. .	30.0	31.1	33.4	49.8	52.5	53.8	55.3	56.4	44 45.36	− 27.99	2.17	18 44 15.20	4.50
	* + 35° 38′	24	57.7	0.3	1.6	13.5	14.7	16.2	17.6	18.8	30.8	32.2	34.6	51 16.18	− 0.13	2.17	18 51 13.88	1.89
	Weisse 1480	25	31.2	33.4	34.6	44.3	45.3	46.5	47.7	48.7	58.5	59.6	1.6	58 46.49	+ 0.03	2.17	18 58 44.35	4.00
	* − 21° 38′	26	37.7	40.0	41.3	. .	. .	. .	. .	. .	6.7	7.8	10.1	1 53.93	0.08	2.17	19 1 51.84	4.43
	O. Arg. S. 19155	27	. .	. .	. .	53.4	54.4	55.7	56.9	58.0	. .	. .	. .	1 55.68	+ 0.08	2.17	19 1 53.59	4.43
	Lalande 36051	28	56.6	59.2	0.7	12.8	14.0	15.6	17.0	18.4	30.6	31.8	34.4	5 15.55	− 0.14	2.16	19 5 13.25	1.69
	Weisse 187	29	. .	. .	. .	21.6	22.6	24.6	40.0	42.6	43.8	45.0	46.3	9 35.81	26.29	2.16	19 9 7.36	3.06
	* + 36° 29′	30	. .	. .	. .	. .	. .	. .	46.2	49.3	50.9	52.5	53.9	15 50.56	41.97	2.16	19 15 6.43	1.75
	δ Aquilæ	31	. .	. .	. .	7.0	8.0	10.2	25.5	27.9	29.3	30.5	31.6	19 21.25	− 26.05	2.16	. . . .	3.54
	O. Arg. S. 19748	32	. .	13.6	14.7	25.0	26.0	27.3	28.6	29.8	40.0	41.0	. .	28 27.33	+ 0.07	2.16	19 28 25.24	4.29
	O. Arg. S. 19902	33	8.0	10.5	11.5	22.5	23.5	24.8	26.0	27.3	38.2	39.4	41.8	36 24.86	+ 0.09	2.15	19 36 22.80	4.50
	Weisse 1060	34	. .	5.7	6.8	16.6	17.7	18.9	20.0	21.2	30.9	32.0	. .	42 18.87	− 0.03	2.15	19 42 16.69	3.16
	O. Arg. S. 20049	35	53.2	55.5	56.8	7.6	8.7	10.0	11.4	12.5	23.4	24.6	26.8	46 10.05	+ 0.09	2.15	19 46 7.99	4.48
	Lalande 38037	36	4.4	5.7	7.0	8.7	9.8	. .	33.3	36.2	37.7	39.3	40.7	50 22.28	− 20.54	2.15	19 49 59.59	1.84
	Lalande 38202	†37	. .	. .	. .	51.0	52.3	53.8	55.3	56.7	8.8	10.1	12.7	54 0.09	6.43	2.15	19 53 51.51	1.60
	* + 36° 44′	38	. .	. .	. .	. .	. .	. .	48.4	51.4	53.0	54.6	56.0	56 52.68	42.12	2.15	19 56 8.41	1.65
	* + 36° 44′	39	. .	. .	. .	. .	. .	. .	7.0	10.0	11.6	13.2	14.7	57 11.30	42.12	2.15	19 56 27.03	1.65
	* + 35° 34′	40	14.1	16.7	18.0	29.9	31.2	32.7	34.0	35.4	47.1	48.6	51.0	1 32.61	0.13	2.14	20 1 30.34	1.77
	α^2 Capricorni	41	46.3	47.3	48.4	49.6	50.7	. .	19.4	22.0	23.3	24.6	25.8	11 5.74	17.22	2.14	. . . .	3.97
12	κ Ophiuchi	42	13.9	16.0	17.2	26.8	27.8	29.0	30.3	31.3	41.2	42.2	44.3	51 29.09	0.02	2.03	16 51 27.04	3.88
	Lacaille 7123	43	. .	. .	. .	26.7	28.0	29.7	31.0	32.4	44.4	45.8	48.4	57 35.80	6.14	2.02	16 57 27.64	5.47
	* − 37° 8′	44	. .	. .	. .	. .	. .	. .	15.4	18.7	20.3	21.8	23.5	59 19.94	− 42.11	2.02	16 58 35.81	5.47
	O. Arg. S. 16503	45	50.0	52.5	53.7	4.8	6.0	7.4	8.7	9.9	21.0	22.4	24.5	7 7.35	+ 0.08	2.02	17 7 5.41	5.16
	B. A. C. 5809	46	. .	. .	. .	43.8	44.8	47.2	4.8	7.6	9.2	10.5	11.9	7 59.98	− 29.97	2.02	17 7 27.99	5.16
	O. Arg. S. 16586	47	44.6	47.0	48.4	58.9	59.8	1.1	2.3	3.5	14.0	15.2	17.3	11 1.10	+ 0.05	2.01	17 10 59.14	4.88
	* − 35° 13′	48	. .	. .	. .	17.7	18.8	21.3	40.0	43.0	44.6	46.0	47.5	14 34.86	− 31.73	2.01	17 14 1.12	5.34
	* − 35° 15′	49	. .	. .	. .	4.2	5.3	8.0	26.7	29.6	31.0	32.7	34.3	15 21.48	− 31.75	2.01	17 14 47.72	5.34
	B. A. C. 5869	50	52.0	54.5	55.9	6.8	8.0	9.3	10.7	11.8	23.1	24.2	26.6	17 9.35	+ 0.07	− 2.01	17 17 7.41	+ 5.11

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Aug. 7, 18.8	− 2.17	+ 0.021	− 0.17	0.00

8. Another star preceding.
37. First and southward of close double.

r.

August 9. Image west 0.32. Clamp east.
Image west 0.33. Clamp west.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Aug. 12	* + 37° 49′	1	43.8	46.4	47.9	0.0	1.3	2.9	4.3	5.8	17.9	19.3	21.9	21 2.86	− 0.10	− 2.01	17 21 0.75	+ 2.38
Y.	Weisse (2) 831	2	32.7	35.4	36.8	48.6	49.8	51.3	52.7	54.0	5.9	7.3	9.8	27 51.30	0.10	2.00	17 27 49.20	2.45
	Lalande 32165	3	55.2	57.8	59.1	11.4	12.6	14.0	15.5	16.8	29.1	30.3	32.9	31 14.06	− 0.10	2.00	17 31 11.96	2.32
	* − 34° 16′	4	34.5	36.8	38.2	50.0	51.0	52.6	53.9	55.3	6.8	8.2	10.7	33 52.55	+ 0.09	2.00	17 33 50.64	5.24
	* − 34° 24′	5	46.9	49.6	51.0	2.7	3.8	5.3	6.7	8.0	19.7	20.7	23.4	35 5.25	0.09	2.00	17 35 3.34	5.24
	Lacaille 7433	6	9.7	12.4	13.9	26.0	27.3	28.8	30.4	31.6	. .	. .	. .	39 22.51	6.42	2.00	17 39 26.93	5.38
	* − 38° 5′	7	39.7	42.4	43.6	55.9	57.0	58.6	0.1	1.4	13.9	15.2	17.9	39 58.70	0.10	2.00	17 39 56.80	5.38
	* + 36° 35′	†8	6.6	9.4	10.7	. .	. .	. .	. .	. .	. .	. .	. .	43 8.90	16.61	2.00	17 43 23.51	2.27
	O. Arg. S. 17379	9	28.5	30.8	32.0	43.0	44.0	45.4	46.7	47.8	58.8	0.0	2.2	48 45.38	0.07	1.99	17 48 43.46	4.91
	* − 38° 4′	10	13.3	15.9	17.4	29.6	30.9	32.5	34.0	35.3	47.7	48.9	51.4	52 32.45	0.10	1.99	17 52 30.56	5.33
	* − 25° 40′	11	35.0	37.2	38.5	49.2	50.3	51.4	52.7	53.8	4.7	5.9	7.9	55 51.51	0.06	1.99	17 55 49.58	4.83
	* − 27° 39′	12	55.2	57.5	58.7	9.7	10.7	12.0	13.4	14.6	25.5	26.6	29.0	0 12.08	0.07	1.98	18 0 10.17	4.89
	* − 39° 22′	13	44.8	47.4	48.7	1.3	2.5	4.1	5.5	6.9	. .	. .	. .	2 57.65	+ 6.54	1.98	18 3 2.21	5.35
	Lacaille 7598	14	. .	. .	. .	20.9	22.0	23.7	25.2	26.5	39.0	40.4	43.0	3 30.09	− 6.32	1.98	18 3 21.79	5.35
	Lacaille 7605	15	. .	. .	. .	9.6	11.0	13.5	33.0	36.3	37.9	39.5	40.8	4 27.70	33.45	1.98	18 3 52.27	5.34
	Lalande 33592	16	56.7	59.5	0.8	. .	. .	. .	. .	. .	31.1	32.5	35.1	8 15.95	0.11	1.98	18 8 13.86	1.96
	* + 38° 34′	17	. .	. .	. .	17.1	18.3	19.8	21.3	22.5	. .	. .	. .	8 19.80	0.11	1.98	18 8 17.71	1.96
	B. A. C. 6193	18	. .	. .	. .	42.0	43.2	44.8	46.2	47.6	. .	. .	. .	8 44.76	0.11	1.98	18 8 42.67	1.94
	* + 38° 44′	19	. .	. .	. .	9.9	11.4	13.9	33.7	36.7	38.1	39.9	41.5	9 28.14	33.45	1.98	18 8 52.71	1.94
	δ Ursæ Minoris	20	. .	. .	. .	30.3	46.0	6.0	28.0	45.5	. .	. .	. .	15 7.16	− 2.27	1.98	. . . .	46.53
	* − 29° 35′	21	27.0	29.6	30.7	42.0	43.2	44.5	45.9	47.0	58.2	59.4	1.7	18 44.47	+ 0.07	1.97	18 18 42.57	4.90
	* − 28° 53′	22	. .	. .	. .	. .	. .	. .	44.9	47.8	49.2	50.7	52.0	20 48.92	− 38.37	1.97	18 20 8.58	4.86
	B. A. C. 6283	23	56.3	58.8	0.0	10.9	12.0	13.5	14.7	15.8	27.0	28.2	30.5	22 13.43	+ 0.07	1.97	18 22 11.53	4.86
	* − 36° 54′	24	. .	. .	. .	59.3	0.6	3.0	22.2	25.2	26.7	28.2	30.0	25 16.90	− 32.44	1.97	18 24 42.49	5.16
	* − 36° 54′	25	. .	. .	. .	44.6	46.0	47.5	49.0	50.3	. .	. .	. .	24 47.48	+ 0.09	1.97	18 24 45.60	5.16
	1 Aquilæ	26	. .	. .	. .	3.5	4.6	5.8	6.9	7.9	17.8	18.9	20.9	28 10.79	− 5.00	1.97	18 28 3.82	4.09
	* − 31° 36′	27	11.7	14.1	15.4	26.7	27.9	29.4	30.6	31.7	43.1	44.5	46.8	33 29.26	+ 0.08	1.96	18 33 27.38	4.92
	* − 31° 46′	28	30.4	32.7	34.0	45.4	46.6	47.9	49.3	50.6	2.0	3.1	5.7	34 47.97	+ 0.08	1.96	18 34 46.09	4.92
	Lalande 34868	29	44.2	46.9	48.2	0.2	1.4	2.8	4.4	5.7	17.8	19.0	21.4	39 2.91	− 0.09	1.96	18 39 0.86	1.94
	O.Arg.S.18747,(1st*)	30	49.0	50.3	51.6	52.9	55.1	. .	0.1	2.6	4.0	5.4	6.6	43 27.76	− 0.33	1.96	18 43 25.47	4.54
	O.Arg.S.18747,(2d*)	31	11.8	13.9	15.0	25.7	26.6	27.8	29.2	30.3	40.7	41.9	44.2	43 27.92	+ 0.05	1.96	18 43 26.01	4.54
	31 Sagittarii	32	. .	. .	. .	29.9	31.0	33.2	49.7	52.3	53.6	54.8	56.3	44 45.10	− 28.02	1.96	18 44 15.12	4.53
	* − 33° 25′	33	. .	. .	. .	21.7	22.8	24.3	25.8	27.0	. .	. .	. .	47 24.32	+ 0.09	1.96	18 47 22.45	4.94
	* − 33° 25′	34	. .	. .	. .	42.5	43.8	45.2	46.5	47.8	. .	. .	. .	47 45.16	+ 0.09	1.96	18 47 43.29	4.94
	* + 35° 38′	35	57.4	59.9	1.4	13.2	14.4	15.8	17.4	18.6	30.5	31.7	34.4	51 15.88	− 0.09	1.95	18 51 13.84	1.94
	* − 38° 29′	36	21.7	24.6	26.0	38.3	39.6	41.1	42.6	44.1	56.4	57.5	0.2	53 41.10	+ 0.11	1.95	18 53 39.26	5.12
	Weisse 1480	37	31.0	33.2	34.3	44.0	45.0	46.2	47.4	48.6	58.3	59.4	1.4	58 46.25	+ 0.02	1.95	18 58 44.32	4.03
	B. A. C. 6574	38	45.3	47.6	48.7	59.1	0.1	1.4	2.7	3.8	14.1	15.2	17.5	7 1.41	− 0.05	1.95	19 6 59.41	2.76
	d Sagittarii	39	43.2	45.5	46.6	56.9	57.9	59.1	0.4	1.6	11.7	12.8	15.0	9 59.15	+ 0.05	1.94	19 9 57.26	4.29
	f Aquilæ	40	19.5	21.6	22.6	32.4	33.3	34.4	35.6	36.7	46.4	47.5	49.6	13 34.51	0.01	1.94	19 13 32.58	3.86
	50 Sagittarii	41	15.0	17.4	18.6	28.8	29.9	31.3	32.6	33.7	44.0	45.1	47.5	18 31.26	0.05	1.94	19 18 29.37	4.44
	* − 15° 23′	42	53.9	55.8	56.9	7.0	8.0	9.3	10.5	11.7	21.7	22.7	24.8	21 9.30	0.04	1.94	19 21 7.40	4.17
	* − 20° 42′	43	. .	. .	. .	45.3	46.4	47.6	48.8	49.9	. .	. .	. .	23 47.60	0.05	1.94	19 23 45.71	4.35
	Lalande 36878	44	8.5	10.6	11.7	22.0	23.0	24.4	25.6	26.7	37.2	38.2	40.4	24 24.39	0.05	1.93	19 24 22.51	4.35
	O. Arg. S. 19748	45	11.3	13.5	14.6	25.0	25.9	27.2	28.3	29.5	40.0	41.0	43.0	28 27.21	0.05	1.93	19 28 25.33	4.30
	O. Arg. S. 19837	46	57.8	59.9	1.3	11.7	13.0	14.3	15.5	16.7	27.5	28.5	30.8	32 14.27	0.07	1.93	19 32 12.41	4.47
	O. Arg. S. 19902	47	8.0	10.1	11.5	22.4	23.6	24.8	26.0	27.3	38.1	39.3	41.5	36 24.78	+ 0.07	1.93	19 36 22.92	4.51
	Lalande 37753	†48	32.2	34.9	36.5	48.7	49.8	51.4	52.7	54.0	6.5	8.0	10.5	42 51.38	− 0.10	1.92	19 42 49.36	1.62
	* + 38° 43′	49	26.7	29.5	30.7	43.1	44.4	45.9	47.3	48.8	1.2	2.5	5.0	1 45.92	− 0.11	1.91	20 1 43.90	1.55
	α^2 Capricorni	50	32.9	35.0	36.2	46.0	47.1	48.4	49.6	50.7	0.5	1.6	3.7	10 48.34	+ 0.03	− 1.91	20 10 46.46	+ 3.97

8. Cloudy.
48. Cloudy.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Aug. 12, 18.7	− 1.96	+ 0.036	− 0.13	0.00

DATE.		OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.				s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Aug. 14 Y.	κ	Ophiuchi . . .	1	13.9	16.0	17.4	26.9	27.9	29.3	30.5	31.5	41.3	42.4	44.4	51 29.23	− 0.03	− 2.16	16 51 27.04	+ 3.91
		O. Arg. S. 16240 .	2	. .	41.9	43.0	53.7	54.9	56.3	57.6	58.7	9.5	10.7	. .	54 56.26	+ 0.08	2.16	16 54 54.18	5.12
		B. A. C. 5762 . .	3	2.2	4.8	6.2	17.3	18.5	19.8	21.3	22.4	33.7	34.9	37.2	59 19.85	+ 0.09	2.16	16 59 17.78	5.25
		Weisse (2) 107 .	4	50.6	53.4	54.8	7.0	8.4	10.0	11.5	12.8	25.0	26.4	29.0	5 9.90	− 0.12	2.16	17 5 7.62	2.53
		B. A. C. 5815 . .	†5	8.0	10.6	12.0	22.4	23.6	24.8	26.1	27.3	38.0	39.2	41.4	8 24.85	+ 0.07	2.16	17 8 22.76	5.01
		O. Arg. S. 16607 .	6	36.5	38.9	40.0	50.8	51.8	53.2	54.4	55.7	6.6	7.7	9.9	11 53.23	+ 0.08	2.16	17 11 51.15	5.04
		O. Arg. S. 16624 .	7	. .	. .	. .	36.8	37.9	40.0	57.0	59.9	1.3	2.7	4.0	12 52.45	− 28.96	2.16	17 12 21.33	5.04
		O. Arg. S. 16644 .	8	. .	. .	. .	31.9	33.0	35.2	52.4	55.0	56.3	57.8	59.0	13 47.58	− 28.95	2.16	17 13 16.47	5.04
		* − 31° 6′ . .	9	28.0	30.4	31.6	42.8	44.0	45.4	46.6	48.0	59.2	0.4	2.8	19 45.38	+ 0.09	2.16	17 19 43.31	5.19
		* − 31° 47′ . .	10	49.8	52.5	53.7	5.0	6.2	7.4	8.9	10.1	21.4	22.6	25.2	23 7.53	+ 0.10	2.16	17 23 5.47	5.20
		B. A. C. 5908 . .	11	. .	. .	. .	45.9	47.2	49.6	7.7	10.7	12.0	13.5	14.8	24 2.68	− 30.48	2.16	17 23 30.04	5.20
		O. Arg. S. 16978 .	12	20.2	22.4	23.6	33.7	34.8	36.0	37.2	38.4	48.5	49.6	51.7	28 36.01	+ 0.05	2.16	17 28 33.80	4.65
		O. Arg. S. 17016 .	13	39.1	41.5	42.7	53.5	54.6	55.9	57.2	58.4	9.2	10.4	12.7	30 55.93	0.08	2.16	17 30 53.85	4.99
		O. Arg. S. 17070 .	14	18.8	21.0	22.3	32.5	33.5	34.8	36.0	37.2	47.4	48.6	50.7	33 34.80	0.05	2.16	17 33 32.69	4.72
		* − 35° 8′ . .	15	15.6	18.1	19.5	31.3	32.5	34.0	35.3	36.7	48.6	49.7	52.3	36 33.96	0.11	2.16	17 36 31.91	5.20
		O. Arg. S. 17249 .	16	. .	40.8	42.0	53.0	54.0	55.5	56.8	57.9	8.7	10.0	. .	41 55.41	0.08	2.16	17 41 53.33	4.95
		B. A. C. 6039 . .	17	23.5	26.0	27.4	38.6	39.7	41.0	42.6	43.7	55.2	56.3	58.9	44 41.17	0.10	2.16	17 44 39.11	5.14
		O. Arg. S. 17379 .	18	28.6	31.0	32.4	43.2	44.3	45.8	46.9	48.0	59.0	0.2	2.4	48 45.62	0.08	2.16	17 48 43.54	4.94
		* − 38° 4′ . .	19	13.6	16.3	17.6	29.7	31.0	32.4	34.0	35.4	47.7	49.0	51.8	52 32.59	0.12	2.16	17 52 30.55	5.36
		* − 25° 40′ . .	20	34.9	37.4	38.6	49.2	50.5	51.7	52.9	54.2	4.9	6.0	8.4	55 51.70	0.07	2.16	17 55 49.61	4.86
		B. A. C. 6144 . .	21	13.2	15.7	17.0	28.3	29.4	31.0	32.4	33.6	44.9	46.0	48.5	1 30.91	0.10	2.16	18 1 28.85	5.09
	μ	Sagittarii . . .	22	40.6	42.9	44.0	54.3	55.5	56.7	58.0	59.2	9.4	10.5	12.7	5 56.71	+ 0.06	2.16	18 5 54.61	4.65
		Lalande 33592 .	23	. .	. .	. .	13.3	14.4	15.9	17.6	18.9	. .	. .	. .	8 16.02	− 0.12	2.16	18 8 13.74	1.99
		* + 38° 34′ . .	24	. .	. .	. .	35.0	36.5	39.0	58.6	1.8	3.2	4.8	6.6	8 53.19	33.37	2.16	18 8 17.66	1.99
		* + 36° 59′ . .	25	55.2	57.7	59.0	11.4	12.5	14.0	15.5	16.8	28.8	30.1	32.8	12 13.98	− 0.12	2.16	18 12 11.70	1.95
		O. Arg. S. 18151 .	26	44.6	47.0	48.3	59.0	0.1	1.5	2.7	3.9	14.7	15.9	18.3	16 1.45	+ 0.08	2.16	18 15 59.37	4.81
		O. Arg. S. 18160 .	27	. .	. .	. .	28.6	29.7	31.0	32.4	33.5	44.4	45.6	47.8	16 36.62	− 5.49	2.16	18 16 28.97	4.81
		(* 18) W. . . .	28	. .	. .	. .	40.2	41.3	42.5	43.8	44.9	. .	. .	. .	19 42.54	+ 0.06	2.16	18 19 40.44	4.65
		* + 35° 59′ . .	29	4.0	6.8	8.2	20.0	21.2	22.7	24.2	25.5	. .	. .	. .	22 16.58	+ 6.04	2.16	18 22 20.46	2.09
		* + 35° 57′ . .	30	. .	. .	. .	42.0	43.4	46.0	4.8	7.7	9.3	10.9	12.4	22 59.56	− 32.24	2.16	18 22 25.16	2.09
		* − 36° 55′ . .	31	41.5	44.0	45.6	57.7	58.8	0.3	1.7	2.9	15.2	16.7	19.0	27 0.31	+ 0.12	2.16	18 26 58.27	5.18
		* − 32° 9′ . .	32	37.2	39.6	40.9	52.5	53.6	54.9	56.4	57.6	8.9	10.2	12.6	30 54.95	0.10	2.16	18 30 52.89	4.97
		* − 37° 58′ . .	33	53.7	56.6	58.0	10.4	11.4	12.8	14.2	15.5	27.9	29.0	31.8	34 12.85	+ 0.12	2.16	18 34 10.81	5.20
		Lalande 74868 .	34	44.4	47.0	48.4	0.4	1.6	3.0	4.4	5.8	17.8	19.0	21.7	39 3.05	− 0.11	2.16	18 39 0.78	1.97
		B. A. C. 6439 . .	35	51.2	53.6	54.8	5.9	7.0	8.4	9.7	10.9	22.0	23.2	25.6	47 8.39	+ 0.09	2.16	18 47 6.32	4.80
		Lacaille 7932 . .	36	48.7	51.5	53.0	5.5	6.7	8.5	9.9	11.2	23.8	25.2	27.7	50 8.34	0.13	2.16	18 50 6.31	5.20
		* − 38° 29′ . .	37	22.3	24.8	26.2	38.5	39.8	41.2	42.7	44.2	56.6	57.9	0.4	53 41.33	0.12	2.16	18 53 39.29	5.14
		O. Arg. S. 19086 .	38	20.2	22.5	23.7	34.0	35.0	36.4	37.7	38.8	49.2	50.3	52.6	59 36.40	+ 0.06	2.16	18 59 34.30	4.48
		O. Arg. S. 19098 .	39	. .	. .	. .	9.8	10.8	12.2	13.4	14.6	25.0	26.0	28.4	0 17.52	− 5.31	2.16	19 0 10.05	4.48
		O. Arg. S. 19104 .	40	. .	. .	. .	. .	. .	. .	55.3	57.8	59.3	0.6	2.0	0 59.00	36.24	2.16	19 0 20.60	4.48
		Lalande 36002 .	41	. .	. .	. .	26.3	27.5	30.2	49.8	52.7	54.4	55.9	57.6	4 44.30	− 33.26	2.16	19 4 8.88	1.72
		O. Arg. S. 19306 .	42	51.7	54.0	55.2	5.6	6.7	8.0	9.2	10.3	20.7	21.8	24.0	8 7.93	+ 0.06	2.16	19 8 5.83	4.46
		O. Arg. S. 19319 .	43	. .	. .	. .	. .	. .	. .	20.3	23.0	24.4	25.7	27.0	9 24.08	− 36.24	2.16	19 8 45.68	4.46
		O. Arg. S. 19374 .	44	. .	. .	. .	. .	. .	. .	55.2	57.7	58.9	0.3	1.6	11 58.74	27.33	2.16	19 11 29.25	4.31
		Lalande 36478 .	†45	. .	. .	. .	42.0	43.4	45.8	5.0	8.1	9.7	11.2	12.7	14 59.74	32.78	2.16	19 14 24.80	1.77
		Lalande 36513 .	46	. .	. .	. .	. .	. .	. .	43.0	46.0	47.6	49.2	50.7	15 47.30	42.32	2.16	19 15 2.82	1.77
	50	Sagittarii . . .	47	. .	. .	. .	. .	. .	. .	3.9	6.6	8.0	9.3	10.7	19 7.70	− 36.25	2.16	19 18 29.29	4.42
		* − 15° 23′ . .	48	53.8	56.0	57.3	7.0	8.2	9.5	10.7	11.8	21.7	22.8	24.9	21 9.43	+ 0.04	2.16	19 21 7.31	4.18
		Lalande 36878 .	49	8.3	. .	11.7	22.0	23.2	24.6	25.8	26.9	37.3	. .	40.5	24 24.48	0.06	2 16	19 24 22.38	4.36
	κ	Aquilæ . . .	50	36.9	38.9	40.0	49.9	50.9	52.0	53.3	54.4	4.0	5.0	7.0	29 52.03	+ 0.02	− 2.16	19 29 49.89	+ 3.88

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Aug. 14, 18.7	− 2.16	+ 0.001	− 0.15	0.00

5. Saw no other.
45. Smaller star to southward.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868. Aug. 14	Weisse 875 . .	1	30.5	32.6	33.8	43.6	44.7	45.8	47.1	48.2	58.0	59.0	1.2	34 45.86	− 0.04	− 2.16	19 34 43.66	+ 3.15
Y.	Weisse 886 . .	2	. .	. .	. .	21.4	22.5	24.5	40.0	42.7	43.9	45.2	46.5	35 35.84	− 26.60	2.16	19 35 7.08	3.15
	Lacaille 8216 . .	3	56.0	58.9	0.4	13.4	14.7	16.3	17.9	19.3	32.3	33.9	36.7	39 16.35	+ 0.14	2.16	19 39 14.33	5.09
	O. Arg. S. 20022 .	4	26.2	28.3	29.6	40.5	41.5	42.8	44.2	45.4	56.3	57.4	59.7	44 42.90	+ 0.08	2.16	19 44 40.82	4.48
	O. Arg. S. 20039 .	5	. .	. .	. .	21.2	22.3	23.6	24.8	26.0	37.0	38.2	40.5	45 29.20	− 5.52	2.16	19 45 21.52	4.51
	O. Arg. S. 20096 .	6	4.8	7.0	8.2	18.4	19.4	20.6	21.7	22.9	32.9	34.0	36.2	49 20.55	+ 0.05	2.16	19 49 18.44	4.15
	Lacaille 8293 . .	7	. .	. .	. .	50.1	51.4	54.0	13.3	16.2	17.9	19.7	21.0	52 7.95	− 32.91	2.16	19 51 32.88	+ 4.86
	λ Ursæ Minoris . .	8	. .	. .	. .	17.5	11.0	14.0	19.5	12.0	. .	. .	. .	57 14.80	− 7.78	2.16	. . . .	− 167.59
	O. Arg. S. 20274 .	9	54.7	56.9	58.0	8.2	9.4	10.6	11.7	12.9	23.2	24.3	26.4	2 10.57	+ 0.05	2.16	20 2 8.46	+ 4.17
	Lacaille 8369 . .	10	34.5	37.2	38.5	50.9	52.3	53.9	55.3	56.6	9.0	10.4	12.9	4 53.77	+ 0.13	2.16	20 4 51.74	4.83
	* − 13° 40′ . .	11	. .	. .	. .	36.8	37.9	40.0	55.7	58.2	59.6	0.8	2.3	15 51.41	− 26.73	2.16	20 15 22.52	3.97
	Weisse 359 . .	12	. .	. .	. .	. .	. .	. .	18.5	21.0	22.4	23.7	25.0	16 22.12	34.60	2.16	20 15 45.36	3.97
	Weisse 369 . .	13	. .	. .	. .	. .	. .	. .	37.5	40.0	41.3	42.6	43.9	16 41.06	34.60	2.16	20 16 4.30	3.97
	Weisse 387 . .	14	. .	. .	. .	2.8	4.0	5.9	21.7	24.2	25.5	26.8	28.0	17 17.36	26.74	2.16	20 16 48.46	3.97
	* + 38° 53′ . .	15	. .	. .	. .	28.7	30.2	31.8	33.2	34.6	47.0	48.2	50.8	22 38.06	6.52	2.16	20 22 29.38	1.56
	ε Delphini . . .	16	43.9	46.0	47.0	57.0	58.0	59.3	0.4	1.5	11.2	12.3	14.5	26 59.19	0.03	2.16	20 26 57.00	3.11
17	* + 37° 39′ . .	17	45.4	48.2	49.7	1.6	3.0	4.6	6.0	7.4	19.4	20.8	23.4	33 4.50	0.10	1.98	18 33 2.42	1.96
	β Lyræ	18	58.7	1.3	2.6	14.0	15.2	16.6	17.9	19.2	30.8	31.9	34.5	45 16.61	− 0.08	1.97	18 45 14.56	2.21
	O. Arg. S. 19086 .	19	19.9	22.4	23.5	33.8	34.9	36.0	37.3	38.6	48.9	50.0	52.0	59 36.12	+ 0.09	1.95	18 59 34.26	4.50
	O. Arg. S. 19098 .	20	. .	. .	. .	9.6	10.6	12.0	13.2	14.3	24.7	25.8	27.9	0 17.26	− 5.28	1.95	19 0 10.03	4.51
	O. Arg. S. 19104 .	21	. .	. .	. .	35.0	36.3	38.4	54.9	57.7	58.9	0.2	1.6	0 50.38	27.96	1.95	19 0 20.47	4.51
	O. Arg. S. 19179 .	22	. .	. .	. .	42.9	44.0	45.5	46.5	47.8	58.0	59.2	1.6	2 50.69	5.27	1.95	19 2 43.47	4.50
	B. A. C. 6574 . .	23	45.2	47.4	48.6	58.9	0.0	1.3	2.5	3.7	14.0	15.0	17.3	7 1.26	− 0.05	1.95	19 6 59.26	2.80
	Weisse 187 . .	†24	53.9	56.0	57.2	6.9	8.0	9.2	10.5	11.4	21.2	22.2	24.4	9 9.17	+ 0.05	1.94	19 9 7.28	4.02
	* + 37° 10′ . .	25	. .	. .	. .	40.7	41.9	44.6	3.8	6.7	8.2	9.9	11.4	14 58.40	− 32.74	1.94	19 14 23.72	1.81
	Lalande 36478 .	26	. .	. .	. .	23.9	25.0	26.7	28.4	29.6	. .	. .	. .	14 26.72	0.10	1.94	19 14 24.68	1.81
	Lalande 36729 .	27	24.0	26.8	28.2	40.6	41.8	43.4	44.8	46.3	58.7	0.1	2.6	19 43.39	0.11	1.93	19 19 41.35	1.65
	Lalande 36891 .	28	43.5	46.2	47.6	59.7	1.0	2.7	4.0	5.4	17.7	18.9	21.6	23 2.58	0.10	1.93	19 23 0.55	1.74
	B. A. C. 6691 . .	29	. .	. .	. .	25.8	26.8	28.3	29.7	30.8	. .	. .	. .	25 28.28	0.06	1.93	19 25 26.29	2.40
	* + 27° 41′ . .	30	. .	. .	. .	43.8	45.0	47.5	4.6	7.3	8.7	10.1	11.5	25 59.81	− 29.43	1.93	19 25 28.45	2.40
	O. Arg. S. 19796 .	31	0.5	2.9	4.0	15.2	16.2	17.6	18.9	20.0	30.9	32.0	34.5	30 17.52	+ 0.11	1.92	19 30 15.71	4.62
	* − 29° 9′ . .	32	23.3	25.9	27.2	38.0	39.2	40.7	41.9	43.1	54.3	55.4	57.8	33 40.62	0.11	1.92	19 33 38.81	4.63
	O. Arg. S. 19933 .	33	58.5	0.8	2.0	13.0	14.2	15.5	16.8	18.0	28.9	30.2	32.3	38 15.47	0.10	1.91	19 38 13.66	4.56
	* − 27° 25′ . .	34	6.8	9.2	10.4	21.4	22.4	23.7	25.0	26.3	37.2	38.2	40.6	40 23.75	0.10	1.91	19 40 21.94	4.54
	O. Arg. S. 20049 .	35	52.9	55.3	56.5	7.3	8.5	9.9	11.2	12.4	23.0	24.2	26.6	46 9.80	+ 0.10	1.90	19 46 8.00	4.51
	Lalande 38037 .	36	. .	. .	. .	4.3	5.3	6.7	8.2	9.4	21.2	22.6	25.0	50 12.84	− 6.12	1.90	19 50 4.82	1.92
	* + 34° 57′ . .	37	37.9	40.4	41.8	. .	. .	. .	33.0	36.0	37.6	38.9	40.5	55 15.76	− 19.68	1.89	19 54 54.19	1.88
	* + 34° 55′ . .	38	19.2	20.6	22.4	24.0	26.4	. .	. .	42.6	44.0	45.6	47.0	55 59.09	+ 3.54	1.89	19 56 0.74	1.88
	* + 39° 11′ . .	39	. .	. .	. .	33.8	35.0	36.3	38.0	39.5	51.9	53.3	55.8	59 42.95	− 6.52	1.89	19 59 34.54	4.88
	O. Arg. S. 20276 .	40	57.6	59.9	1.3	11.4	12.6	13.7	15.0	16.2	26.4	27.8	29.9	2 13.80	+ 0.09	1.89	20 2 12.00	4.28
	* − 14° 4′ . .	41	39.0	41.0	42.3	52.2	53.3	54.5	55.8	57.0	6.7	7.8	9.9	4 54.50	+ 0.06	1.88	20 4 52.68	4.02
	* − 14° 5′ . .	42	. .	. .	. .	30.7	31.7	33.7	49.6	52.0	53.2	54.5	55.8	5 45.15	− 26.76	1.88	20 5 16.51	4.02
	Weisse 101 . .	43	. .	. .	. .	14.0	15.0	17.2	32.9	35.4	36.7	37.9	39.3	6 28.55	− 26.76	1.88	20 5 59.91	4.02
	α² Capricorni . .	44	32.9	35.0	36.2	46.0	47.0	48.2	49.5	50.6	0.4	1.5	3.6	10 48.26	+ 0.06	1.88	20 10 46.44	3.98
	* − 19° 31′ . .	45	44.6	47.0	48.0	58.4	59.4	0.6	1.8	3.0	13.2	14.3	16.4	14 0.61	0.08	1.87	20 13 58.82	4.17
	* − 19° 29′ . .	46	15.6	17.7	18.9	29.0	30.0	31.3	32.6	33.7	44.0	45.0	47.2	15 31.36	+ 0.08	1.87	20 15 29.57	+ 4.16
	λ Ursæ Minoris . .	47	. .	. .	. .	. .	. .	. .	. .	4.0	10.0	18.0	25.0	27 44.25	−30 39.90	1.86	. . . .	− 165.20
	O. Arg. S. 20501 .	48	58.5	0.8	1.9	12.4	13.4	14.6	15.9	16.9	27.4	28.5	30.7	19 14.64	+ 0.08	1.87	20 19 12.85	+ 4.20
	Weisse 767 . .	49	. .	. .	. .	. .	. .	. .	39.7	42.3	43.5	44.8	46.0	31 43.26	− 34.50	1.86	20 31 6.90	3.92
	Weisse 779 . .	50	. .	. .	. .	. .	. .	. .	6.0	8.7	9.9	11.0	12.5	32 9.62	− 34.50	− 1.86	20 31 33.26	+ 3.92

24. Saw no other.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
Aug. 17, 20.3	− 1.87	+ 0.063	− 0.16	+ 0.02

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868. Aug. 17	O. Arg. S. 20762 .	†1	11.9	14.2	15.3	. .	. .	. .	. .	. .	. .	. .	. .	35 13.80	+ 14.19	− 1.85	20 35 26.14	+ 4.12
	O. Arg. S. 20859 .	†2	35.8	38.0	39.2	49.2	50.2	51.5	52.7	53.7	. .	. .	. .	40 46.29	+ 5.28	1.85	20 40 49.72	4.02
	μ Aquarii . . .	3	. .	. .	. .	48.4	49.4	51.6	7.0	9.6	10.8	12.1	13.4	46 2.79	− 26.32	1.84	20 45 34.63	3.79
	* − 0° 2′ . .	4	. .	. .	. .	24.5	25.6	27.6	42.9	45.3	46.6	47.8	48.9	50 38.65	25.99	1.84	20 50 10.82	3.43
	* − 14° 1′ . .	5	. .	. .	. .	0.0	1.0	2.4	3.6	4.7	14.6	15.6	17.9	53 7.48	− 5.07	1.83	20 53 0.58	3.90
	Weisse 1370 . .	6	40.7	43.0	44.0	54.0	55.0	56.3	57.4	58.4	8.3	9.5	11.6	53 56.20	+ 0.06	1.83	20 53 54.43	3.90
	B. A. C. 7320 . .	7	43.3	46.0	47.5	59.7	0.9	2.5	4.0	5.4	17.6	18.8	21.5	58 2.47	− 0.10	1.83	20 58 0.54	1.70
	Lalande 41086 .	8	44.7	47.2	48.7	. .	. .	. .	. .	. .	18.9	20.2	22.7	4 3.73	0.10	1.82	21 4 1.81	1.71
	Weisse (2) 154 .	9	19.4	21.9	23.2	35.2	36.4	37.8	39.3	40.6	52.4	53.6	56.0	7 37.80	0.09	1.82	21 7 35.89	1.72
	Lalande 41341 .	10	2.9	5.5	6.8	. .	. .	. .	. .	. .	36.4	37.8	40.4	10 21.63	0.10	1.82	21 10 19.71	1.84
	Weisse (2) 322 .	11	51.7	54.4	55.7	7.9	9.4	10.8	12.4	13.7	26.0	27.3	30.0	14 10.85	0.10	1.82	21 14 8.93	1.74
	Weisse (2) 328 .	12	. .	. .	. .	43.3	44.6	47.0	6.6	9.7	11.0	12.8	14.4	15 1.18	33.21	1.81	21 14 26.16	1.74
	Lalande 41624 .	13	. .	. .	. .	50.6	52.0	54.7	14.2	17.3	18.9	20.5	22.0	18 8.78	33.12	1.81	21 17 33.85	1.76
	* + 38° 1′ . .	14	. .	. .	. .	35.8	37.0	38.6	40.0	41.3	. .	. .	. .	18 38.54	0.10	1.81	21 18 36.63	1.77
	* + 38° 3′ . .	15	1.7	4.5	5.8	18.0	19.3	20.8	22.4	23.8	36.0	37.3	39.9	19 20.86	− 0.10	1.81	21 19 18.95	1.77
	β Aquarii . . .	16	25.8	28.0	29.0	38.7	39.7	40.9	42.0	43.0	52.8	53.9	56.0	24 40.89	+ 0.04	− 1.80	21 24 39.13	3.64
26	μ Herculis . . .	17	57.1	59.4	0.6	11.4	12.6	13.9	15.3	16.5	27.4	28.6	30.8	41 13.96	− 0.05	+ 5.33	17 41 19.24	+ 3.04
	δ Ursæ Minoris .	18	40.0	15.0	34.5	17.5	34.5	55.0	15.0	33.0	16.0	34.5	9.0	14 54.91	2.34	5.36	. . . . .	− 41.57
	Lalande 34412 .	19	58.7	1.4	2.7	14.9	16.0	17.6	19.2	20.4	32.7	33.9	36.6	28 17.65	0.09	5.38	18 28 22.94	+ 2.15
	* + 37° 39′ . .	20	37.8	40.5	42.0	54.2	55.5	57.0	58.4	59.8	11.9	13.4	16.0	32 56.95	0.09	5.32	18 33 2.18	+ 2.13
	* + 72° 9′ . .	21	. .	. .	. .	22.5	25.8	29.7	33.6	36.8	. .	. .	. .	37 29.68	0.46	5.39	18 37 34.61	− 4.33
	Lalande 35004 .	22	. .	. .	. .	4.5	8.2	12.1	16.0	19.6	. .	. .	. .	38 12.08	0.46	5.39	18 38 17.01	4.37
	Lalande 35041 .	23	. .	. .	. .	4.5	7.9	11.8	15.7	19.0	. .	. .	. .	39 11.78	0.46	5.39	18 39 16.71	− 4.35
	β¹ Lyræ	24	51.3	53.6	55.0	6.5	7.7	9.2	10.5	11.8	23.3	24.5	26.9	45 9.12	0.07	5.40	18 45 14.45	+ 2.36
	β² Lyræ	25	28.3	29.8	31.5	33.0	35.5	. .	47.2	50.1	51.5	53.0	54.5	45 11.44	0.49	5.40	18 45 16.35	2.36
	50 Draconis . . .	26	. .	. .	. .	25.9	30.0	34.5	39.4	43.7	. .	. .	. .	50 34.70	0.56	5.40	18 50 39.54	6.55
	γ Lyræ	27	39.3	41.7	43.0	54.6	55.7	57.1	58.4	59.6	11.1	12.5	14.7	53 57.06	− 0.07	5.41	18 54 2.40	2.15
	ε Delphini . . .	28	36.2	38.3	39.5	49.2	50.1	51.5	52.7	53.7	3.6	4.5	6.8	26 51.46	+ 0.01	5.51	20 26 56.98	3.15
	* − 33′ 38′ . .	29	32.0	34.5	35.8	47.5	48.6	50.2	51.5	52.7	4.4	5.6	8.1	30 50.08	+ 0.16	5.52	20 30 55.76	4.57
	Weisse (2) 1140 .	30	. .	. .	. .	52.6	53.8	56.4	16.0	19.0	20.6	22.3	23.9	34 10.58	− 33.17	5.52	20 33 42.93	1.71
	B. A. C. 7172 . .	31	59.1	1.1	2.3	11.9	12.9	14.2	15.4	16.4	26.0	27.1	29.2	37 14.15	+ 0.05	5.53	20 37 19.73	3.66
	B. A. C. 7210, (1st *)	32	27.0	28.2	29.9	31.4	33.8	. .	41.6	44.3	45.6	47.1	48.5	42 7.74	− 0.25	5.53	20 42 13.02	4.34
	B. A. C. 7210, (2d *)	33	51.9	54.1	55.6	6.2	7.4	8.8	10.2	11.3	22.0	23.3	25.5	42 8.75	+ 0.14	5.53	20 42 14.42	4.34
	O. Arg. S. 20951 .	34	15.9	18.1	19.2	29.4	30.3	31.6	32.7	33.7	44.0	45.1	47.3	47 31.57	0.09	5.54	20 47 37.20	3.97
	* − 12° 53′ . .	†35	32.9	35.1	36.2	46.2	47.1	48.3	49.5	50.6	0.5	1.6	3.7	50 48.34	+ 0.08	5.54	20 50 53.96	3.88
	* + 37° 8′ . .	36	22.1	24.6	26.2	38.1	39.5	41.0	42.5	43.8	55.9	57.2	59.9	55 40.98	− 0.09	5.55	20 55 46.44	1.80
	B. A. C. 7320 . .	37	36.0	38.6	40.0	52.2	53.5	55.0	56.5	57.9	10.1	11.4	14.1	57 55.03	0.09	5.55	20 58 0.49	1.74
	O.Arg.S.21189,(1st*)	38	14.2	15.5	16.9	18.2	20.7	. .	26.0	28.8	30.2	31.5	32.8	3 53.48	− 0.26	5.56	21 3 58.78	4.13
	O.Arg.S.21189,(2d*)	39	37.3	39.5	40.7	51.1	52.4	53.7	54.9	56.1	6.6	7.6	9.9	3 53.62	+ 0.12	5.56	21 3 59.30	4.13
	* − 15° 40′ . .	40	33.2	35.4	36.5	46.5	47.6	48.8	50.1	51.2	1.2	2.3	4.4	7 48.84	+ 0.09	5.56	21 7 54.49	3.90
	* − 15° 49′ . .	41	. .	. .	. .	17.8	19.0	20.9	36.9	39.4	40.7	42.0	43.1	8 32.48	− 26.95	5.56	21 8 11.09	3.90
	O. Arg. S. 21290 .	42	59.9	2.1	3.3	13.7	14.7	16.0	17.4	18.5	28.9	30.0	32.2	11 16.06	+ 0.12	5.56	21 11 21.74	4.07
	* − 21° 23′ . .	43	13.8	16.1	17.2	27.6	28.7	30.0	31.3	32.4	42.7	43.7	46.0	13 29.95	0.11	5.57	21 13 35.63	4.03
	33 Capricorni . .	44	21.2	23.4	24.5	34.9	35.9	37.3	38.5	39.7	49.9	50.9	53.4	16 37.24	+ 0.11	5.57	21 16 42.92	4.02
	* − 22′ 24′ . .	45	. .	. .	. .	37.6	38.7	40.0	41.3	42.4	52.9	54.0	56.2	18 45.39	− 5.27	5.57	21 18 45.69	4.04
	b Capricorni . . .	46	52.5	54.9	55.9	6.2	7.4	8.7	10.0	11.2	21.5	22.7	24.9	21 8.72	+ 0.12	5.58	21 21 14.42	4.03
	(* 39) W. . . .	47	. .	. .	. .	. .	. .	. .	9.8	12.3	13.6	14.9	16.2	24 13.36	− 34.99	5.58	21 23 43.95	3.88
	B. A. C. 7497 . .	48	41.8	43.9	45.1	54.6	55.7	57.0	58.0	59.2	8.8	9.8	11.9	27 56.89	+ 0.04	5.58	21 28 2.51	3.40
	Weisse 691 . .	49	43.4	45.7	46.7	56.3	57.4	58.6	59.7	0.8	10.6	11.6	13.7	29 58.59	0.06	5.58	21 30 4.23	3.58
	* − 35° 7′ . . .	50	9.1	11.6	13.0	24.8	26.0	27.5	28.8	30.1	42.1	43.2	45.8	32 27.45	+ 0.18	+ 5.59	21 32 33.22	+ 4.88

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Aug. 16, 19.8	+ 5.47	+ 0.068	− 0.18	+ 0.04

1-2. Cloudy.

35. Smaller star to southward following 3^s.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	s.	s.	h. m. s.	s.
Aug. 26	O. Arg. S. 21629 .	1	..	..	..	16.0	17.0	18.3	19.6	20.7	..	..	..	39 18.32	+ 0.10	+ 5.60	21 39 24.02	+ 3.89
Y.	O. Arg. S. 21645 .	2	7.1	9.3	10.5	20.6	21.7	23.0	24.2	25.3	35.6	36.7	38.7	40 22.97	+ 0.10	5.60	21 40 28.67	3.89
	* − 18° 58′ . .	3	..	..	..	53.1	54.1	55.5	56.7	57.8	8.0	9.2	11.3	41 0.71	− 5.16	5.60	21 41 1.15	3.89
	Lacaille 8948 . .	4	55.1	57.6	59.0	11.2	12.4	13.9	15.5	16.7	28.3	30.3	32.6	45 13.92	+ 0.19	5.60	21 45 19.71	4.27
	* − 24° 22′ . .	5	36.1	38.4	39.7	50.3	51.3	52.7	53.8	55.2	5.7	6.7	9.0	47 52.63	0.13	5.61	21 47 58.37	3.98
	O. Arg. S. 21750 .	6	49.5	51.8	53.0	..	..	..	..	..	18.6	19.7	21.8	50 5.73	0.12	5.61	21 50 11.46	3.92
	O. Arg. S. 21760 .	7	..	..	..	4.0	5.2	6.5	7.7	8.8	..	..	..	50 6.44	0.12	5.61	21 50 12.17	3.92
	O. Arg. S. 21800 .	8	15.7	18.2	19.2	29.4	30.6	31.9	33.1	34.3	44.5	45.7	47.9	53 31.86	0.10	5.61	21 53 37.57	3.90
	* − 26° 18′ . .	9	31.6	33.9	35.2	45.9	46.9	48.3	49.6	50.8	1.6	2.7	5.1	55 48.33	+ 0.13	5.61	21 55 54.07	3.90
	* − 20° 28′ . .	10	15.4	17.7	18.8	29.2	30.2	31.5	32.7	33.8	44.1	45.3	47.4	58 31.46	0.11	5.62	21 58 37.19	3.87
	O. Arg. S. 21912 .	11	41.3	43.6	44.7	54.8	55.9	57.2	58.5	59.5	9.7	10.9	13.0	0.57.19	+ 0.10	5.62	22 1 2.91	3.83
	O. Arg. S. 21966 .	†12	..	..	..	59.7	0.8	2.0	3.1	4.2	14.5	15.5	17.6	5 7.18	− 5.15	5.62	22 5 7.65	3.79
	θ Aquarii . . .	13	33.7	35.9	37.0	46.8	47.9	49.0	50.2	51.2	1.0	2.1	4.2	9 49.00	+ 0.07	5.63	22 9 54.70	3.62
31	ζ Aquilæ . . .	14	59.1	1.0	2.3	12.2	13.3	14.5	15.9	16.8	26.5	27.6	29.8	59 14.45	− 0.13	8.39	18 59 22.71	3.32
	O. Arg. S. 19188 .	15	33.9	36.3	37.4	48.5	49.6	50.8	52.2	53.4	4.6	5.9	8.3	2 50.99	+ 0.12	8.39	19 2 59.50	4.94
	* − 8° 32′ . . .	†16	..	..	..	32.5	33.5	34.7	35.9	36.9	..	..	..	6 34.70	− 0.02	8.40	19 6 43.08	4.15
	Weisse 187 . .	17	..	..	..	56.4	57.5	58.7	59.8	0.8	..	..	..	8 58.64	0.02	8.40	19 9 7.02	4.16
	* − 8° 58′ . . .	18	..	..	..	21.5	22.5	24.5	39.4	41.7	43.0	44.4	45.7	9 35.34	− 25.92	8.40	19 9 17.82	4.16
	Lalande 36426 .	19	30.4	32.6	33.8	44.1	45.3	46.6	47.7	48.8	59.0	0.0	2.4	14 46.43	+ 0.05	8.40	19 14 54.88	4.49
	Lalande 36448 .	20	..	..	..	12.1	13.3	14.6	15.7	16.8	26.8	28.0	30.3	15 19.70	− 5.22	8.40	19 15 22.88	4.49
	* − 19° 22′ . .	21	0.1	2.2	3.5	13.5	14.5	16.0	17.3	18.2	28.6	29.6	31.9	17 15.95	+ 0.05	8.40	19 17 24.40	4.49
	O. Arg. S. 19600 .	22	42.6	44.8	45.9	56.8	58.0	59.3	0.6	1.7	12.3	13.7	15.9	20 59.24	+ 0.09	8.40	19 21 7.73	4.71
	O. Arg. S. 19608 .	23	..	..	..	23.6	24.7	26.0	27.5	28.6	39.3	40.4	42.7	21 31.60	− 5.45	8.40	19 21 34.55	4.71
	O. Arg. S. 19693 .	24	7.3	9.5	10.5	20.8	21.8	23.0	24.3	25.4	35.6	36.8	39.0	25 23.09	+ 0.05	8.40	19 25 31.54	4.46
	O. Arg. S. 19732 .	25	12.8	14.9	16.0	26.2	27.4	28.6	29.8	30.9	41.2	42.4	44.6	27 28.62	0.05	8.40	19 27 37.07	4.46
	O. Arg. S. 20022 .	26	15.4	17.8	18.7	..	..	..	..	..	45.3	46.7	49.0	44 32.15	0.11	8.41	19 44 40.67	4.63
	* − 27° 13′ . .	27	..	..	..	33.6	34.8	36.2	37.4	38.7	..	..	..	44 36.14	0.11	8.41	19 44 44.66	4.63
	O. Arg. S. 20039 .	28	55.7	58.3	59.6	10.3	11.5	12.9	14.3	15.5	26.2	27.5	29.7	45 12.86	+ 0.11	8.41	19 45 21.38	4.63
	O. Arg. S. 20078 .	29	..	..	..	35.5	36.8	39.1	55.8	58.2	59.5	1.0	2.4	48 51.04	− 28.85	8.41	19 48 30.60	4.64
	Lacaille 8302 . .	30	51.7	54.2	55.6	7.1	8.2	9.6	11.0	12.2	23.7	24.9	27.3	52 9.59	+ 0.13	8.41	19 52 18.13	4.78
	O. Arg. S. 20194 .	31	56.1	58.4	59.6	10.6	11.9	13.1	14.4	15.7	26.6	28.0	30.3	56 13.15	0.11	8.41	19 56 21.67	4.60
	* − 16° 18′ . .	32	15.3	17.3	18.4	..	..	..	..	..	43.2	44.4	46.5	1 30.85	+ 0.03	8.41	20 1 39.29	4.18
	Weisse (2) 306 .	33	..	..	..	..	..	..	8.1	10.9	12.4	14.2	15.5	9 12.22	− 42.40	8.42	20 8 38.24	1.78
	* + 38° 22′ . .	34	23.9	26.5	27.9	40.3	41.5	43.0	44.7	45.9	58.1	59.6	2.4	8 43.07	− 0.37	8.42	20 8 51.12	1.78
	O. Arg. S. 20406 .	35	8.6	11.0	12.1	22.9	24.0	25.4	26.6	27.7	38.4	39.7	41.9	12 25.30	+ 0.09	8.42	20 12 33.81	4.44
	* − 21° 15′ . .	36	..	2.1	3.3	13.7	14.8	16.0	17.2	18.5	28.8	29.9	..	15 16.03	+ 0.06	8.42	20 15 24.51	4.28
	O. Arg. S. 20482 .	37	..	..	..	24.6	25.7	26.9	28.3	29.4	39.8	41.0	43.5	17 32.40	− 5.38	8.42	20 17 35.44	4.36
	Lalande 39496 .	38	42.8	44.4	46.0	47.7	50.8	..	7.8	10.4	12.2	14.0	15.6	23 29.17	+ 0.06	8.42	20 23 37.65	1.72
	* + 38° 56′ . .	39	12.0	14.7	16.0	28.7	29.9	31.5	32.8	34.0	46.4	47.8	50.5	23 31.30	− 0.38	8.42	20 23 39.34	1.72
	* − 0° 3′ . . .	40	..	..	..	42.0	43.0	45.2	59.8	2.0	3.2	4.6	5.7	27 55.69	− 25.64	8.42	20 27 38.47	3.57
	B. A. C. 7116 . .	41	23.8	26.2	27.3	37.6	38.9	40.1	41.3	42.4	52.5	53.8	56.0	30 39.99	+ 0.06	8.42	20 30 48.47	4.22
	B. A. C. 7155 . .	42	48.7	51.4	52.8	5.3	6.7	8.1	9.9	11.2	23.7	25.2	28.0	34 8.27	+ 0.20	8.42	20 34 16.89	4.79
	Weisse 924 . .	43	26.6	28.6	29.7	39.4	40.5	41.6	42.8	43.8	53.4	54.5	56.6	36 41.59	− 0.07	8.42	20 36 49.94	3.54
	O. Arg. S. 20839 .	44	..	45.0	46.0	56.4	57.4	58.7	59.9	0.9	11.4	12.5	..	38 58.69	+ 0.05	8.43	20 39 7.17	4.14
	μ Aquarii . . .	45	10.9	13.2	14.2	23.8	24.9	26.1	27.3	28.3	38.1	39.3	41.5	45 26.15	− 0.01	8.43	20 45 34.57	3.82
	B. A. C. 7259 . .	46	..	11.6	13.0	26.4	27.7	29.5	31.2	32.5	45.9	47.3	..	48 29.46	− 0.44	8.43	20 48 37.45	1.31
	Weisse 1291 . .	47	56.8	59.0	0.0	9.9	11.0	12.2	13.4	14.4	24.4	25.6	27.8	51 12.23	+ 0.01	8.43	20 51 20.67	3.92
	Lacaille 8638 . .	†48	..	..	..	..	..	..	8.1	11.2	12.8	14.8	16.3	54 12.64	− 45.21	8.43	20 53 35.86	4.77
	O. Arg. S. 21154 .	49	41.5	43.7	44.8	55.3	56.4	57.7	58.9	0.1	10.5	11.7	14.0	1 57.69	+ 0.07	8.43	21 2 6.19	4.13
	Lacaille 8719 . .	50	10.7	13.4	14.8	27.4	28.6	30.2	31.7	33.0	45.7	47.0	49.8	4 30.21	+ 0.20	+ 8.43	21 4 38.84	+ 4.58

12. Saw no other.
16. Preceded by star of 10th mag.—2′ to northward.
48. Second of two.

r.
August 27. Image west 0.24. Clamp east.
Image west 0.40. Clamp west.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Aug. 31, 20.9	+ 8.43	+ 0.019	− 0.35	− 0.07

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Aug. 31	Lacaille 8737 . .	1	17.9	20.5	21.9	34.7	35.9	37.5	39.2	40.6	53.4	54.8	57.6	6 37.64	+ 0.21	+ 8.43	21 6 46.28	+ 4.60
Y.	Lacaille 8747 . .	2	. .	. .	. .	46.1	47.4	49.0	50.6	51.8	. .	. .	. .	8 48.98	0.20	8.43	21 8 57.61	4.54
	O. Arg. S. 21290 .	3	57.1	59.3	0.3	11.0	12.0	13.4	14.7	15.7	26.1	27.3	29.6	11 13.32	0.07	8.44	21 11 21.83	4.06
	* − 21° 23′ . .	4	11.1	13.3	14.5	24.7	25.8	27.3	28.4	29.5	39.8	40.9	43.2	13 27.14	0.06	8.44	21 13 35.64	4.04
	Lalande 41544 . .	5	10.2	12.2	13.4	23.3	24.3	25.5	26.7	27.7	37.8	38.8	40.9	16 25.53	0.00	8.44	21 16 33.97	3.80
	O. Arg. S. 21378 .	6	. .	. .	. .	22.2	23.5	24.8	26.0	27.0	. .	. .	. .	18 24.70	0.09	8.44	21 18 33.23	4.11
	O. Arg. S. 21382 .	7	. .	. .	. .	33.6	34.8	36.1	37.5	38.7	. .	. .	. .	18 36.14	+ 0.09	8.44	21 18 44.67	4.11
	β Aquarii . . .	8	15.9	17.8	18.9	28.5	29.6	30.8	32.0	33.1	42.7	43.8	45.8	24 30.81	− 0.03	8.44	21 24 39.22	3.61
	* − 18° 59′ . .	9	39.4	41.7	42.7	52.9	54.0	55.2	56.4	57.6	7.7	8.8	11.2	28 55.24	+ 0.04	8.44	21 29 3.72	3.92
	B. A. C. 7507 . .	10	37.7	39.9	41.6	51.2	52.3	53.6	54.8	55.9	6.0	7.3	9.4	29 53.55	+ 0.04	8.44	21 30 2.03	3.92
	B. A. C. 7524 . .	11	. .	. .	. .	. .	. .	. .	0.1	3.0	4.5	6.3	7.8	33 4.34	− 42.60	8.44	21 32 30.18	1.80
	* + 36° 57′ . .	12	. .	. .	. .	31.1	32.4	33.9	35.3	36.6	. .	. .	. .	36 33.86	0.36	8.44	21 36 41.94	1.93
	* + 37° 18′ . .	13	. .	. .	. .	19.8	21.0	22.7	24.1	25.4	. .	. .	. .	37 22.60	0.37	8.44	21 37 30.67	1.91
	* + 37° 25′ . .	†14	. .	. .	. .	40.6	42.0	43.6	45.0	46.2	58.4	59.8	2.4	37 49.75	6.55	8.44	21 37 51.64	+ 1.91
	78 Draconis . . .	15	. .	. .	. .	2.5	5.7	13.3	59.6	6.5	10.4	15.2	18.8	42 46.50	1 22.81	8.45	21 41 32.14	− 3.97
	* + 38° 57′ . .	16	. .	. .	. .	. .	. .	. .	58.9	1.6	3.1	5.0	6.4	46 3.00	42.76	8.45	21 45 28.69	+ 1.83
	B. A. C. 7614 . .	17	. .	. .	. .	47.5	48.9	51.8	10.6	13.4	14.9	16.8	18.2	46 5.26	− 33.25	8.45	21 45 40.46	1.83
	O. Arg. S. 21759 .	18	46.9	49.0	50.0	. .	. .	. .	. .	. .	15.7	16.7	19.0	50 2.88	+ 0.06	8.45	21 50 11.39	3.91
	O. Arg. S. 21760 .	19	. .	. .	. .	1.3	2.4	3.5	4.7	6.0	. .	. .	. .	50 3.58	+ 0.06	8.45	21 50 12.09	3.91
	Weisse (2) 1331 .	20	. .	. .	. .	24.9	26.2	27.6	29.0	30.3	41.8	43.1	45.7	54 33.58	− 6.32	8.45	21 54 35.71	2.16
	* − 19° 43′ . .	21	14.0	16.3	17.4	27.7	28.8	29.9	31.2	32.3	42.6	43.7	45.7	57 29.96	+ 0.05	8.45	21 57 38.46	3.84
	O. Arg. S. 21904 .	22	5.2	7.4	8.5	18.4	19.3	20.6	21.9	23.1	32.8	34.2	36.3	0 20.70	+ 0.02	8.45	22 0 29.17	3.74
	B. A. C. 7753 . .	23	34.3	36.8	38.0	49.7	50.9	52.4	53.8	55.0	6.6	8.0	10.5	6 52.36	− 0.32	8.45	22 7 0.49	2.21
	Weisse (2) 271 .	24	41.7	44.4	45.7	58.1	59.4	1.0	2.6	3.8	16.0	17.4	20.2	12 0.94	0.38	8.45	22 12 9.01	1.98
	π Aquarii . . .	25	11.5	13.5	14.6	24.2	25.3	26.4	27.6	28.7	38.4	39.5	41.6	18 26.48	0.07	8.46	22 18 34.87	3.38
	* + 6° 34′ . .	26	54.9	57.0	58.2	7.7	8.8	10.0	11.2	12.3	21.9	22.9	25.1	24 10.00	0.11	8.46	22 24 18.35	3.24
	* + 37° 27′ . .	27	. .	. .	. .	38.5	39.8	42.5	0.9	3.5	5.2	7.0	8.4	27 55.72	32.58	+ 8.46	22 27 31.60	2.12
Sept. 7	α Ophiuchi . . .	28	51.3	53.3	54.5	4.4	5.4	6.7	7.9	8.8	18.7	19.8	22.0	29 6.62	− 0.15	−16.51	17 28 49.96	4.03
	B. A. C. 6045 . .	29	35.4	37.8	39.2	50.8	52.0	53.6	54.9	56.2	7.9	9.2	11.8	45 53.53	+ 0.16	16.51	17 45 37.18	5.68
	B. A. C. 6062 . .	30	. .	. .	. .	2.0	3.4	5.0	6.7	7.9	20.4	21.8	24.6	48 11.48	− 6.88	16.51	17 47 48.09	2.60
	B. A. C. 6081 . .	31	11.7	13.7	14.9	25.2	26.2	27.5	28.8	29.8	40.1	41.3	43.5	52 27.52	+ 0.05	16.51	17 52 11.06	5.04
	* − 27° 49′ . .	32	. .	. .	. .	51.7	52.7	54.1	55.4	56.6	7.5	8.7	11.0	54 59.71	− 5.52	16.51	17 54 37.68	5.33
	B. A. C. 6144 . .	33	27.4	29.7	31.0	42.2	43.4	44.9	46.4	47.5	58.8	0.2	2.6	1 44.92	+ 0.14	16.51	18 1 28.55	5.48
	* − 17° 27′ . .	34	6.1	8.3	9.4	19.5	20.6	21.8	23.1	24.2	34.3	35.4	37.6	5 21.85	+ 0.03	16.51	18 5 5.37	4.87
	Lalande 33602 .	35	. .	. .	. .	50.3	51.6	53.1	54.6	55.8	7.6	8.8	11.4	8 59.15	− 6.42	16.52	18 8 36.21	2.72
	* + 36° 59′ . .	36	9.1	11.8	13.0	25.2	26.4	28.0	29.5	30.8	42.7	44.0	46.7	12 27.93	− 0.36	16.52	18 12 11.05	2.59
	O. Arg. S. 18151 .	37	. .	. .	. .	12.9	14.3	15.4	16.7	18.0	. .	. .	. .	16 15.46	+ 0.10	16.52	18 15 59.04	5.17
	O. Arg. S. 18160 .	38	28.1	30.6	31.6	42.6	43.8	45.0	46.5	47.6	58.1	59.4	1.9	16 45.02	0.10	16.52	18 16 28.60	5.18
	B. A. C. 6264 . .	†39	53.9	56.2	57.4	. .	. .	. .	. .	. .	23.7	25.0	27.3	20 10.58	0.10	16.52	18 19 54.16	5.16
	O. Arg. S. 18234 .	40	. .	. .	. .	10.8	12.0	13.3	14.7	16.0	. .	. .	. .	20 13.36	0.10	16.52	18 19 56.94	5.16
	* − 33° 4′ . .	41	. .	. .	. .	48.9	50.0	51.5	52.8	53.9	. .	. .	. .	24 51.42	0.14	16.52	18 24 35.04	5.44
	B. A. C. 6321 . .	42	35.5	37.9	38.8	50.1	51.4	52.8	54.0	55.3	6.4	7.6	10.0	27 52.71	0.12	16.52	18 27 36.31	5.24
	O. Arg. S. 18495 .	43	3.0	5.0	6.2	16.3	17.4	18.6	19.8	20.9	30.9	31.9	34.2	31 18.56	0.03	16.52	18 31 2.07	4.71
	O. Arg. S. 18536 .	44	32.0	34.1	35.3	46.0	47.1	48.5	49.7	50.8	1.6	2.7	5.0	33 48.44	0.09	16.52	18 33 32.01	5.02
	O. Arg. S. 18587 .	45	42.9	45.1	46.3	56.6	57.8	59.1	0.3	1.4	11.7	12.9	15.1	35 59.02	0.06	16.52	18 35 42.56	4.86
	O. Arg. S. 18609 .	46	48.3	50.7	51.7	2.2	3.2	4.5	5.8	6.8	17.1	18.2	20.5	37 4.45	0.06	16.52	18 36 47.99	4.85
	Lacaille 7865 . .	47	31.4	33.9	35.1	46.8	47.9	49.4	50.9	52.3	4.1	5.4	7.9	40 49.55	0.16	16.52	18 40 33.19	5.40
	O. Arg. S. 18735 .	48	56.8	59.2	0.4	10.7	11.7	13.2	14.5	15.5	25.8	26.9	29.3	43 13.09	0.17	16.52	18 42 56.64	4.87
	33 Sagittarii . . .	49	. .	. .	. .	23.0	24.1	25.4	26.8	27.9	. .	. .	. .	46 25.44	0.06	16.52	18 46 8.98	4.82
	B. A. C. 6450 . .	50	37.2	39.5	40.6	50.9	52.0	53.5	54.8	56.0	6.3	7.6	9.8	48 53.47	+ 0.07	−16.52	18 48 37.02	+ 4.87

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Sept. 7, 19.8	− 16.52	− 0.003	− 0.35	− 0.07

14. Very red.
39. Northward.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Sept. 7	Weisse 1301	†1	8.9	11.0	12.0	21.8	22.9	24.1	25.3	26.3	35.9	37.1	39.2	52 24.05	− 0.02	−16.52	18 52 7.51	+ 4.32
Y.	O. Arg. S. 18978	2	. .	. .	. .	7.8	8.9	10.0	11.3	12.4	. .	. .	. .	55 10.08	+ 0.05	16.52	18 54 53.61	4.74
	O. Arg. S. 18979	3	55.4	57.6	58.8	. .	. .	. .	. .	. .	24.2	25.2	27.4	55 11.43	0.05	16.52	18 54 54.96	4.74
	B. A. C. 6515	4	7.5	9.8	10.9	21.9	22.8	24.3	25.7	26.7	37.6	38.9	41.2	58 24.30	0.10	16.52	18 58 7.88	4.98
	* − 21° 38′	5	28.6	30.1	31.4	32.9	35.4	. .	40.1	42.4	43.7	45.3	46.5	2 7.64	0.43	16.52	19 1 51.55	4.74
	O. Arg. S. 19155	6	53.7	55.9	57.0	7.4	8.5	9.8	11.0	12.1	22.5	23.7	26.0	2 9.78	0.06	16.52	19 1 53.32	4.74
	O. Arg. S. 19306	7	5.9	8.1	9.3	19.6	20.8	22.1	23.4	24.5	34.9	36.0	38.3	8 22.08	+ 0.06	16.52	19 8 5.62	4.73
	O. Arg. S. 19319	8	. .	. .	. .	59.6	0.7	2.0	3.3	4.3	14.8	15.9	18.2	9 7.35	− 5.31	16.52	19 8 45.52	4.72
	Groombridge 1710	9	1.2	4.2	5.6	19.8	21.3	23.1	24.7	26.3	40.3	41.9	45.0	13 23.04	− 0.46	16.52	19 13 6.06	1.39
	* + 36° 54′	10	49.6	52.5	53.6	5.7	7.1	8.6	10.1	11.3	. .	. .	. .	20 2.31	+ 5.86	16.52	19 19 51.65	2.17
	* + 36° 57′	11	. .	. .	. .	29.5	31.0	33.5	52.0	54.7	56.3	58.0	59.4	20 46.80	− 32.36	16.52	19 19 57.92	2.16
	O. Arg. S. 19693	12	32.0	34.3	35.4	45.8	46.8	48.0	49.3	50.4	0.6	1.7	3.9	25 48.02	+ 0.05	16.52	19 25 31.55	4.55
	κ Aquilæ	13	51.1	53.3	54.3	3.9	5.0	6.2	7.4	8.5	18.1	19.2	21.3	30 6.21	− 0.03	16.52	19 29 49.66	4.10
	* − 29° 9′	14	38.1	40.5	41.6	52.6	53.8	55.2	56.5	57.7	8.9	9.9	12.2	33 55.18	+ 0.11	16.52	19 33 38.77	4.85
	O. Arg. S. 19915	15	2.5	4.7	5.9	16.5	17.8	19.2	20.5	21.6	32.6	33.7	35.7	37 19.15	0.10	16.52	19 37 2.73	4.75
	O. Arg. S. 19956	16	43.1	45.4	46.5	56.7	57.7	59.1	0.4	1.6	11.9	13.2	15.5	39 59.19	0.06	16.52	19 39 42.73	4.56
	* − 22° 33′	17	27.4	29.6	30.8	41.3	42.4	43.6	44.8	45.8	56.6	57.6	59.9	42 43.62	0.07	16.52	19 42 27.17	4.56
	* − 22° 29′	†18	53.7	55.9	57.1	7.4	8.5	9.9	11.3	12.3	22.9	23.9	26.0	44 9.90	+ 0.07	16.52	19 43 53.45	4.55
	O. Arg. S. 20078	19	. .	. .	. .	44.5	45.5	46.8	48.3	49.4	0.3	1.6	4.0	48 52.55	− 5.52	16.52	19 48 30.51	+ 4.72
	λ Ursæ Minoris	20	. .	. .	. .	24.0	19.0	25.0	28.0	20.0	. .	. .	. .	57 23.20	− 22.10	16.52	. . . .	− 147.27
	* − 19° 47′	21	41.7	43.9	45.1	55.3	56.4	57.7	58.9	59.9	10.3	11.3	13.6	1 57.65	+ 0.05	16.52	20 1 41.18	+ 4.47
	* − 14° 3′	22	. .	. .	. .	21.3	22.5	24.5	39.8	41.9	43.2	44.7	45.8	5 35.46	− 26.36	16.52	20 4 52.58	4.17
	* − 14° 3′	23	. .	. .	. .	4.1	5.2	6.3	7.5	8.5	. .	. .	. .	6 6.32	+ 0.01	16.52	20 5 49.83	4.17
	Weisse (2) 329	24	9.1	11.7	13.1	25.5	26.7	28.3	29.8	31.0	43.6	44.9	47.8	9 28.32	− 0.38	16.52	20 9 11.42	1.86
	Weisse (2) 412	25	33.3	35.6	37.2	49.2	50.4	52.0	53.6	54.7	6.5	7.9	10.6	11 51.91	0.35	16.52	20 11 35.04	2.00
	B. A. C. 7001	26	. .	11.8	13.3	25.7	27.0	28.5	30.0	31.4	43.6	45.0	. .	14 28.48	− 0.37	16.52	20 14 11.59	1.86
	* − 19° 11′	27	59.8	1.9	3.0	13.4	14.5	15.8	16.9	18.1	28.2	29.4	31.6	17 15.69	+ 9.04	16.52	20 16 59.21	4.28
	Weisse 498	28	7.5	9.8	10.9	20.7	21.8	23.0	24.2	25.3	35.3	36.4	38.5	21 23.04	0.01	16.52	20 21 6.53	4.08
	Weisse 499	29	47.2	48.4	49.7	51.0	53.5	. .	55.1	57.3	58.6	0.0	1.2	21 24.20	+ 0.37	16.52	20 21 8.05	4.08
	ε Delphini	30	58.4	0.4	1.5	11.4	12.4	13.6	14.8	15.7	25.6	26.7	28.8	27 13.57	− 0.14	16.52	20 26 56.91	3.25
	Lalande 40400	31	14.9	17.5	18.8	31.3	32.6	34.0	35.5	36.9	49.4	50.9	53.4	47 34.11	0.38	16.52	20 47 17.21	1.79
	* + 38° 51′	32	20.8	23.5	25.0	37.3	38.7	40.2	41.8	43.0	55.3	56.8	59.6	48 40.18	− 0.38	16.52	20 48 23.28	1.30
	O. Arg. S. 21007	33	43.1	45.3	46.5	57.4	58.6	59.8	1.2	2.4	13.4	14.4	16.7	51 59.89	+ 0.10	16.52	20 51 43.47	4.35
	* + 37° 8′	34	44.1	46.8	48.2	0.3	1.5	3.1	4.6	5.7	17.8	19.3	21.8	56 3.02	− 0.36	16.52	20 55 46.14	1.92
	O. Arg. S. 21115	35	. .	. .	. .	44.6	45.7	46.9	48.1	49.3	59.3	0.4	2.5	59 52.10	5.15	16.52	20 59 30.43	3.99
	Lalande 41086	36	59.2	1.8	3.2	15.5	16.7	18.4	19.8	20.2	33.3	34.7	37.5	4 18.21	0.37	16.52	21 4 1.32	1.85
	* + 35° 46′	37	46.5	49.0	50.2	2.1	3.3	4.9	6.5	7.5	19.6	20.7	23.3	6 4.87	0.34	16.52	21 5 48.01	2.01
	Weisse (2) 433	38	28.6	31.3	32.6	44.7	46.0	47.4	48.9	50.3	2.2	3.6	6.3	18 47.45	0.35	16.52	21 18 30.58	1.96
	70 Cygni	39	59.5	2.0	3.3	15.3	16.6	18.1	19.6	20.8	32.7	34.2	36.8	22 18.08	− 0.35	16.52	21 22 1.21	1.97
	O. Arg. S. 21452	40	5.2	7.3	8.5	19.2	20.4	21.7	22.9	24.0	34.7	35.9	38.2	25 21.64	+ 0.08	16.52	21 25 5.20	4.10
	* − 18° 59′	41	. .	. .	. .	32.7	33.9	35.9	51.6	53.8	55.1	56.6	57.9	29 47.19	− 27.01	16.52	21 29 3.66	3.95
	B. A. C. 7507	42	. .	. .	. .	30.9	32.2	34.3	49.9	52.2	53.5	54.9	56.0	30 45.49	27.02	16.53	21 30 1.94	3.94
	Weisse 768	43	7.9	10.0	11.1	20.9	22.0	23.2	24.4	25.4	35.3	36.3	38.6	33 23.19	0.00	16.53	21 33 6.66	3.74
	Weisse 801	44	5.6	7.9	8.9	18.9	19.9	21.0	22.1	23.2	33.1	34.2	36.4	34 21.02	0.00	16.53	21 34 4.49	3.74
	Lalande 42355	45	33.6	35.8	36.9	46.6	47.6	48.8	50.0	51.0	0.8	1.8	3.8	37 48.79	− 0.04	16.53	21 37 32.22	3.58
	O. Arg. S. 21635	46	2.1	4.6	5.6	16.1	17.2	18.6	19.8	21.0	31.6	32.8	34.8	40 18.56	+ 0.08	16.53	21 40 2.11	4.02
	* − 29° 15′	47	28.5	30.5	31.7	42.5	43.4	44.6	46.0	47.1	57.8	58.9	1.3	41 44.75	0.11	16.53	21 41 28.33	4.12
	μ Capricorni	48	9.7	11.7	12.8	22.7	23.8	25.1	26.3	27.4	37.4	38.4	40.6	46 25.08	0.02	16.53	21 46 8.57	3.76
10	γ^{2} Sagittarii	49	22.1	24.6	25.7	36.9	38.1	39.6	40.9	42.2	53.2	54.4	56.8	57 39.50	0.10	17.65	17 57 21.95	5.48
	100 Herculis, (1st *)	†50	9.1	10.5	11.9	13.2	16.0	. .	22.8	25.1	26.5	28.0	29.4	2 49.25	+ 0.16	−17.65	18 2 31.76	+ 3.30

1. Preceded by star of 9th mag. to southward.
18. Faint.
50. Southward.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Sept. 7, 19.8	− 16.52	− 0.003	− 0.35	− 0.07

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Sept. 10	100 Herculis, (2d *) .	†1	33.0	35.4	36.6	47.3	48.4	49.7	51.0	52.2	2.8	4.2	6.5	2 49.74	− 0.23	−17.65	18 2 31.86	+ 3.30
Y.	μ Sagittarii . . .	2	55.8	58.0	59.1	9.4	10.7	11.9	13.1	14.3	24.5	25.8	28.0	6 11.87	+ 0.05	17.65	18 5 54.27	5.06
	Lalande 33592 .	3	. .	. .	. .	. .	. .	. .	9.2	11.8	13.4	15.2	16.7	9 13.26	− 42.49	17.66	18 8 13.11	2.59
	B. A. C. 6193 . .	4	. .	. .	. .	. .	. .	. .	38.0	40.6	42.4	44.2	45.7	9 42.18	− 42.59	17.66	18 8 41.93	2.58
	Taylor 8458 . .	5	10.9	13.2	14.4	25.0	26.0	27.4	28.8	29.9	40.6	41.9	44.2	14 27.48	+ 0.08	17.66	18 14 9.90	5.23
	* − 26° 31′ . .	6	. .	. .	. .	57.4	58.4	0.8	17.3	19.8	21.0	22.6	23.7	15 12.62	− 28.50	17.66	18 14 26.46	5.23
	* − 26° 29′ . .	7	31.9	41.5	42.6	53.3	54.5	55.9	57.2	58.2	9.0	10.4	12.7	15 55.85	+ 0.08	17.66	18 15 38.27	5.22
	O. Arg. S. 18151 .	8	. .	. .	. .	29.8	31.1	33.4	49.9	52.1	53.6	55.2	56.4	16 45.19	− 28.50	17.66	18 15 59.03	5.22
	(* 18) Washington	9	. .	. .	. .	10.7	11.7	14.0	30.0	32.3	33.4	35.0	36.3	20 25.42	27.62	17.66	18 19 40.14	5.04
	* − 22° 32′ . .	10	. .	. .	. .	46.4	47.5	49.8	5.3	7.9	9.3	10.8	12.0	21 1.12	− 27.63	17.66	18 20 15.83	5.04
	θ Coronæ Australis	11	4.1	6.9	8.4	21.5	22.9	24.6	26.0	27.5	40.5	42.0	45.0	24 24.49	+ 0.19	17.66	18 24 7.02	5.93
	O. Arg. S. 18413 .	12	27.3	29.5	30.7	41.0	42.2	43.5	44.8	45.8	56.3	57.5	59.8	27 43.49	0.05	17.66	18 27 25.88	4.90
	O. Arg. S. 18495 .	13	4.1	6.3	7.4	17.4	18.5	19.7	20.9	22.0	32.0	33.3	35.4	31 19.73	+ 0.02	17.66	18 31 2.09	4.76
	Lamont 6333 . .	14	55.4	57.4	58.5	8.1	9.1	10.4	11.6	12.6	22.2	23.3	25.4	38 10.36	− 0.06	17.67	18 37 52.63	4.18
	Brisbane 6501 . .	†15	. .	. .	. .	. .	. .	. .	46.0	48.7	50.5	52.8	54.6	42 50.52	− 46.11	17.67	18 41 46.74	5.95
	B. A. C. 6439 . .	16	6.5	8.8	9.9	21.0	22.3	23.6	24.8	26.1	37.1	38.4	40.9	47 23.58	+ 0.10	17.67	18 47 6.01	5.17
	B. A. C. 6479 . .	17	22.0	24.4	25.6	36.1	37.3	38.7	39.9	41.1	51.7	53.1	55.3	52 38.65	0.06	17.67	18 52 21.04	4.97
	O. Arg. S. 18978 .	18	55.3	57.5	58.7	8.9	10.0	11.3	12.5	13.6	23.8	25.0	27.3	55 11.26	0.04	17.67	18 54 53.63	4.79
	O. Arg. S. 18979 .	19	33.6	35.0	36.4	37.6	40.2	. .	44.3	46.6	48.0	49.5	50.8	55 12.20	0.41	17.67	18 54 54.94	4.79
	* − 23° 28′ . .	20	37.1	39.1	40.4	50.8	52.0	53.3	54.6	55.6	6.2	7.4	9.7	58 53.29	+ 0.06	17.67	18 58 35.68	4.88
	* − 30° 50′ . .	21	. .	. .	. .	59.0	0.2	1.4	2.8	4.1	15.3	16.5	19.0	1 7.29	− 5.68	17.68	19 0 43.93	5.16
	O. Arg. S. 19188 .	22	59.8	2.2	3.5	14.4	15.6	17.0	18.4	19.5	30.7	31.8	34.3	3 17.02	+ 0.10	17.68	19 2 59.44	5.10
	* − 8° 51′ . .	†23	. .	. .	. .	2.0	3.0	5.2	20.1	22.3	23.6	25.0	26.1	10 15.91	− 25.92	17.68	19 9 32.31	4.29
	* − 10° 13′ . .	24	5.5	7.5	8.6	18.4	19.5	20.7	21.9	22.8	32.7	33.8	35.9	13 20.66	− 0.02	17.68	19 13 2.96	4.32
	O. Arg. S. 19472 .	25	. .	55.4	56.6	6.8	7.8	9.0	10.4	11.4	21.5	22.7	. .	16 9.07	+ 0.03	17.68	19 15 51.42	4.59
	δ Aquilæ	26	55.6	57.6	58.7	8.4	9.4	10.6	11.8	12.7	22.3	23.5	25.5	19 10.55	− 0.09	17.68	19 18 52.78	3.85
	O. Arg. S. 19631 .	27	29.8	32.0	33.2	43.3	44.5	45.7	46.9	48.0	58.3	59.4	1.6	22 45.70	+ 0.04	17.68	19 22 28.06	4.61
	O. Arg. S. 19665 .	28	2.9	5.0	6.1	16.4	17.5	18.8	20.0	21.1	31.4	32.5	34.8	24 18.77	0.04	17.68	19 24 1.13	4.60
	O. Arg. S. 19753 .	29	34.7	36.8	37.9	48.0	49.2	50.5	51.7	52.8	3.0	4.1	6.4	28 50.46	0.04	17.69	19 28 32.81	4.56
	O. Arg. S. 19837 .	30	13.3	15.5	16.7	27.4	28.5	29.8	31.0	32.1	42.9	44.1	46.4	32 29.79	+ 0.07	17.69	19 32 12.17	4.75
	Weisse 875 . .	31	45.9	48.0	49.0	58.9	0.0	1.2	2.4	3.5	13.3	14.4	16.6	35 1.20	− 0.14	17.69	19 34 43.37	3.44
	Weisse 886 . .	32	. .	. .	. .	22.2	23.4	24.6	25.8	26.9	36.6	37.7	39.9	35 29.64	− 5.22	17.69	19 35 6.73	3.43
	Lacaille 8216 . .	33	11.3	14.1	15.8	. . .	. .	. .	. .	. .	47.8	49.4	52.1	39 31.75	+ 0.19	17.69	19 39 14.25	5.42
	* − 22° 33′ . .	34	28.7	30.8	32.0	42.4	43.4	44.7	46.0	47.1	57.7	58.8	1.0	42 44.78	+ 0.06	17.69	19 42 27.15	+ 4.60
	λ Ursæ Minoris . .	35	. .	. .	. .	. .	. .	. .	. .	17.0	. .	46.0	36.0	6 13.00	− 9 14.03	17.70	. . . .	− 143.95
	34 Cygni	36	56.8	59.4	0.7	12.7	14.1	15.7	17.3	18.4	30.6	31.9	34.5	13 15.65	0.33	17.70	20 12 57.62	+ 1.98
	B. A. C. 7014	37	43.3	45.4	46.5	56.1	57.2	58.4	59.6	0.6	10.2	11.4	13.5	16 58.38	− 0.10	17.70	20 16 40.58	3.53
	Weisse 498 . .	†38	8.6	10.8	11.9	21.8	22.9	24.2	25.5	26.5	36.3	37.4	39.6	21 24.14	0.00	17.70	20 21 6.44	4.20
	Weisse 499 . .	†39	48.2	49.4	50.7	51.9	54.5	. .	56.2	58.4	59.8	1.1	2.3	21 25.25	+ 0.36	17.70	20 21 7.91	4.20
	Weisse 610 . .	40	. .	. .	. .	. .	. .	. .	10.0	12.1	13.4	14.7	15.9	26 13.22	− 33.37	17.71	20 25 22.14	3.94
	Weisse 729, (1st *)	†41	42.2	44.2	45.3	55.1	56.3	57.4	58.6	59.8	9.6	10.8	12.9	29 57.47	0.00	17.71	20 29 39.76	4.21
	Weisse 729, (2d *)	†42	20.3	21.6	22.8	24.1	26.6	. .	28.2	30.4	31.6	33.1	34.3	29 57.30	+ 0.36	17.71	20 29 39.95	4.21
	* − 9° 6′ . . .	†43	52.7	54.8	56.0	5.7	6.7	8.0	9.2	10.2	19.9	21.0	23.2	34 7.95	− 0.03	17.71	20 33 50.21	3.92
	Weisse 924 . .	44	52.8	54.7	55.9	5.5	6.5	7.7	8.9	9.9	19.4	20.6	22.8	37 7.70	0.07	17.71	20 36 49.92	3.62
	O. Arg. S. 20839 .	45	. .	. .	. .	22.4	23.5	24.8	26.0	27.1	37.3	38.6	40.8	39 30.06	− 5.25	17.71	20 39 7.10	4.22
	* − 21° 31′ . .	46	. .	58.0	59.2	9.6	10.6	11.9	13.2	14.3	24.7	25.9	. .	44 11.93	+ 0.05	17.71	20 43 54.27	4.24
	O. Arg. S. 20951 .	47	. .	41.4	42.5	52.5	53.6	54.8	56.0	57.1	7.1	8.3	. .	47 54.81	+ 0.01	17.71	20 47 37.11	4.06
	* − 0° 2′ . . .	48	. .	. .	. .	40.3	41.4	43.5	58.2	0.4	1.5	2.8	4.1	50 54.02	− 25.64	17.71	20 50 10.67	3.58
	Weisse 1269 . .	49	. .	. .	. .	. .	. .	. .	15.4	17.5	18.7	20.1	21.3	51 18.60	− 33.03	17.71	20 50 27.86	3.58
	O. Arg. S. 21083 .	50	15.1	17.3	18.5	28.5	29.6	30.7	31.9	33.0	43.2	44.2	46.5	57 30.77	+ 0.02	−17.72	20 57 13.07	+ 4.02

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Sept. 10, 19.7	− 17.69	− 0.022	− 0.31	− 0.07

1. Northward.
15. Faint.
23. Faint.
38. Southward.
39. Northward.
41. Southward.
42. Northward.
43. Another star in field.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868. Sept. 10 Y.	O. Arg. S. 21115 .	1	32.5	34.5	35.7	45.7	46.7	48.0	49.3	50.4	0.5	1.6	3.7	59 48.05	+ 0.02	−17.72	20 59 30.35	+ 4.01
	O.Arg.S.21189(1st *)	2	. .	. .	. .	14.0	15.3	16.4	17.6	18.7	. .	. .	. .	4 16.40	0.06	17.72	21 3 58.74	4.20
	O.Arg.S.21189(2d *)	3	0.6	2.7	4.0	. .	. .	. .	. .	. .	29.9	31.0	33.3	4 16.92	+ 0.06	17.72	21 3 59.26	4.20
	ζ Cygni	4	22.5	25.0	26.2	37.3	38.5	39.8	41.2	42.3	53.5	54.6	57.0	7 39.81	− 0.26	17.72	21 7 21.83	2.39
	* − 36° 39′ . .	5	. .	. .	. .	32.3	33.8	35.2	36.7	37.9	. .	. .	. .	10 35.18	0.32	17.72	21 10 17.14	1.99
	Lalande 41341 .	6	. .	. .	. .	52.2	53.6	56.3	14.6	17.2	18.7	20.6	22.0	11 9.40	32.21	17.72	21 10 19.47	1.98
	Weisse (2) 322 .	7	7.4	10.1	11.6	23.8	25.2	26.7	28.1	29.5	41.8	43.2	45.9	14 26.66	0.33	17.72	21 14 8.61	1.89
	Weisse (2) 328 .	8	. .	. .	. .	58.9	0.3	3.0	21.6	24.4	25.9	27.8	29.1	15 16.38	32.89	17.72	21 14 25.77	1.89
	* + 38° 21′ . .	9	58.4	1.0	2.4	14.7	16.0	17.6	19.0	20.5	32.5	34.0	36.8	16 17.54	0.33	17.72	21 15 59.49	1.88
	* + 35° 16′ . .	10	54.1	56.6	57.8	7.6	10.9	12.4	13.8	15.1	26.8	28.1	30.7	21 12.35	− 0.31	17.73	21 20 54.31	2.08
	O. Arg. S. 21443 .	11	6.0	8.4	9.4	19.8	20.9	22.2	23.5	24.6	35.2	36.3	38.5	24 22.25	+ 0.05	17.73	21 24 4.57	4.07
	B. A. C. 7497 . .	12	5.3	7.3	8.4	18.0	19.0	20.3	21.4	22.5	32.0	33.1	35.3	28 20.24	− 0.08	17.73	21 28 2.43	3.44
	O. Arg. S. 21525 .	13	41.9	44.1	45.2	55.4	56.4	57.6	58.8	59.9	10.0	11.2	13.4	30 57.63	+ 0.03	17.73	21 30 39.93	3.92
	O. Arg. S. 21562 .	14	6.2	8.5	9.7	20.1	21.3	22.6	23.8	24.9	35.3	36.5	38.8	34 22.52	0.06	17.73	21 34 4.85	4.02
	ι Piscis Australis .	15	7.2	9.7	10.8	22.5	23.7	25.1	26.7	27.8	39.4	40.7	43.1	37 25.15	0.13	17.73	21 37 7.55	4.25
	* − 17° 53′ . .	16	23.9	26.1	27.3	37.4	38.5	39.7	41.0	42.1	52.2	53.3	55.6	40 39.74	0.03	17.73	21 40 22.04	3.88
	O. Arg. S. 21687 .	17	58.5	1.0	2.3	12.9	14.2	15.5	16.8	18.0	28.9	29.9	32.4	44 15.49	+ 0.09	17.73	21 43 57.85	4.09
	* − 11° 19′ . .	18	2.5	4.6	5.7	15.5	16.6	17.8	19.0	20.0	30.0	31.0	33.1	47 17.80	− 0.01	17.74	21 47 0.05	3.71
	O. Arg. S. 21759 .	†19	12.8	15.2	16.4	. .	. .	. .	. .	. .	41.8	43.0	45.3	50 29.08	+ 0.05	17.74	21 50 11.39	3.92
	O. Arg. S. 21760 .	20	. .	. .	. .	27.4	28.5	29.8	31.0	32.2	. .	. .	. .	50 29.78	0.05	17.74	21 50 12.09	3.92
	O. Arg. S. 21800 .	21	39.3	41.5	42.5	52.8	53.9	55.1	56.3	57.5	7.9	9.0	11.4	53 55.20	0.05	17.74	21 53 37.51	3.89
	* − 26° 17′ . .	22	55.1	57.4	58.5	9.3	10.4	11.7	13.0	14.1	25.0	26.3	28.5	56 11.75	0.08	17.74	21 55 54.09	3.99
	* − 20° 27′ . .	23	38.9	41.1	42.3	52.5	53.6	54.8	56.1	57.3	7.5	8.7	11.0	58 54.89	+ 0.04	17.74	21 58 37.19	3.86
	π^1 Pegasi	24	25.9	28.5	29.6	41.0	42.4	43.7	45.2	46.4	57.6	59.0	1.7	3 43.73	− 0.28	17.74	22 3 25.71	2.30
	θ Aquarii . . .	25	57.3	59.5	0.5	10.3	11.3	12.5	13.7	14.7	24.5	25.6	27.7	10 12.51	0.03	17.74	22 9 54.74	3.59
	Lalande 43576 .	†26	10.9	13.5	14.8	. .	. .	. .	. .	. .	44.7	46.2	48.7	13 29.80	0.32	17.75	22 13 11.73	2.08
	Lalande 43577 .	27	. .	. .	. .	27.4	28.6	30.2	31.7	33.0	. .	. .	. .	13 30.18	− 0.32	17.75	22 13 12.11	2.08
	O. Arg. S. 22117 .	28	35.4	37.7	38.7	49.0	50.2	51.4	52.7	53.8	4.2	5.3	7.7	16 51.46	+ 0.05	17.75	22 16 33.76	3.80
	Weisse 398 . .	29	46.0	48.2	49.2	59.1	0.1	1.4	2.6	3.6	13.4	14.5	16.7	20 1.35	− 0.01	17.75	22 19 43.59	3.62
	O. Arg. S. 22197 .	30	. .	. .	. .	16.9	18.1	19.3	20.6	21.7	. .	. .	. .	24 19.32	+ 0.06	17.75	22 24 1.63	3.81
16	μ Sagittarii . . .	31	56.0	58.2	59.3	9.6	10.8	. .	13.3	14.4	24.7	25.9	28.2	6 12.04	+ 0.07	17.92	. . . .	5.17
	Lalande 33602 .	32	. .	. .	. .	51.6	52.8	54.3	55.9	57.0	8.8	10.1	12.7	9 0.40	− 6.43	17.92	18 8 36.05	2.94
	Lalande 33748 .	33	40.9	43.3	44.5	54.6	55.7	57.0	58.3	59.4	9.5	10.7	12.9	13 56.98	+ 0.05	17.92	18 13 39.11	5.05
	Lacaille 7695 . .	34	30.0	32.6	33.9	45.7	47.0	48.5	50.0	51.3	3.3	4.6	7.3	16 48.56	0.18	17.93	18 16 30.81	5.77
	B. A. C. 6283 . .	35	11.7	14.1	15.5	26.3	27.6	28.8	30.1	31.2	42.4	43.7	46.1	22 28.86	+ 0.12	17.93	18 22 11.05	5.40
	Lalande 34274 .	36	. .	. .	. .	45.6	47.1	49.7	7.8	10.5	12.0	13.7	15.0	25 2.68	− 31.84	17.93	18 24 12.91	2.79
	B. A. C. 6321 . .	37	36.7	39.0	40.4	51.4	52.6	54.0	55.4	56.5	7.6	9.0	11.2	27 53.98	+ 0.13	17.93	18 27 36.18	5.42
	Lalande 34581 .	38	43.5	46.1	47.4	59.6	0.9	2.5	3.9	5.3	17.3	18.8	21.5	32 2.44	− 0.38	17.93	18 31 44.13	2.60
	B. A. C. 6363 . .	39	47.5	50.2	51.5	. .	. .	. .	. .	. .	22.5	23.9	26.7	36 7.05	+ 0.22	17.94	18 35 49.33	5.85
	Lacaille 7831 . .	40	. .	. .	. .	. .	. .	. .	47.7	50.4	52.1	53.8	55.5	36 51.90	− 42.72	17.94	18 35 51.24	5.86
	Lalande 34860 .	41	31.2	33.4	34.6	44.7	45.8	47.0	48.3	49.4	59.7	0.8	3.0	40 47.08	+ 0.06	17.94	18 40 29.20	4.92
	B. A. C. 6413 . .	42	16.8	19.1	20.3	31.5	32.6	33.9	35.4	36.5	47.6	48.8	51.2	44 33.97	0.13	17.94	18 44 16.16	5.31
	* − 33° 25′ . .	43	22.0	24.4	25.7	37.2	38.5	39.9	41.2	42.4	54.0	55.4	57.9	47 39.87	+ 0.16	17.94	18 47 22.09	5.46
	* − 33° 25′ . .	44	. .	. .	. .	15.0	16.3	18.6	36.3	38.7	40.0	41.8	43.2	48 31.24	− 30.48	17.94	18 47 42.82	5.46
	Lacaille 7926 . .	45	. .	. .	. .	. .	. .	. .	13.2	15.7	17.4	19.0	20.3	49 17.12	39.36	17.94	18 48 19.82	5.46
	γ Lyræ	46	2.3	4.8	6.0	17.5	18.7	20.1	21.6	22.7	34.0	35.5	37.9	54 20.10	0.32	17.95	18 54 1.83	2.77
	* − 8° 47′ . .	47	. .	. .	. .	13.9	15.0	16.2	17.4	18.5	. .	. .	. .	57 16.20	0.01	17.95	18 56 58.24	4.45
	Weisse 1430 . .	48	5.7	7.7	8.8	. .	. .	. .	. .	. .	32.8	33.9	36.0	57 20.82	0.01	17.95	18 57 2.86	4.45
	Lalande 36002 .	49	7.2	9.8	11.2	23.4	24.7	26.4	27.8	29.2	41.5	42.9	45.5	4 26.33	− 0.38	17.95	19 4 8.00	2.36
	Lalande 36229 .	50	32.5	34.2	35.8	37.3	40.5	. .	57.3	0.0	1.6	3.4	4.9	9 18.75	+ 0.05	−17.95	19 9 0.85	+ 2.30

19. Northward.
26. Southward.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Sept. 16, 19.3	− 17.96	− 0.033	− 0.37	− 0.07

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868. Sept. 16 Y.	* + 38° 49′ . .	1	2.8	5.5	6.8	19.1	20.5	22.1	23.7	24.8	37.3	38.7	41.2	9 22.05	− 0.39	−17.95	19 9 3.71	+ 2.30
	κ Aquilæ . . .	2	52.3	54.6	55.6	5.3	6.3	7.5	8.6	9.7	19.4	20.5	22.6	30 7.49	− 0.03	17.97	. . . .	4.24
	O. Arg. S. 19915 .	†3	3.5	5.8	6.9	17.8	19.0	20.3	21.6	22.7	. .	. .	. .	37 14.70	+ 5.70	17.97	19 37 2.43	4.89
	* − 27° 25′ . .	4	22.6	24.9	26.0	37.0	38.1	39.4	40.8	41.9	52.9	54.0	56.3	40 39.45	0.11	17.97	19 40 21.59	4.88
	O. Arg. S. 19990 .	5	26.1	28.5	29.6	40.5	41.7	42.9	44.3	45.6	56.4	57.6	59.8	42 43.00	+ 0.11	17.97	19 42 25.14	4.88
	O. Arg. S. 19997 .	6	. .	. .	. .	12.0	13.3	15.7	32.4	34.8	36.1	37.8	39.0	43 27.64	− 28.76	17.97	19 42 40.91	4.88
	Weisse 1205 . .	7	. .	. .	. .	44.6	45.7	46.8	48.0	49.2	. .	. .	. .	48 46.86	0.01	17.98	19 48 28.87	4.20
	Weisse 1208 . .	8	35.1	37.1	38.3	. .	. .	. .	. .	. .	2.2	3.3	5.5	48 50.25	0.01	17.98	19 48 32.26	4.20
	Lalande 38175 .	9	7.8	10.4	11.6	23.9	25.1	26.7	28.2	29.4	41.6	42.8	45.6	53 26.65	0.37	17.98	19 53 8.30	2.15
	Lalande 38202 .	10	50.2	52.8	54.1	6.4	7.6	9.1	10.7	11.9	23.9	25.5	28.1	54 9.12	− 0.37	17.98	19 53 50.77	2.15
	* − 16° 18′ . .	11	30.6	32.8	34.0	44.0	45.1	46.4	47.6	48.6	58.7	59.8	2.0	0 46.33	+ 0.04	17.98	20 0 28.39	4.38
	B. A. C. 6923 . .	12	50.8	53.0	54.2	4.1	5.3	6.7	7.9	8.9	19.1	20.4	22.7	3 6.65	0.06	17.98	20 2 48.73	4.48
	α² Capricorni . .	13	48.7	50.8	52.0	1.8	2.9	4.1	5.3	6.5	16.3	17.4	19.6	11 4.13	+ 0.02	17.99	. . . .	4.23
17	β Lyræ, (1st *) . .	14	15.4	17.8	18.9	30.4	31.8	33.2	34.6	35.8	47.3	48.8	51.2	45 33.20	− 0.33	18.86	18 45 14.01	2.81
	β Lyræ, (2d *) . .	15	51.6	53.1	54.6	55.9	58.9	. .	10.6	13.2	14.7	16.4	17.7	45 34.67	+ 0.09	18.86	18 45 15.90	2.81
	Weisse 1301 . .	16	. .	. .	. .	38.4	39.4	41.5	56.4	58.7	59.8	1.2	2.5	52 52.24	− 25.86	18.87	18 52 7.51	4.48
	υ Draconis . . .	17	. .	. .	. .	14.6	18.0	21.5	25.2	28.3	. .	. .	. .	56 21.52	1.29	18.87	18 56 1.36	2.67
	Lalande 35802 .	18	20.8	23.5	24.8	37.1	38.4	39.9	41.3	42.7	55.1	56.5	59.3	0 39.95	− 0.38	18.87	19 0 20.70	2.39
	B. A. C. 6561 . .	19	39.6	42.0	43.2	53.4	54.5	45.8	57.0	58.2	8.6	9.7	12.0	4 55.82	+ 0.07	18.88	19 4 37.01	4.90
	Lalande 36229 .	†20	33.4	35.3	36.9	38.4	41.7	. .	58.5	1.1	2.7	4.6	6.0	9 19.86	+ 0.05	18.88	19 9 1.03	2.32
	* + 38° 48′ . .	21	4.0	6.6	7.9	20.4	21.6	23.1	24.6	26.0	38.4	39.8	42.5	9 23.17	− 0.39	18.88	19 9 3.90	2.32
	* − 10° 13′ . .	22	6.5	8.7	9.6	19.4	20.4	21.6	22.8	23.8	33.5	34.7	36.8	13 21.62	0.00	18.88	19 13 2.74	4.44
	O. Arg. S. 19472 .	23	54.5	56.4	57.6	7.8	8.8	10.2	11.4	12.5	22.6	23.7	25.9	16 10.13	+ 0.05	18.89	19 15 51.29	4.70
	B. A. C. 6643 . .	†24	46.2	48.2	49.3	59.3	0.3	1.4	2.6	3.7	13.7	15.0	17.1	19 1.53	0.03	18.89	19 18 42.67	4.58
	O. Arg. S. 19623 .	25	1.9	4.2	5.3	15.5	16.6	17.8	19.1	20.3	30.4	31.5	33.7	22 17.85	+ 0.06	18.89	19 21 59.02	4.73
	O. Arg. S. 19631 .	26	. .	. .	. .	44.5	45.5	46.8	48.2	49.2	59.4	0.6	2.8	22 52.12	− 5.22	18.89	19 22 28.01	4.72
	* − 27° 21′ . .	27	43.9	46.1	47.3	. .	. .	. .	. .	. .	13.8	15.2	17.5	26 0.63	+ 0.11	18.89	19 25 41.85	4.99
	* − 27° 21′ . .	28	. .	. .	. .	59.9	0.9	2.2	3.7	4.8	. .	. .	. .	26 2.30	0.11	18.89	19 25 43.52	4.99
	O. Arg. S. 19708 .	29	. .	. .	. .	34.1	35.2	36.7	37.9	39.0	. .	. .	. .	26 36.58	0.11	18.89	19 26 17.80	4.99
	O. Arg. S. 19714 .	30	. .	. .	. .	42.3	43.4	44.6	46.0	47.2	. .	. .	. .	26 44.70	0.11	18.89	19 26 25.92	4.99
	* − 27° 24′ . .	31	40.8	43.0	44.1	55.0	56.1	57.6	58.9	0.0	11.1	12.2	14.5	28 57.57	+ 0.11	18.90	19 28 38.78	4.97
	Lalande 37300 .	32	20.3	23.0	24.2	36.6	37.9	39.3	40.9	42.2	54.5	55.7	58.5	32 39.37	− 0.38	18.90	19 32 20.09	2.24
	* + 36° 46′ . .	†33	. .	. .	. .	8.4	9.6	11.1	12.6	13.8	. .	. .	. .	35 11.10	− 0.37	18.90	19 34 51.83	2.32
	O. Arg. S. 19933 .	34	15.4	17.7	18.9	29.8	31.0	32.4	33.7	34.8	45.6	46.8	49.1	38 32.29	+ 0.11	18.90	19 38 13.50	4.92
	* − 22° 33′ . .	†35	29.8	32.0	33.1	43.6	44.7	46.0	47.2	48.3	58.7	59.9	2.2	42 45.95	0.08	18.91	19 42 27.12	4.71
	* − 27° 3′ . .	36	18.2	20.5	21.6	32.5	33.7	34.9	36.2	37.4	48.4	49.4	51.8	48 34.96	0.11	18.91	19 48 16.16	4.84
	O. Arg. S. 20116 .	37	49.5	51.6	52.7	3.1	4.3	5.5	6.8	8.0	18.5	19.5	21.8	51 5.57	0.08	18.92	19 50 46.73	4.66
	O. Arg. S. 20126 .	38	. .	. .	. .	32.5	33.7	35.0	36.3	37.3	. .	. .	. .	51 34.96	+ 0.08	18.92	19 51 16.12	4.66
	B. A. C. 6850 . .	39	. .	. .	. .	. .	. .	. .	38.4	40.5	41.7	43.3	44.6	52 41.70	− 35.62	18.92	19 51 47.16	+ 4.66
	λ Ursæ Minoris . .	40	. .	. .	. .	17.0	12.0	17.0	22.0	15.0	. .	. .	. .	57 16.60	23.25	18.92	. . . .	− 126.15
	* + 38° 43′ . .	41	. .	45.7	47.0	59.7	0.8	2.5	3.9	5.2	17.5	19.1	. .	2 2.38	0.39	18.93	20 1 43.06	+ 2.08
	* + 37° 45′ . .	†42	. .	. .	. .	. .	. .	. .	32.6	35.3	36.8	38.6	40.0	4 36.66	42.07	18.93	20 3 35.66	2.14
	* + 38° 29′ . .	43	53.7	56.3	57.8	10.2	11.4	12.8	14.4	15.8	27.9	29.3	32.0	7 12.87	0.38	18.93	20 6 53.56	2.08
	Weisse (2) 304 .	†44	. .	. .	. .	. .	. .	. .	34.5	37.2	38.8	40.6	41.9	9 38.60	42.46	18.93	20 8 37.21	2.07
	* + 36° 39′ . .	45	. .	. .	. .	45.1	46.3	47.7	49.4	50.5	. .	. .	. .	11 47.80	0.37	18.93	20 11 28.50	2.19
	Weisse (2) 412 .	46	35.5	37.9	39.2	. .	. .	. .	. .	. .	8.8	10.3	12.9	11 54.10	0.37	18.93	20 11 34.80	2.19
	* + 36° 44′ . .	47	. .	. .	. .	4.7	5.8	7.5	9.0	10.3	. .	. .	. .	15 7.46	0.37	18.94	20 14 48.15	2.17
	B. A. C. 7006 . .	48	54.6	57.2	58.6	. .	. .	. .	. .	. .	28.2	29.7	32.3	15 13.43	0.37	18.94	20 14 54.12	2.17
	Weisse (2) 641 .	49	7.4	10.2	11.5	. .	. .	. .	. .	. .	41.8	43.2	46.0	18 26.68	− 0.39	−18.94	20 18 7.35	+ 2.02

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Sept. 17. 21.1	− 18.98	− 0.051	− 0.37	− 0.07

3. Faint.
20. Southward.
24. Unsteady.
33. A larger star preceding.
35. Only star seen.
42. Second and northward.
44. Northward of three stars.

DATE.	OBJECT.	Number.	SECONDS OF TRATSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	IX.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Sept. 17	Weisse (2) 643 .	1	. .	. .	. .	27.4	28.8	30.3	31.8	33.0	. .	. .	. .	18 30.26	− 0.39	−18.94	20 18 10.93	+ 2.02
Y.	Lalande 39496 .	2	37.6	40.4	41.6	. .	. .	. .	. .	. .	11.8	13.2	16.0	23 56.77	0.39	18.94	20 23 37.44	2.00
	* + 38° 55′ . .	3	. .	. .	. .	55.6	56.9	58.5	0.0	1.5	. .	. .	. .	23 58.50	0.39	18.94	20 23 39.17	2.00
	* − 0° 5′ . .	4	. .	. .	. .	5.5	6.8	8.7	23.5	25.7	26.8	28.1	29.4	27 19.31	− 25.64	18.95	20 26 34.72	3.74
	B. A. C. 7116 . .	5	51.1	53.2	54.4	4.8	6.0	7.1	8.4	9.4	19.8	21.0	23.1	31 7.12	+ 0.07	18.95	20 30 48.24	4.39
	O. Arg. S. 20762 .	6	28.9	31.1	32.3	42.5	43.5	44.7	46.0	47.1	57.5	58.5	0.7	35 44.80	0.06	18.95	20 35 25.91	4.32
	O. Arg. S. 20819 .	†7	32.4	34.7	35.8	46.2	47.4	48.8	50.2	51.3	1.7	3.0	5.2	38 48.79	+ 0.09	18.96	20 38 29.92	4.43
	Weisse (2) 1357 .	8	. .	. .	. .	50.4	51.6	53.0	54.5	55.6	. .	. .	. .	41 53.02	− 0.34	18.96	20 41 33.72	2.28
	Weisse (2) 1373 .	9	. .	0.8	2.0	13.6	14.8	16.4	17.8	19.0	30.6	31.8	. .	42 16.31	0.34	18.96	20 41 57.01	2.28
	μ Aquarii . . .	10	38.2	40.3	41.4	51.1	52.1	53.4	54.6	55.6	5.4	6.3	8·6	45 53.36	0.00	18.96	20 45 34.40	3.96
	Lalande 40494 .	†11	36.0	38.6	39.7	51.7	53.0	54.5	56.2	57.4	9.2	10.6	13.2	49 54.55	0.37	18.97	20 49 35.21	2.10
	* − 14° 0′ . . .	12	. .	. .	. .	31.4	32.6	34.7	49.8	51.9	53.3	54.8	56.1	53 45.58	26.34	18.97	20 53 0.27	4.05
	Weisse 1370 . .	13	. .	. .	. .	10.9	11.9	13.1	14.3	15.4	25.2	26.4	28.7	54 18.24	− 5.11	18.97	20 53 54.16	4.05
	O. Arg. S. 21138 .	14	56.0	58.2	59.2	9.2	10.3	11.6	12.8	14.0	23.9	25.1	27.4	1 11.61	+ 0.04	18.98	21 0 52.67	4.10
	Lacaille 8719 . .	15	38.0	40.4	41.7	54.5	55.7	57.4	59.0	0.2	12.7	14.0	16.7	4 57.30	0.22	18.98	21 4 38.54	4.74
	* − 15° 40′ . .	16	57.7	59.8	1.0	11.0	12.0	13.2	14.4	15.5	25.6	26.9	29.0	8 13.26	+ 0.03	18.98	21 7 54.31	4.02
	* − 15° 49′ . .	17	. .	. .	. .	42.3	43.4	45.6	0.9	3.1	4.4	5.9	7.1	8 56.59	− 26.56	18.98	21 8 11.05	4.03
	16 Aquarii . . .	18	15.5	17.6	18.7	28.6	29.5	30.7	31.9	32.9	42.5	43.7	45.7	14 30.66	− 0.03	18.99	21.14 11.64	3.71
	33 Capricorni . .	19	45.8	47.8	49.0	59.5	0.6	1.8	2.9	4.0	14.4	15.6	17.8	17 1.75	+ 0.07	18.99	21 16 42.83	4.14
	70 Cygni	20	1.8	4.3	5.6	17.6	19.0	20.4	21.8	23.0	35.2	36.7	39.1	22 20.41	− 0.37	18.99	21 22 1.05	2.08
	β Aquarii . . .	21	43.1	45.2	46.2	55.9	56.9	58.2	59.3	0.5	10.0	11.2	13.3	24 58.16	0.03	19.00	21 24 39.13	3.70
	* + 38° 51′ . .	22	41.1	43.7	45.0	57.5	58.8	0.3	1.8	3.1	15.7	17.0	19.5	30 0.32	0.39	19.00	21 29 40.93	1.94
	B. A. C. 7524 . .	23	30.2	32.8	34.0	46.4	47.9	49.4	50.8	52.1	4.6	5.9	8.7	32 49.35	− 0.39	19.00	21 32 29.96	1.96
	ι Piscis Australis .	24	8.1	10.7	12.0	23.5	24.7	26.1	27.6	28.7	40.4	41.7	44.0	37 26.14	+ 0.16	19.01	21 37 7.29	4.30
	O. Arg. S. 21635 .	25	4.5	6.7	8.0	18.6	19.7	21.0	22.4	23.5	33.9	35.1	37.5	40 20.99	0.09	19.01	21 40 2.07	4.07
	* − 24° 15′ . .	26	30.7	32.9	34.2	44.7	45.8	47.0	48.3	49.6	0.0	1.3	3.6	41 47.10	0.09	19.01	21 41 28.18	4.06
	Lacaille 8948 . .	27	19.5	22.3	24.5	35.7	36.9	38.5	39.8	41.1	53.3	55.0	57.4	45 38.55	0.20	19.01	21 45 19.74	4.33
	* − 24° 21′ . .	28	0.7	3.0	4.1	14.7	15.8	17.2	18.5	19.8	30.2	31.4	33.6	48 17.18	0.09	19.02	21 47 58.25	4.03
	* − 20° 37′ . .	29	36.2	37.8	39.1	40.5	43.1	. .	47.0	49.2	50.6	52.1	53.5	52 14.91	0.43	19.02	21 51 56.32	3.93
	* − 20° 38′ . .	30	4.9	7.2	8.3	18.5	19.7	21.0	22.3	23.4	33.6	34.7	37.0	52 20.96	0.06	19.02	21 52 2.00	3.92
	29 Aquarii (1st *) .	31	. .	. .	. .	32.0	33.2	34.5	35.7	36.7	. .	. .	. .	55 34.42	+ 0.05	19.02	21 55 15.45	3.85
	29 Aquarii (2d *) .	32	. .	. .	. .	47.2	48.4	50.5	6.0	8.1	9.5	11.0	12.2	56 1.61	− 26.78	19.02	21 55 15.81	3.85
	O. Arg. S. 21877 .	33	44.1	46.2	47.4	57.7	58.8	0.0	1.3	2.4	12.6	13.7	16.0	59 0.02	+ 0.06	19.02	21 58 41.06	3.87
	35 Aquarii . . .	34	27.6	28.8	30.3	31.5	33.9	. .	37.6	39.9	41.2	42.7	43.9	2 5.74	0.42	19.03	22 1 47.13	3.85
	* − 19° 8′ . . .	35	57.2	59.6	0.6	10.8	11.9	13.2	14.4	15.5	25.7	26.7	28.9	2 13.14	0.05	19.03	22 1 54.16	3.85
	O. Arg. S. 22013 .	36	29.3	31.5	32.6	43.0	44.2	45.6	46.8	48.0	58.6	59.8	2.2	7 45.60	0.09	19.03	22 7 26.66	3.92
	O. Arg. S. 22049 .	37	25.7	27.9	29.0	39.5	40.5	41.7	42.9	43.9	54.5	55.5	57.7	10 41.71	+ 0.07	19.04	22 10 22.74	3.84
	O. Arg. S. 22051 .	38	. .	. .	. .	17.5	18.6	20.8	36.8	39.0	40.3	41.8	42.9	11 32.21	− 27.35	19.04	22 10 45.82	3.84
	* − 22° 19′ . .	39	. .	. .	. .	4.4	5.5	6.8	7.9	9.0	. .	. .	. .	14 6.72	+ 0.07	19.04	22 13 47.75	3.85
	O. Arg. S. 22087 .	40	. .	. .	. .	11.8	13.1	14.4	15.5	16.7	. .	. .	. .	14 14.30	0.07	19.04	22 13 55.33	3.85
	Lalande 43719 .	41	47.2	49.4	50.5	0.4	1.4	2.6	3.8	4.9	14.8	16.0	18.1	18 2.65	+ 0.02	19.04	22 17 43.63	3.68
	Weisse 363 . .	42	. .	. .	. .	38.1	39.1	41.4	56.6	58.8	0.0	1.3	2.6	18 52.24	− 26.31	19.04	22 18 6.89	3.68
	* − 34° 27′ . .	43	. .	. .	. .	44.2	45.8	48.4	6.2	8.9	10.2	11.8	13.4	22 51.11	30.84	19.05	22 21 11.22	4.00
	* − 34° 30′ . .	44	. .	. .	. .	34.6	36.0	38.6	56.6	59.2	0.7	2.4	3.7	22 51.48	− 30.86	19.05	22 22 1.57	3.99
	* − 34° 30′ . .	45	6.3	8.6	9.9	21.7	22.9	24.3	25.8	26.8	38.7	39.9	42.6	24 24.32	+ 0.17	19.05	22 24 5.44	3.98
	O. Arg. S. 22239 .	46	39.7	41.7	42.8	53.1	54.2	55.4	56.6	57.7	7.9	9.1	11.3	27 55.41	0.05	19.05	22 27 36.41	3.73
	O. Arg. S. 22265 .	47	31.0	33.0	34.2	44.6	45.6	46.8	48.1	49.1	59.4	0.5	2.8	29 46.83	0.05	19.05	22 29 27.83	3.72
	19 Piscis Australis .	48	5.6	7.9	9.3	20.2	21.4	22.8	24.3	25.5	36.4	37.6	40.0	35 22.82	0.13	19.06	22 35 3.89	3.85
	O. Arg. S. 22383 .	49	15.3	17.4	18.4	28.9	30.0	31.3	32.6	33.6	44.0	45.2	47.4	38 31.28	0.07	19.06	22 38 12.29	3.72
	* − 21° 33′ . .	50	58.5	0.6	1.7	12.4	13.4	14.6	15.8	16.9	27.4	28.4	30.7	39 14.58	+ 0.07	−19.06	22 38 55.59	+ 3.72

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Sept. 17, 21.1	− 18.98	− 0.051	− 0.37	− 0.07

7. A larger star to northward.
11. Preceded by smaller star.

DATE.		OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n t 1870.0.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
				s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868. Sept. 17 Y.		* − 33° 33′ . .	†1	41.1	43.6	45.0	56.5	57.7	59.2	0.5	1.7	13.3	14.5	17.1	42 59.11	+ 0.16	−19.06	22 42 40.21	+ 3.54
		O. Arg. S. 22466 .	2	19.0	21.3	22.4	33.1	34.3	35.6	37.8	38.9	48.5	49.6	51.8	46 35.66	+ 0.09	19.07	22 46 16.68	3.72
		* + 35° 38′ . .	3	36.3	38.7	40.0	51.8	53.0	54.5	56.0	57.4	9.2	10.5	13.1	49 54.59	− 0.36	19.07	22 49 35.16	2.41
		Lalande 44862 .	4	13.3	14.9	16.5	17.8	21.0	. .	34.7	37.5	38.9	40.7	42.0	49 57.73	+ 0.07	19.07	22 49 38.73	2.41
		O. Arg. S. 22545 .	5	24.1	26.5	27.6	38.1	39.2	40.4	41.7	42.9	53.2	54.6	56.8	53 40.46	0.08	19.07	22 53 21.47	3.67
		B. A. C. 8025 . .	6	14.2	16.8	18.0	30.1	31.4	32.7	34.2	35.4	47.4	48.7	51.2	56 32.74	0.18	19.07	22 56 13.85	3.77
		* − 35° 35′ . .	7	5.1	7.6	8.8	20.8	22.0	23.3	24.8	26.2	38.0	39.3	42.0	0 23.45	0.18	19.08	23 0 4.55	3.74
		B. A. C. 8066 . .	8	50.1	52.7	54.1	6.9	8.3	9.7	11.3	12.8	25.6	27.3	30.0	3 9.89	0.23	19.08	23 2 51.04	3.75
		O. Arg. S. 22687 .	9	5.8	8.2	9.2	19.9	21.0	22.3	23.6	24.8	35.2	36.5	38.7	7 22.29	0.09	19.08	23 7 3.30	3.62
		Lalande 45545 .	10	48.9	51.1	52.2	2.4	3.4	4.7	5.8	7.0	17.0	18.2	20.3	10 4.64	0.04	19.08	23 9 45.60	3.54
		Lalande 45648 .	11	35.9	38.3	39.5	49.6	50.7	52.0	53.3	54.2	4.4	5.7	7.9	12 51.95	0.06	19.09	23 12 32.92	3.56
		Lalande 45704 .	12	42.5	43.7	45.0	46.3	49 0	. .	52.4	54.7	56.0	57.4	58.6	14 20.56	0.43	19.09	23 14 1.90	3.55
		* − 19° 17′ . .	13	5.5	7.6	8.7	18.9	20.0	21.3	22.6	23.6	33.9	35.0	37.4	14 21.32	+ 0.06	19.09	23 14 2.29	3.55
		Weisse 340 . .	14	45.8	48.0	49.0	58.7	59.8	1.0	2.1	3.2	12.9	14.0	15.9	18 0.95	− 0.11	19.09	23 17 41.75	3.24
	θ	Piscium . . .	15	23.4	25.4	26.5	36.2	37.2	38.4	39.6	40.6	50.2	51.4	53.5	21 38.40	− 0.11	19.10	23 21 19.19	3.23
18		B. A. C. 6249 . .	16	16.3	18.6	20.0	31.3	32.5	33.9	35.2	36.3	47.5	48.8	51.2	18 33.78	+ 0.08	19.78	18 18 14.08	5.54
	θ	Coronæ Australis	17	6.2	8.9	10.4	23.4	24.8	26.6	28.1	29.5	42.7	43.9	46.8	24 26.48	+ 0.16	19.78	18 24 6.86	6.12
	ι	Aquilæ. . . .	18	7.7	9.8	11.0	20.9	21.9	23.2	24.4	25.5	35.2	36.1	38.2	28 23.08	− 0.03	19.78	18 28 3.27	4.62
		Lalande 34581 .	19	45.1	47.8	48.9	1.4	2.7	4.2	5.6	7.0	19.2	20.7	23.4	32 4.18	0.30	19.78	18 31 44.10	2.60
		* − 31° 45′ . .	20	2.6	3.8	5.2	6.6	8.0	. .	40.3	42.8	44.1	45.8	47.0	35 24.62	− 19.28	19.78	18 34 45.56	5.59
	α	Coronæ Australis	21	32.2	35.0	36.4	48.5	49.8	51.5	53.0	54.3	6.3	7.7	10.4	0 51.37	+ 0.13	19.77	19 0 31.73	5.64
		Lalande 36051 .	22	13.6	16.2	17.6	29.7	30.9	32.5	34.0	35.2	47.4	48.8	51.3	5 32.47	− 0.30	19.77	19 5 12.40	2.45
		* − 32° 5′ . . .	23	14.7	17.0	18.2	29.7	30.7	32.2	33.7	34.9	46.4	47.5	50.0	8 32.27	+ 0.09	19.76	19 8 12.60	5.31
		* − 32° 3′ . . .	24	. .	. .	. .	. .	. .	. .	14.8	17.3	18.7	20.5	21.8	9 18.62	− 38.80	19.76	19 8 20.06	5.31
		B. A. C. 6606 . .	25	7.9	10.8	12.4	26.6	28.0	29.7	31.6	33.0	47.0	48.8	51.7	12 29.77	0.39	19.76	19 12 9.62	1.71
		Lalande 36426 .	26	. .	. .	. .	26.8	28.0	30.2	45.8	48.0	49.4	50.9	52.1	15 41.40	27.07	19.76	19 14 54.57	4.76
		Lalande 36448 .	27	. .	. .	. .	. .	. .	. .	13.9	16.2	17.5	19.0	20.1	16 17.34	34.90	19.76	19 15 22.68	4.76
		* − 39° 35′ . .	28	4.5	7.6	9.2	39.9	41.4	44.1	3.2	5.7	7.4	9.3	10.6	21 43.90	− 19.31	19.76	19 21 4.83	5.57
		Lacaille 8138 . .	29	7.5	10.1	11.5	24.4	25.6	27.2	28.7	30.0	42.8	44.1	46.9	25 27.16	+ 0.14	19.76	19 25 7.54	5.55
		O. Arg. S. 19809 .	30	51.7	54.0	55.2	6.1	7.3	8.6	10.0	11.1	21.8	23.2	25.7	31 8.61	0.06	19.75	19 30 48.92	4.98
		O. Arg. S. 19839 .	31	27.0	29.3	30.6	41.5	42.6	43.9	45.2	46.6	57.3	58.7	1.0	32 43.97	+ 0.06	19.75	19 32 24.28	4.97
		* + 5° 52′ . . .	32	30.0	32.0	33.0	42.7	43.7	44.9	46.2	47.2	56.7	57.8	0.1	36 44.94	− 0.10	19.75	19 36 25.09	3.77
		O. Arg. S. 19944 .	33	21.4	23.7	24.8	35.6	36.8	38.2	39.6	40.6	51.5	52.8	55.2	39 38.20	+ 0.06	19.75	19 39 18.51	4.91
		O. Arg S. 20046 .	34	58.2	0.5	1.6	12.6	13.7	15.1	16.5	17.7	28.4	29.7	31.9	46 15.08	0.06	19.75	19 45 55.39	4.99
		O. Arg. S. 20113 .	35	41.6	43.9	45.0	55.2	56.3	57.5	58.7	59.9	10.2	11.2	13.5	50 57.55	0.01	19.75	19 50 37.81	4.55
		Weisse 1319 . .	†36	26.4	27.8	29.0	30.2	32.9	. .	34.7	37.0	38.4	39.7	40.8	54 3.69	+ 0.36	19.75	19 53 44.30	4.38
		Weisse 1320 . .	37	49.8	51.7	53.1	3.2	4.2	5.4	6.7	7.7	17.7	18.7	20.8	54 5.36	0.00	19.75	19 53 45.61	4.37
		O. Arg. S. 20222 .	38	11.9	14.4	15.4	26.5	27.8	29.3	30.6	31.8	42.8	44.1	46.4	58 29.18	+ 0.07	19.74	19 58 9.51	4.85
		* − 16° 18′ . .	39	32.5	34.6	35.7	45.7	46.8	48.1	49.4	50.5	0.4	1.5	3.7	0 48.08	+ 0.01	19.74	20 0 28.35	4.41
	α²	Capricorni . .	40	50.5	52.6	53.7	3.6	4.8	6.0	7.1	8.1	18.0	19.2	21.3	11 5.90	− 0.01	19.74	20 10 46.15	4.25
		* − 19° 31′ . .	41	19.8	22.0	23.0	33.3	34.4	35.7	36.9	37.9	48.3	49.4	51.6	12 35.66	+ 0.02	19.74	20 12 15.94	4.45
		* − 19° 30′ . .	42	2.3	4.6	5.7	15.8	16.9	18.2	19.5	20.7	30.8	31.9	34.2	13 18.24	0.02	19.74	20 12 58.52	4.44
		* − 19° 9′ . .	43	. .	28.1	29.4	40.1	41.2	42.4	43.6	44.6	54.9	56.1	. .	16 42.27	+ 0.02	19.74	20 16 22.55	4.41
		* − 19° 12′ . .	44	. .	. .	. .	16.5	17.6	18.8	20.1	21.1	31.1	32.2	34.7	17 24.01	− 5.25	19.74	20 16 59.02	4.41
		* − 35° 47′ . .	45	25.8	28.2	29.6	41.5	42.7	44.1	45.5	46.9	58.7	0.0	2.4	20 44.13	+ 0.12	19.73	20 20 24.52	4.96
		O. Arg. S. 20574 .	46	53.0	54.5	55.7	57.3	59.8	. .	4.8	7.1	8.4	10.0	11.4	24 32.20	0.42	19.73	20 24 12.89	4.49
		* − 23° 1′ . . .	47	20.8	23.3	24.3	34.9	36.2	37.5	38.8	39.9	50.1	51.1	53.6	24 37.32	0.04	19.73	20 24 17.63	4.49
		O. Arg. S. 20621 .	48	26.7	29.0	30.0	40.5	41.6	42.9	44.1	45.3	55.8	56.9	59.1	27 42.90	0.04	19.73	20 27 23.21	4.47
		* − 19° 14′ . .	49	21.7	23.8	24.9	35.2	36.3	37.5	38.7	39.8	49.9	51.2	53.3	30 37.48	+ 0.02	19.73	20 30 17.77	4.34
		* − 19° 15′ . .	50	. .	. .	. .	58.3	59.5	0.7	1.9	3.0	13.3	14.4	16.6	31 5.96	− 5.25	−19.73	20 30 40.98	+ 4.34

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Sept. 18, 20.5	− 19.73	+ 0.025	− 0.27	− 0.07

1. Saw no other.
36. Northward.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Sept. 18	* − 9° 6′ . .	1	54.6	56.8	57.9	7.6	8.8	9.9	11.0	12.0	21.8	22.9	25.1	34 9.85	− 0.02	−19.73	20 33 50.10	+ 4.01
Y.	B. A. C 7172 . .	2	24.3	26.2	27.5	37.0	38.1	39.4	40.6	41.5	51.2	52.3	54.3	37 39.31	0.05	19.73	20 37 19.53	3.85
	* − 35° 38′ . .	3	. .	. .	. .	. .	. .	. .	53.1	55.7	57.3	59.0	0.5	39 57.12	− 40.44	19.73	20 38 56.95	4.80
	* − 21° 31′ . .	4	17.6	19.8	21.0	31.5	32.7	33.8	35.1	36.3	46.5	47.7	50.0	44 33.82	+ 0.03	19.72	20 44 14.13	4.33
	Lalande 40400 .	5	18.0	20.7	21.9	34.5	35.8	37.4	38.8	40.1	52.5	53.9	56.5	47 37.28	− 0.31	19.72	20 47 17.25	1.96
	* + 38° 51′ . .	6	24.0	26.6	27.9	40.5	41.8	. .	44.8	46.0	58.4	0.0	2.6	48 43 26	0.31	19.72	20 48 23.23	1.97
	* − 13° 52′ . .	7	. .	. .	. .	52.5	53.5	55.6	10.7	13.0	14.4	15.7	17.0	52 6.55	− 26.35	19.72	20 51 20.48	4.07
	O. Arg. S. 21138 .	8	56.8	58.9	0.0	10.0	11.1	12.5	13.7	14.7	24.7	26.0	28.0	1 12.40	+ 0.01	19.72	21 0 52.69	4.11
	O. Arg. S. 21154 .	9	. .	11.2	12.5	23.1	24.3	25.6	27.0	28.1	38.6	39.8	. .	2 25.58	+ 0.04	19.72	21 2 5.90	4.27
	ζ Cygni	10	24.4	26.8	27.9	39.1	40.3	41.6	43.0	44.2	55.3	56.5	58.9	7 41.64	− 0.24	19.71	21 7 21.69	2.48
	15 Aquarii . . .	11	22.7	24.8	25.8	35.6	36.6	37.7	38.9	40.0	49.6	50.7	52.8	11 37.75	0.04	19.71	21 11 18.00	3.72
	B. A. C. 7417 . .	12	31.5	35.5	37.7	55.6	57.7	0.0	2.4	4.2	22.2	24.5	28.3	15 59.96	0.56	19.71	21 15 39.69	0.02
	* + 36° 7′ . .	13	56.7	59.1	0.4	12.3	13.7	15.2	16.5	17.8	29.8	31.2	33.9	20 15.15	0.29	19.71	21 19 55.15	+ 2.12
	β Cephei	14	38.4	43.8	47.3	15.4	18.0	21.7	24.9	28.5	56.4	59.9	6.0	27 21.85	− 0.94	19.71	. . . .	− 2.82
	O. Arg. S. 21525 .	15	43.9	46.0	47.2	57.4	58.4	59.6	0.8	2.0	12.1	13.3	15.5	30 59.65	+ 0.01	19.70	21 30 39.96	+ 3.98
	Weisse 768 . .	16	11.0	13.1	14.2	24.1	25.2	26.4	27.6	28.6	38.5	39.6	41.7	33 26.36	− 0.01	19.70	21 33 6.65	3.81
	Weisse 801 . .	17	8.9	10.9	12.0	21.9	23.0	24.2	25.3	26.3	36.2	37.4	39.4	34 24.14	0.01	19.70	21 34 4.43	3.81
	* + 37° 18′ . .	18	31.8	34.4	35.6	47.9	49.0	50.7	52.1	53.4	5.5	6.8	9.4	37 50.60	0.30	19.70	21 37 30.60	2.06
	* + 37° 25′ . .	†19	. .	. .	. .	26.5	27.8	30.4	49.0	51.6	53.3	55.0	56.4	38 43.75	32.50	19.70	21 37 51.55	2.05
	Lalande 42507 .	20	19.7	22.4	23.6	35.7	37.0	38.5	40.1	41.2	53.4	54.8	57.2	41 38.51	0.30	19.70	21 41 18.51	2.08
	* + 36° 28′ . .	21	58.9	1.7	2.9	15.0	16.3	17.7	19.1	20.4	32.6	33.8	36.2	44 17.69	0.29	19.70	21 43 57.70	2.12
	Weisse (2) 1196 ..	22	47.4	50.0	51.3	3.2	4.4	5.9	7.4	8.6	20.4	21.7	24.1	50 5.85	0.28	19.70	21 49 45.87	2.18
	Weisse (2) 1331 .	23	37.5	40.0	41.1	52.8	54.2	55.6	57.0	58.2	9.8	11.1	13.7	54 55.55	− 0.27	19.69	21 54 35.59	2.26
	* − 19° 43′ . .	24	42.3	44.4	45.4	55.7	56.8	58.0	59.3	0.5	10.7	11.9	14.0	57 58.09	+ 0.02	19.69	21 57 38.42	3.88
	O. Arg. S. 21877 .	25	. .	. .	. .	58.4	59.5	0.7	1.9	3.1	13.4	14.4	16.6	59 6.00	− 5.26	19.69	21 58 41.05	3.88
	35 Aquarii . . .	26	50.8	53.3	54.2	4.5	5.6	6.7	8.0	9.0	19.4	20.6	22.7	2 6.80	+ 0.02	19.69	22 1 47.13	3.85
	39 Aquarii . . .	27	. .	. .	. .	38.7	39.7	40.9	42.2	43.3	53.2	54.4	56.6	5 46.12	− 5.15	19.69	22 5 21.28	3.75
	θ Aquarii . . .	28	59.4	1.3	2.4	12.3	13.2	14.5	15.7	16.8	26.2	27.5	29.6	10 14.45	0.03	19.69	22 9 54.73	+ 3.62
19	δ Ursæ Minoris .	29	. .	. .	. .	38.0	56.0	15.5	36.5	53.0	. .	. .	. .	15 15 80	− 7.44	20.54	18 . . .	− 31.93
	B. A. C. 6254 . .	30	. .	. .	. .	9.7	11.0	12.4	13.9	15.1	. .	. .	. .	19 12.42	+ 0.16	20.54	18 18 52.04	+ 5.69
	B. A. C. 6285 . .	31	29.9	32.4	33.6	45.1	46.3	47.7	49.1	50.4	1.8	3.2	5.7	22 47.75	0.16	20.54	18 22 27.37	5.66
	* − 33° 2′ . .	32	48.9	51.3	52.6	3.9	5.2	6.7	8.0	9.3	20.6	22.0	24.7	24 6.65	+ 0.16	20.54	18 23 46.27	5.64
	1 Aquilæ . . .	33	8.7	10.8	11.8	21.6	22.6	23.9	25.1	26.0	5.7	6.8	9.0	28 23.82	− 0.01	20.54	18 28 3.27	4.64
	Lacaille 7802 . .	34	37.9	40.5	41.7	53.5	54.6	56.1	57.5	58.7	10.5	11.9	14.4	30 56.12	+ 0.17	20.54	18 30 35.75	5.66
	Lacaille 7823 . .	35	48.1	50.7	52.0	4.5	5.7	7.3	8.9	10.2	22.6	24.2	26.8	34 7.36	0.21	20.54	18 33 47.03	5.91
	B. A. C. 6363 . .	36	. .	. .	. .	6.6	8.0	9.6	11.2	12.4	. .	. .	. .	36 9.56	+ 0.22	20.54	18 35 49.24	5.92
	Lacaille 7831 . .	37	. .	. .	. .	26.8	28.5	31.0	50.4	53.1	54.8	56.4	58.0	36 44.88	− 33.09	20.54	18 35 51.25	5.92
	Lacaille 7858 . .	38	28.5	30.9	32.3	44.5	45.8	47.3	48.9	50.0	2.1	3.3	6.0	39 47.24	+ 0.19	20.54	18 39 26.89	5.75
	Lalande 35046 .	39	33.3	35.5	36.6	46.9	48.0	49.2	50.6	51.7	1.9	3.2	5.4	44 49.30	0.06	20.54	18 44 28.82	5.00
	* − 33° 24′ . .	40	. .	. .	. .	39.8	40.9	42.5	43.9	44.9	. .	. .	. .	47 42.40	0.16	20.54	18 47 22.02	5.52
	* − 33° 24′ . .	41	. .	. .	. .	0.5	1.6	3.1	4.4	5.7	. .	. .	. .	48 3.06	0.16	20.54	18 47 42.68	5.52
	Lacaille 7926 . .	42	22.2	24.6	25.8	. .	. .	. .	. .	. .	54.3	55.5	57.9	48 40.05	0.16	20.54	18 48 19.67	5.52
	* − 33° 26′ . .	43	. .	. .	. .	37.9	39.2	40.6	42.2	43.4	. .	. .	. .	48 40.66	0.16	20.54	18 48 20.28	5.52
	* − 22° 1′ . .	44	20.1	22.3	23.5	33.8	34.8	36.2	37.4	38.6	49.0	50.3	52.4	53 36.22	0.07	20.54	18 53 15.75	5.01
	* − 8° 46′ . .	45	42.0	43.2	44.5	45.7	48.2	. .	49.0	51.1	52.4	53.7	54.9	57 18.47	+ 0.34	20.54	18 56 58.27	4.50
	Weisse 1430 . .	46	8.2	10.4	11.5	21.0	22.2	23.4	24.6	25.6	35.4	36.5	38.6	57 23.40	− 0.01	20.54	18 57 2.85	4.50
	α Coronæ Austr. .	47	33.2	35.5	37.0	49.2	50.5	52.2	53.6	54.8	6.9	8.4	11.0	0 52.03	+ 0.20	20.54	19 0 31.69	5.66
	O. Arg. S. 19179 .	48	. .	. .	. .	16.3	17.4	19.7	35.5	37.9	39.1	40.6	42.0	3 31.06	− 27.49	20.54	19 2 43.03	4.95
	B. A. C. 6561 . .	49	41.3	43.5	44.6	55.0	56.0	57.3	58.7	59.7	10.1	11.3	13.6	4 57.37	+ 0.07	20.54	19 4 36.90	4.94
	* − 33° 47′ . .	50	. .	. .	. .	29.1	30.5	31.7	33.3	34.6	. .	. .	. .	7 31.84	+ 0.16	−20.54	19 7 11.46	+ 5.41

19. Very red.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
April 19, 20.9	− 20.55	− 0.003	− 0.37	− 0.07

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	h. s.	m. s.	s.	h. m. s.	s.
Sept. 19	* − 33° 49′	1	..	..	..	48.8	50.2	52.7	10.5	13.0	14.5	16.2	17.6	8 5.44	− 30.62	−20.54	19 7 14.28	+ 5.41
Y.	O. Arg. S. 19371	2	24.8	27.0	28.2	38.6	39.8	41.0	42.4	43.6	54.0	55.3	57.6	11 41.12	+ 0.08	20.54	19 11 20.56	4.97
	Weisse 315	3	13.5	15.7	16.9	26.7	27.7	29.0	30.1	31.2	40.9	42.0	44.2	14 28.90	0.00	20.54	19 14 8.36	4.47
	δ Aquilæ	4	58.1	0.2	1.3	10.9	12.0	13.2	14.5	15.4	25.0	26.0	28.0	19 13.15	− 0.09	20.55	19 18 52.51	4.00
	Weisse 488	5	..	..	..	31.9	33.1	35.2	49.8	52.0	53.3	54.7	55.9	19 45.74	− 25.70	20.55	19 18 59.49	3.92
	O. Arg. S. 19665	6	5.5	7.6	8.9	19.0	20.2	21.4	22.6	23.8	34.0	35.2	37.4	24 21.42	+ 0.06	20.55	19 24 0.93	4.74
	O. Arg. S. 19753	7	37.2	39.4	40.5	50.7	51.9	53.1	54.4	55.4	5.6	6.8	9.0	28 53.09	+ 0.06	20.55	19 28 32.60	4.70
	O. Arg. S, 19770	8	..	..	..	28.3	29.4	30.6	31.8	32.9	43.0	44.2	46.4	29 35.82	− 5.21	20.55	19 29 10.06	4.69
	* − 23° 40′	9	59.8	2.0	3.1	13.6	14.7	16.0	17.4	18.5	28.9	30.2	32.4	32 16.05	+ 0.69	20.55	19 31 55.59	4.84
	* − 23° 40′	10	..	..	..	46.5	47.7	49.9	6.0	8.5	9.7	11.3	12.6	33 1.52	− 27.84	20.55	19 32 13.13	4.84
	O. Arg. S. 19944	11	22.2	24.6	25.6	36.6	37.6	38.9	40.3	41.5	52.3	53.5	56.0	39 39.01	+ 0.11	20.55	19 39 18.57	4.93
	O. Arg. S. 19990	12	28.6	30.8	31.9	43.0	44.1	45.4	46.7	48.0	58.9	0.0	2.4	42 45.44	+ 0.11	20.55	19 42 25.00	4.93
	O. Arg. S. 19997	13	..	..	..	14.7	15.9	18.3	34.9	37.3	38.7	40.4	41.6	43 30.22	− 28.77	20.55	19 42 40.90	4.93
	O. Arg. S. 20051	14	26.1	28.5	29.7	40.5	41.7	42.9	44.4	45.5	56.2	57.4	59.8	46 42.97	+ 0.11	20.55	19 46 22.53	4.93
	Weisse 1205	15	..	..	..	..	..	..	..	..	1.1	2.4	4.6	49 2.70	− 13.44	20.55	19 48 28.71	4.24
	Weisse 1208	16	..	..	..	..	..	..	23.0	25.0	26.2	27.6	28.8	49 26.12	− 33.40	20.55	19 48 32.17	4.24
	Lacaille 8293	17	..	..	..	50.0	51.4	52.9	54.6	55.8	..	..	..	51 52.94	+ 0.20	20.55	19 51 32.59	5.29
	α² Capricorni	18	51.3	53.4	54.5	4.4	5.5	6.7	8.0	8.9	18.7	19.9	22.0	11 6.66	+ 0.02	20.55	20 10 46.13	4.27
	* + 37° 52′	19	..	..	..	20.5	21.9	23.4	24.9	26.2	..	..	..	14 23.38	− 0.38	20.55	20 14 2.45	2.14
	* − 23° 36′	20	28.1	30.4	31.6	42.0	43.3	44.6	45.8	47.0	..	..	..	17 39.10	+ 5.51	20.55	20 17 24.06	4.56
	O. Arg. S. 20573	21	..	..	..	..	..	..	5.7	7.9	9.2	10.8	12.2	25 9.16	− 35.73	20.55	20 24 12.88	4.50
	* − 23° 1′	22	..	..	..	35.7	36.7	38.0	39.2	40.5	..	..	..	24 38.02	+ 0.08	20.55	20 24 17.55	4.50
	O. Arg. S. 20621	23	..	..	..	56.5	57.7	59.9	15.9	18.2	19.5	21.1	22.6	28 11.42	− 27.71	20.55	20 27 23.16	4.49
	* + 37° 57′	24	22.9	25.6	27.0	..	..	..	..	..	57.1	58.4	1.0	32 42.00	0.38	20.55	20 32 21.07	2.08
	Lalande 39885	25	..	..	..	45.9	47.3	48.8	50.3	51.7	..	..	..	32 48.80	0.38	20.55	20 32 27.87	2.06
	* + 34° 58′	26	4.6	7.2	8.5	20.2	21.6	23.0	24.4	25.7	37.4	38.9	41.4	37 22.99	− 0.35	20.55	20 37 2.09	2.26
	Lalande 40043	27	50.7	52.3	53.9	55.4	58.3	..	11.5	14.0	15.7	17.4	18.8	37 34.80	+ 0.07	20.55	20 37 14.32	2.26
	B. A. C. 7210	†28	16.3	18.7	19.9	..	..	..	..	..	46.6	47.9	50.3	42 33.28	0.11	20.55	20 42 12.84	4.54
	* − 27° 51′	29	..	..	..	32.1	33.4	34.7	36.0	37.1	..	..	..	42 34.66	0.11	20.55	20 42 14.22	4.54
	B. A. C. 7225	30	45.5	47.9	49.2	0.1	1.2	2.6	3.9	5.0	16.0	17.2	19.5	44 2.55	+ 0.11	20.55	20 43 42.11	4.53
	B. A. C. 7259	31	37.6	40.4	41.7	55.2	56.7	58.2	59.9	1.2	14.7	16.3	19.0	48 58.26	− 0.46	20.55	20 48 37.25	1.62
	* + 43° 53′	32	..	..	..	33.6	35.0	36.7	38.3	39.7	..	..	..	49 36.66	− 0.46	20.55	20 49 15.65	1.62
	Lacaille 8633	33	40.4	42.9	44.4	56.7	58.1	59.5	1.2	2.5	14.9	16.3	18.9	52 59.62	+ 0.21	20.55	20 52 39.28	4.84
	Lacaille 8657	34	41.4	44.2	45.7	59.2	0.7	2.4	4.0	5.2	18.6	20.3	23.0	55 2.25	0.26	20.55	20 54 41.96	4.98
	Lacaille 8686	35	9.6	12.4	13.7	26.2	27.5	29.0	30.4	31.8	44.3	45.7	48.4	59 29.00	0.21	20.55	20 59 8.66	4.79
	O. Arg. S. 21152	36	10.1	12.4	13.5	24.0	25.2	26.4	27.6	28.8	39.3	40.5	42.7	2 26.41	0.08	20.55	21 2 5.94	4.28
	* − 35° 40′	37	7.9	10.4	11.7	..	..	..	..	..	40.7	42.0	44.7	5 26.23	0.18	20.55	21 5 5.86	4.62
	Weisse 156	38	51.6	53.6	54.7	4.4	5.4	6.7	8.0	9.0	18.6	19.7	21.9	9 6.69	0.00	20.55	20 8 46.14	3.88
	θ Microscopii	39	..	..	..	38.7	40.3	41.8	43.3	44.6	..	..	..	12 41.74	0.23	20.55	21 12 21.42	4.74
	B. A. C. 7424	40	41.0	43.4	44.5	55.0	56.1	57.5	58.8	59.8	10.2	11.5	13.7	16 57.41	+ 0.08	20.55	21 16 36.94	4.19
	* + 36° 8′	41	..	..	..	30.7	32.1	34.7	52.9	55.6	57.0	58.8	0.3	20 47.76	− 32.03	20.55	21 19 55.18	2.13
	* + 36° 4′	42	2.3	4.9	6.1	18.1	19.4	20.8	22.4	23.4	..	..	..	20 14.68	+ 5.79	20.55	21 19 59.92	2.14
	O. Arg. S. 21452	43	8.9	11.4	12.6	23.0	24.2	25.5	26.9	27.9	38.6	39.7	42.0	25 25.52	0.09	20.55	21 25 5.06	4.15
	* − 16° 18′	44	44.2	46.3	47.4	57.4	58.6	59.8	1.0	2.0	12.2	13.2	15.4	28 59.77	0.04	20.55	21 28 39.26	3.95
	Lalande 42108	45	10.7	12.8	13.9	23.7	24.7	26.0	27.3	28.2	38.1	39.3	41.4	31 26.01	0.01	20.55	21 31 5.47	3.83
	B. A. C. 7536	46	30.0	32.1	33.3	43.5	44.6	45.9	47.1	48.3	58.5	59.8	2.0	34 45.92	0.06	20.55	21 34 25.43	4.03
	O. Arg. S. 21596	47	48.1	50.3	51.3	1.6	2.6	3.9	5.1	6.1	16.4	17.5	19.7	37 3.87	0.05	20.55	21 36 43.37	3.97
	* − 18° 46′	48	53.6	55.8	57.1	7.3	8.4	9.5	10.7	11.8	21.7	23.0	25.1	40 9.45	0.05	20.55	21 39 48.95	3.96
	O. Arg. S. 21645	49	33.1	35.2	36.5	46.7	47.9	49.1	50.3	51.4	1.4	2.7	4.9	40 49.02	0.05	20.55	21 40 28.52	3.96
	* − 20° 37′	50	0.7	3.0	4.2	14.5	15.7	16.8	18.0	19.3	29.6	30.7	33.0	52 16.86	+ 0.06	−20.55	21 51 56.37	+ 3.94

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Sept. 19, 20.9	− 20.55	− 0.003	− 0.37	− 0.07

28. B. A. C. 7203 does not exist; an error of 1^m confounds it with B. A. C. 7210. A like error confounds B. A. C. 7214 and 7225.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Sept. 19	* − 20° 38′ . .	1	43.6	44.9	46.4	47.6	50.0	. .	54.3	56.4	57.7	59.2	0.6	52 22.07	+ 0.43	−20.55	21 52 1.95	+ 3.94
Y.	O. Arg. S. 21829 .	2	0.0	2.2	3.4	13.6	14.7	16.0	17.3	18.3	28.7	29.8	32.0	56 16.00	0.06	20.55	21 55 55.51	3.92
	O. Arg. S. 21876 .	3	46.5	48.8	50.0	1.2	2.5	3.8	5.1	6.1	17.3	18.6	21.0	59 3.72	0.13	20.55	21 58 43.30	4.08
	* − 40° 18′ . .	4	55.7	58.3	59.6	12.1	13.6	15.2	16.7	17.9	30.5	31.8	34.7	2 15.10	0.22	20.55	22 1 54.77	4.27
	Weisse 59 . . .	5	40.5	42.6	43.7	53.4	54.5	55.7	57.0	58.0	7.8	9.0	11.1	4 55.75	0.01	20.55	22 4 35.21	3.70
	O. Arg. S. 22013 .	6	30.7	33.0	34.1	44.7	45.9	47.3	48.6	49.8	0.1	1.5	3.8	7 47.23	0.09	20.55	22 7 26.77	3.93
	Lacaille 9088 . .	7	8.0	10.5	11.7	23.1	24.4	25.8	27.2	28.3	39.6	41.0	43.5	10 25.74	0.15	20.55	22 10 5.34	4.06
	* − 35° 13′ . .	8	11.1	13.6	14.8	26.5	27.7	29.4	30.7	31.9	43.7	45.1	47.6	13 29.28	0.18	20.55	22 13 8.91	4.08
	O. Arg. S. 22117 .	9	38.1	40.4	41.6	52.0	53.2	54.4	55.6	56.7	7.0	8.3	10.5	16 54.35	0.07	20.55	22 16 33.87	3.83
	Weisse 398 . .	10	48.7	50.9	52.1	1.9	3.0	4.2	5.4	6.5	16.2	17.4	19.6	20 4.17	0.01	20.55	22 19 43.63	3.64
	* − 31° 7′ . .	11	51.2	53.6	54.7	6.1	7.5	8.7	10.1	11.3	22.5	23.8	26.2	23 8.70	0.14	20.55	22 22 48.29	3.95
	O. Arg. S. 22323 .	12	47.6	49.9	51.0	1.4	2.6	3.9	5.2	6.3	16.8	17.9	20.2	27 3.89	0.08	20.55	22 26 43.42	3.80
	* − 13° 35′ . .	13	12.3	14.5	15.5	25.4	26.5	27.7	28.9	29.9	39.9	41.0	43.2	30 27.71	0.02	20.55	22 30 7.18	3.64
	Lalande 44319 .	14	11.7	14.4	15.8	27.8	29.1	30.6	32.2	33.4	. .	. .	. .	33 24.28	+ 5.83	20.55	22 33 9.66	2.23
	Weisse (2) 764 .	15	. .	. .	. .	54.4	55.8	57.4	58.9	0.1	. .	. .	. .	33 57.32	− 0.37	20.55	22 33 36.40	2.23
	* + 36° 42′ . .	16	43.9	46.5	47.8	. .	. .	. .	. .	. .	17.2	18.6	21.3	34 2.55	0.37	20.55	22 33 41.63	2.22
	* + 37° 10′ . .	17	. .	. .	. .	30.7	32.0	34.8	53.1	55.8	57.5	59.0	0.5	37 47.92	32.46	20.55	22 36 54.91	2.20
	Lalande 44466 .	†18	. .	. .	. .	17.0	18.5	20.0	21.6	22.7	. .	. .	. .	37 19.96	− 0.37	20.56	22 36 59.03	2.21
	* − 29° 22′ . .	19	38.4	40.8	42.0	53.1	54.1	55.4	56.8	58.1	9.0	10.4	12.7	41 55.53	+ 0.13	20.56	22 41 35.10	3.81
	λ Aquarii . . .	20	51.7	53.9	54.9	4.6	5.6	6.9	8.1	9.1	18.9	20.0	22.1	46 6.89	− 0.01	20.56	22 45 46.32	3.52
	* + 35° 38′ . .	21	11.3	12.8	14.4	15.9	18.9	. .	32.7	35.4	36.9	38.8	40.1	49 55.72	+ 0.08	20.56	22 49 35.24	2.33
	Lalande 44862 .	22	41.3	43.9	45.0	57.0	58.2	59.7	1.2	2.4	14.1	15.7	18.2	49 59.70	− 0.35	20.56	22 49 38.79	2.33
	* − 17° 36′ . .	23	. .	. .	. .	12.2	13.3	14.5	15.7	16.8	26.9	28.1	30.4	54 19.74	− 5.17	20.56	22 53 54.01	3.61
	O. Arg. S. 22587 .	24	13.8	16.1	17.3	27.7	28.8	30.1	31.4	32.6	42.9	44.1	46.4	57 30.11	+ 0.08	20.56	22 57 9.63	3.65
	* − 35° 35′ . .	25	6.6	9.0	10.3	22.1	23.3	24.8	26.4	27.7	39.6	40.8	43.4	0 24.91	+ 0.18	20.56	23 0 4.53	3.74
	Weisse (2) 34 . .	26	48.8	51.3	52.7	. .	. .	. .	. .	. .	21.9	23.2	25.8	4 7.28	− 0.36	20.56	23 3 46.36	2.36
	Weisse (2) 35 . .	27	. .	. .	. .	8.2	9.4	10.9	12.3	13.7	. .	. .	. .	4 10.90	− 0.36	20.56	23 3 49.98	2.36
	O. Arg. S. 22688 .	28	27.6	29.7	30.9	41.0	42.1	43.4	44.7	45.6	55.7	56.8	59.0	7 43.32	+ 0.05	20.56	23 7 22.81	3.56
	Lalande 45545 .	29	50.7	52.8	53.9	3.9	5.1	6.3	7.5	8.5	18.6	19.7	22.0	10 6.27	+ 0.04	20.56	23 9 45.75	3.53
	Lacaille 9439 . .	30	. .	. .	. .	19.5	20.6	22.0	23.3	24.4	35.6	36.8	39.2	12 27.68	− 5.58	20.56	23 12 1.54	3.63
	B. A. C. 8150 . .	†31	32.8	35.7	37.0	. .	. .	. .	. .	. .	10.2	11.5	14.6	16 53.63	+ 0.26	20.56	23 16 33.33	3.64
	* − 22° 28′ . .	32	44.8	46.9	48.1	58.5	59.7	0.9	2.3	3.4	13.8	14.9	17.3	20 0.96	+ 0.08	20.56	23 19 40.48	3.55
	Weisse 452 . .	33	21.1	23.2	24.2	34.0	35.0	36.3	37.4	38.4	48.1	49.2	51.4	23 36.21	− 0.12	20.56	23 23 15.53	3.21
	* − 39° 0′ . . .	34	39.5	42.0	43.5	55.9	57.2	58.8	0.4	1.7	14.0	15.5	18.0	27 58.77	+ 0.21	20.56	23 27 38.42	3.56
	Weisse 609 . .	35	32.7	34.7	35.8	45.5	46.5	47.7	48.8	49.8	59.5	0.6	2.8	30 47.67	− 0.06	20.56	23 30 27.05	3.34
	Weisse 678 . .	36	52.7	54.8	55.8	5.5	6.7	7.8	8.9	10.0	19.6	20.7	22.8	34 7.75	0.06	20.56	23 33 47.13	3.34
	Weisse 730 . .	37	41.2	43.2	44.3	53.8	54.9	56.2	57.4	58.4	7.9	9.1	11.2	36 56.15	0.06	20.56	23 36 35.53	3.33
	Weisse 767 . .	38	22.6	24.6	25.7	35.2	36.3	37.5	38.8	39.8	49.4	50.5	52.6	38 37.55	0.06	20.56	23 38 16.93	3.33
	* + 7° 27′ . . .	39	. .	. .	. .	. .	. .	. .	21.3	23.4	24.7	26.1	27.3	42 24.56	33.36	20.56	23 41 30.64	3.22
	Lalande 46632 .	40	42.8	44.8	45.9	. .	. .	. .	. .	. .	9.8	10.9	13.0	41 57.87	− 0.12	20.56	23 41 37.19	3.22
	O. Arg. S. 23096 .	41	38.1	40.3	41.4	51.6	52.7	53.9	55.2	56.3	6.4	7.5	9.8	45 53.93	+ 0.05	20.56	23 45 33.42	3.44
	Lacaille 9647 . .	42	54.0	56.6	57.7	10.4	11.7	13.2	14.7	15.9	28.3	29.7	32.2	49 13.13	+ 0.21	20.56	23 48 52.78	3.40
	ω Piscium . . .	43	40.4	42.5	43.7	53.3	54.4	55.6	56.8	57.9	7.5	8.6	10.7	52 55.58	− 0.11	20.56	23 52 34.91	+ 3.27
21	δ Ursæ Minoris .	44	59.0	32.0	51.0	34.5	53.0	13.0	33.0	50.0	31.0	50.5	27.0	15 12.18	7.44	17.02	. . . .	− 31.09
	ι Aquilæ . . .	45	5.1	7.2	8.4	18.0	19.1	20.3	21.6	22.6	32.2	33.4	35.5	28 20.31	0.01	17.03	18 28 3.27	+ 4.67
	Weisse 793 . .	46	11.2	13.4	14.5	24.2	25.3	26.6	27.8	28.7	38.5	39.7	41.7	33 26.51	0.00	17.03	18 33 9.48	4.68
	O. Arg. S. 18584 .	47	. .	. .	. .	48.4	49.4	50.6	51.9	53.0	3.2	4.3	6.6	35 55.92	− 5.21	17.03	18 35 33.68	5.04
	B. A. C. 6377 . .	48	24.8	27.1	28.4	39.6	40.7	41.9	43.4	44.5	55.5	56.9	59.1	38 41.99	+ 0.13	17.03	18 38 25.09	5.45
	* − 37° 24′ . .	49	8.7	11.5	12.7	24.8	26.0	27.6	28.9	30.2	42.4	43.7	46.4	42 27.54	+ 0.20	−17.04	18 42 10.70	+ 5.80

18. A large star to southward.
31. Cloudy.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Sept. 21, 20.7	− 17.11	− 0.037	− 0.37	− 0.07

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868. Sept. 21 Y.	* − 22° 51′ . .	1	19.8	22.0	23.1	33.7	34.6	36.0	37.2	38.3	48.8	49.8	52.3	46 35.96	+ 0.08	−17.04	18 46 19.00	+ 5.12
	62 Serpentis . . .	2	5.2	7.3	8.3	18.1	19.1	20.3	21.5	22.5	32.2	33.3	35.4	49 20.29	− 0.11	17.04	18 49 3.14	4.04
	Lalande 35802 .	3	. .	. .	. .	53.1	54.5	57.1	16.0	18.7	20.3	22.1	23.5	1 10.66	− 33.10	17.05	19 0 20.51	2.49
	* − 19° 17′ . .	4	50.4	52.6	53.7	3.9	5.0	6.3	7.5	8.6	18.8	19.9	22.2	10 6.26	+ 0.06	17.05	19 9 49.27	4.85
	* − 19° 18′ . .	5	50.2	52.3	53.5	3.7	4.9	5.9	7.2	8.4	18.5	19.7	21.8	11 6.91	+ 0.06	17.05	19 10 49.02	4.84
	f Aquilæ . . .	6	34.1	36.2	37.3	46.8	47.9	49.3	50.3	51.4	1.2	2.3	4.2	13 49.18	− 0.03	17.06	19 13 32.09	4.33
	* − 19° 18′ . .	7	25.3	27.3	28.6	38.7	39.8	41.2	42.6	43.6	53.8	55.1	57.4	17 41.22	+ 0.06	17.06	19 17 24.22	4.80
	* − 39° 35′ . .	8	. .	4.8	6.4	18.8	20.1	21.7	23.4	24.7	37.2	38.9	. .	21 21.78	0.22	17.06	19 21 4.94	5.64
	* − 27° 21′ . .	9	41.8	44.1	45.3	56.1	57.3	58.7	0.0	1.0	11.9	13.3	15.5	25 58.64	0.11	17.06	19 25 41.69	5.06
	* − 27° 21′ . .	10	19.6	21.0	22.3	23.7	26.3	. .	. .	. .	. .	. .	. .	25 22.58	+ 38.11	17.06	19 25 43.63	5.06
	* − 27° 23′ . .	11	. .	. .	. .	8.6	9.7	12.1	29.3	31.8	32.9	34.5	35.7	29 24.32	− 28.69	17.06	19 28 38.57	5.04
	Lalande 37300 .	12	. .	. .	. .	34.5	35.9	37.3	39.0	40.3	. .	. .	. .	32 37.40	0.38	17.07	19 32 19.95	2.34
	* + 36° 46′ . .	13	50.2	52.8	54.2	6.3	7.5	9.0	10.5	11.9	23.8	25.2	27.8	35 9.02	− 0.37	17.07	19 34 51.58	2.41
	* − 39° 44′ . .	14	34.1	36.6	38.0	50.6	52.0	53.4	55.1	56.4	8.9	10.4	12.9	37 53.49	+ 0.22	17.07	19 37 36.64	5.52
	O. Arg. S. 19985 .	15	54.4	56.7	57.9	8.6	9.8	11.3	12.6	13.7	24.4	25.6	28.0	42 11.18	0.11	17.07	19 41 54.22	4.93
	O. Arg. S. 19998 .	†16	40.5	42.8	44.1	54.8	55.8	57.2	58.6	59.6	10.4	11.6	13.9	42 57.21	0.11	17.07	19 42 40.25	4.92
	O. Arg. S. 20055 .	17	36.7	38.9	40.0	50.2	51.3	52.5	53.7	54.8	4.9	6.0	8.3	46 52.48	0.05	17.08	19 46 35.45	4.55
	O. Arg. S. 20096 .	18	19.5	21.6	22.8	32.8	33.9	35.2	36.4	37.5	47.5	48.6	50.9	49 35.15	0.04	17.08	19 49 18.11	4.54
	Lalande 38175 .	19	6.8	9.4	10.8	23.0	24.3	25.7	27.3	28.6	40.7	42.2	44.8	53 25.78	+ 0.38	17.08	19 53 8.32	2.26
	Lalande 38202, (1st *)	†20	49.3	51.7	53.0	. .	. .	. .	. .	. .	23.1	24.5	27.2	54 8.13	− 0.38	17.08	19 53 50.67	2.26
	Lalande 38202, (2d *)	†21	. .	. .	. .	5.5	6.9	8.4	10.0	11.4	. .	. .	. .	54 8.44	− 0.38	17.08	19 53 50.98	2.26
	O. Arg. S. 20222 .	22	. .	11.5	12.9	23.9	25.1	26.5	28.0	29.1	40.1	41.5	. .	58 26.51	+ 0.13	17.08	19 58 9.56	4.93
	O. Arg. S. 20287 .	23	37.8	39.9	41.2	51.8	52.9	54.4	55.6	56.6	7.3	8.5	10.7	3 54.25	+ 0.09	17.09	20 3 37.25	4.72
	* + 38° 29′ . .	24	. .	. .	. .	25.9	27.4	30.1	48.9	51.7	53.2	55.0	56.4	7 43.58	− 33.05	17.09	20 6 53.44	2.16
	O. Arg. S. 20384 .	25	6.4	8.7	9.8	20.3	21.4	22.8	24.2	25.3	35.9	36.9	39.3	11 22.82	+ 0.09	17.09	20 11 5.82	4.66
		26																
	* + 37° 52′ . .		1.0	3.6	4.9	17.1	18.5	20.0	21.5	22.7	35.0	36.5	39.1	14 19.99	− 0.38	17.09	20 14 2.52	2.15
	Weisse (2) 641 .	27	. .	21.9	23.1	24.8	26.4	27.7	3.0	5.5	7.2	8.8	10.5	18 45.89	21.52	17.10	20 18 7.27	2.10
	Weisse (2) 643 .	28	9.2	11.7	13.1	. .	. .	. .	. .	. .	43.5	44.8	47.6	18 28.32	0.39	17.10	20 18 10.83	2.10
	ε Delphini . . .	†29	58.5	0.7	1.8	11.7	12.7	13.8	15.0	16.1	25.8	26.9	29.2	27 13.84	0.14	17.10	20 26 56.60	3.42
	Weisse XX, 851 .	†30	. .	. .	. .	17.7	18.9	20.3	21.6	22.7	32.2	33.3	35.3	34 25.25	− 5.03	17.11	20 34 3.11	3.99
	O. Arg. S. 20828 .	31	47.6	49.9	51.1	. .	. .	. .	. .	. .	17.8	18.9	21.4	39 4.45	+ 0.11	17.11	20 38 47.45	4.59
	O. Arg. S. 20833 .	32	. .	7.0	8.2	9.6	10.7	12.0	43.0	45.3	47.8	48.4	49.7	39 28.07	− 18.48	17.11	20 38 52.48	4.59
	λ Cygni	33	17.3	19.9	21.1	33.1	34.4	35.8	37.3	38.6	50.3	51.8	54.3	42 35.81	− 0.36	17.11	20 42 18.34	2.22
	O. Arg. S. 20922 .	34	33.1	35.4	36.4	46.5	47.6	48.8	50.0	51.2	1.3	2.4	4.7	45 48.85	+ 0.05	17.11	20 45 31.79	4.55
	* + 36° 44′ . .	35	35.0	37.3	39.0	51.0	52.2	53.6	55.2	56.3	8.6	9.9	12.4	49 53.68	− 0.37	17.11	20 49 36.20	2.16
	* − 35° 41′ . .	36	0.8	3.4	4.7	16.6	17.8	19.4	20.8	22.1	33.8	35.2	37.7	53 19.30	+ 0.18	17.12	20 53 2.36	4.75
	* + 37° 38′ . .	37	9.5	12.2	13.5	25.7	27.1	28.6	30.0	31.4	43.3	44.8	47.6	58 28.52	− 0.38	17.12	20 58 11.02	2.09
	* − 12° 27′ . .	38	13.3	15.3	16.5	26.3	27.5	28.7	29.9	30.9	40.7	42.0	44.0	5 28.65	+ 0.01	17.12	21 5 11.54	3.99
	* − 12° 21′ . .	39	. .	. .	. .	. .	. .	. .	4.7	7.0	8.1	9.7	10.8	6 8.06	− 33.74	17.12	21 5 17.20	3.99
	* + 38° 42′ . .	40	14.1	16.7	18.0	30.5	31.8	33.3	34.8	36.0	48.5	49.9	52.6	9 33.29	0.39	17.13	21 9 15.77	2.01
	Lalande 41419 .	41	25.3	27.9	29.2	41.5	42.9	44.4	46.0	47.2	59.6	0.9	3.6	12 44.41	− 0.39	17.13	21 12 26.89	2.01
	B. A. C. 7424 . .	42	37.6	40.0	41.0	51.5	52.7	54.0	55.3	56.3	6.8	8.1	10.3	16 53.96	+ 0.08	17.13	21 16 36.91	4.22
	* + 36° 7′ . . .	43	54.1	56.6	58.0	9.8	11.0	12.6	14.2	15.5	27.3	28.6	31.3	20 12.64	− 0.36	17.13	21 19 55.15	2.16
	70 Cygni	44	. .	. .	. .	15.9	17.2	18.6	20.1	21.3	33.3	34.7	37.4	22 24.81	− 6.56	17.13	21 22 1.12	2.14
	O. Arg. S. 21452 .	45	5.6	7.9	9.2	19.6	20.8	22.1	23.4	24.6	35.1	36.3	38.5	25 22.10	+ 0.09	17.14	21 25 5.05	4.20
	ξ Aquarii . . .	46	47.9	50.1	51.0	0.9	2.0	3.1	4.4	5.3	15.1	16.2	18.4	31 3.13	− 0.01	17.14	21 30 45.98	3.78
	O. Arg. S. 21562 .	47	5.7	7.9	9.1	19.4	20.6	21.8	23.1	24.3	34.7	35.7	38.0	34 21.85	0.08	17.14	21 34 4.79	4.10
	Lalande 42355 .	48	34.3	36.3	37.3	47.0	48.1	49.3	50.5	51.5	1.1	2.2	4.5	37 49.28	− 0.03	17.14	21 37 32.11	3.66
	* − 17° 54′ . .	49	23.3	25.5	26.6	36.7	37.8	39.0	40.3	41.4	51.4	52.7	54.8	40 39.05	+ 0.05	17.15	21 40 21.95	3.95
	* − 5° 16′ . .	50	50.4	52.4	53.5	3.1	4.3	5.5	6.6	7.6	17.3	18.4	20.5	44 5.42	− 0.03	−17.15	21 43 48.24	+ 3.64

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
Sept. 21, 20.7	− 17.11	− 0.037	− 0.37	− 0.07

16. A small star to southward, preceding.
20. Close double, southward.
21. Northward.
29. Unsteady.
30. Seconds not recorded on fillet.

r.

September 21. Image west 0.15. Clamp west.
Image west 0.00. Clamp east.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Sept. 21	* + 38° 18′ . .	1	. .	. .	. .	. .	. .	. .	30.1	32.8	34.4	36.4	37.7	47 34.28	− 42.38	−17.15	21 46 34.75	+ 2.04
Y.	* + 38° 20′ . .	2	. .	. .	. .	2.8	4.0	5.7	7.2	8.6	. .	. .	. .	47 5.66	0.38	17.15	21 46 48.13	2.04
	* − 20° 36′ . .	3	. .	. .	. .	. .	. .	. .	45.2	47.5	48.8	50.3	51.4	52 48.64	− 35.16	17.15	21 51 56.33	3.95
	* − 20° 38′ . .	4	3.1	5.3	6.4	. .	. .	. .	. .	. .	31.7	32.9	35.1	52 19.08	+ 0.06	17.15	21 52 1.99	3.95
	O. Arg. S. 21829 .	5	56.5	58.8	59.9	10.1	11.2	12.5	13.8	14.9	25.2	26.4	28.6	56 12.54	0.06	17.16	21 55 55.44	3.93
	O. Arg. S. 21876 .	6	43.1	45.4	46.7	57.8	58.9	0.3	1.6	2.8	14.0	15.3	17.6	59 0.32	+ 0.13	17.16	21 58 43.29	4.09
	* + 53° 2′ . . .	7	. .	. .	. .	25.4	27.0	29.1	31.0	32.8	. .	. .	. .	1 29.06	− 0.61	17.16	22 1 11.29	1.90
	O. Arg. S. 21966 .	†8	8.8	10.9	12.3	22.4	23.5	24.7	26.0	27.3	37.2	38.3	40.6	5 24.73	+ 0.05	17.16	22 5 7.62	3.85
	O. Arg. S. 22049 .	9	23.8	25.9	27.1	37.5	38.6	39.8	40.9	42.1	52.5	53.6	56.0	10 39.80	+ 0.07	17.16	22 10 22.71	3.86
	O. Arg. S. 22051 .	10	. .	. .	. .	0.7	1.8	3.0	4.3	5.3	15.7	16.8	19.0	11 8.32	− 5.27	17.16	22 10 45.89	3.86
	O. Arg. S. 22060 .	11	. .	. .	. .	34.2	35.3	36.5	37.9	39.0	49.2	50.4	52.6	11 41.89	− 5.27	17.16	22 11 19.46	3.86
	O. Arg. S. 22102 .	12	23.6	25.8	27.1	37.7	38.8	40.2	41.5	42.6	53.4	54.5	56.7	15 40.17	+ 0.10	17.17	22 15 23.10	3.91
	* − 29° 2′ . . .	13	2.8	5.1	6.4	17.4	18.5	19.8	21.2	22.5	33.5	34.7	37.2	19 19.92	+ 0.12	17.17	22 19 2.87	3.95
	η Aquarii . . .	14	39.4	41.5	42.5	52.3	53.2	54.4	55.6	56.7	6.1	7.2	9.4	28 54.39	− 0.07	17.18	22 28 37.14	3.42
28	51 Cephei S. P. . .	15	. .	. .	. .	20.0	43.0	24.0	32.0	14.0	40.0	10.0	33.0	47 4.62	− 8 53.21	17.56	6 37 53.85	48.13
	ζ Aquilæ . . .	16	24.2	26.4	27.6	37.5	38.5	39.8	40.9	42.0	52.0	53.1	55.2	59 39.75	+ 0.07	17.56	18 59 22.26	3.81
	53 Draconis . . .	17	. .	. .	. .	25.4	27.3	29.5	31.7	33.6	. .	. .	. .	9 29.50	0.24	17.56	19 9 12.18	1.04
	Lalande 36513 .	18	0.5	3.3	4.6	16.8	17.9	19.5	21.0	22.2	34.3	35.6	38.2	15 19.45	+ 0.13	17.56	19 15 2.02	2.67
	O. Arg. S. 19525 .	19	2.1	4.4	5.6	15.9	16.9	18.3	19.3	20.6	30.7	31.8	33.9	18 18.14	0.00	17.56	19 18 0.58	4.93
	* − 26° 1′ . . .	†20	35.1	37.4	38.7	. .	. .	. .	. .	. .	4.9	6.0	8.3	21 51.73	− 0.01	17.56	19 21 34.16	5.16
	O. Arg. S. 19770 .	21	11.5	13.9	15.1	25.2	26.2	27.5	28.8	29.8	40.0	41.0	43.3	29 27.48	0.00	17.56	19 29 9.92	+ 4.85
	σ Draconis . . .	22	12.7	18.7	21.9	49.4	52.3	55.6	59.2	1.9	29.2	32.4	38.1	32 55.58	+ 0.41	17.56	19 32 38.43	− 1.80
	O. Arg. S. 19908 .	23	48.4	50.7	51.7	2.8	3.8	5.2	6.5	7.6	18.6	19.6	21.8	37 5.15	+ 0.01	17.56	19 36 47.58	+ 5.11
	O. Arg. S. 19960 .	24	. .	. .	. .	47.3	48.3	50.6	7.6	10.4	11.5	13.0	14.5	41 2.90	− 29.20	17.56	19 40 16.14	5.08
	* − 19° 39′ . .	†25	46.4	48.6	49.9	0.0	1.0	2.3	3.6	4.6	14.8	16.0	18.2	48 2.31	0.00	17.57	19 47 44.74	4.76
	Lalande 38039 .	26	. .	. .	. .	33.1	34.4	36.9	55.7	59.0	0.5	2.2	3.7	50 50.69	32.28	17.57	19 50 0.84	2.51
	* + 34° 57′ . .	27	27.6	28.9	30.7	32.3	34.8	. .	47.9	51.0	52.4	54.0	55.5	55 11.51	− 0.30	17.57	19 54 53.64	2.58
	* + 34° 56′ . .	28	59.3	1.8	3.1	14.8	16.0	17.6	19.1	20.4	32.0	33.5	35.8	55 17.58	+ 0.12	17.57	19 55 0.13	2.58
	* − 19° 5′ . .	29	28.8	31.0	32.3	42.5	43.4	44.7	45.9	47.0	57.3	58.4	0.6	58 44.72	0.00	17.57	19 58 27.15	4.67
	O. Arg. S. 20274 .	30	9.7	11.9	13.0	23.3	24.5	25.6	27.8	28.0	38.0	39.2	41.4	2 25.67	0.00	17.57	20 2 8.10	4.64
	O. Arg. S. 20343 .	31	46.2	48.5	49.5	59.5	0.5	1.9	3.0	4.1	14.4	15.4	17.7	8 1.88	0.00	17.57	20 7 44.31	4.55
	O. Arg. S. 20358 .	32	54.8	56.8	57.9	8.1	9.2	10.4	11.7	12.9	22.9	23.9	25.9	9 10.41	0.00	17.57	20 8 52.84	4.55
	O. Arg. S. 20398 .	33	9.7	12.1	13.4	24.4	25.4	26.7	28.1	29.4	40.4	41.7	43.9	12 26.84	− 0.02	17.57	20 12 9.25	+ 4.96
	λ Ursæ Minoris .	34	. .	. .	. .	. .	. .	. .	. .	27.0	34.0	37.0	50.0	27 7.00	−30 29.34	17.57	. . . .	− 122.85
	* + 37° 57′ . .	35	. .	. .	. .	35.8	37.1	38.6	40.0	41.5	. .	. .	. .	32 38.60	+ 0.13	17.57	20 32 21.16	+ 2.26
	Lalande 39885 .	36	. .	. .	. .	0.2	1.6	4.2	23.5	26.7	28.4	29.9	31.4	33 18.24	− 32.82	17.57	20 32 27.85	2.27
	Lalande 40043 .	37	13.5	16.0	17.5	29.1	30.4	31.8	33.2	34.5	46.3	47.7	50.0	37 31.82	+ 0.12	17.57	20 37 14.37	2.42
	μ Aquarii . . .	38	36.5	38.7	39.8	49.6	50.7	51.9	52.9	54.0	3.7	4.8	7.0	45 51.78	0.02	17.57	20 45 34.23	4.10
	Lalande 40494 .	39	33.6	36.4	37.8	49.7	51.0	52.4	54.0	55.3	7.3	8.6	11.2	49 52.48	+ 0.13	17.57	20 49 35.04	2.30
	Lacaille 8642 . .	40	19.8	22.3	23.8	35.4	36.5	38.0	39.4	40.5	52.1	53.3	55.9	53 37.91	− 0.03	17.58	20 53 20.30	4.77
	* + 37° 38′ . .	41	9.4	12.1	13.5	25.6	26.9	28.4	30.0	31.2	43.4	44.6	47.3	58 28.40	+ 0.13	17.58	20 58 10.95	2.22
	* + 35° 46′ . .	42	47.0	49.5	50.8	2.6	3.8	5.4	6.8	8.0	19.9	21.4	23.8	6 5.36	0.13	17.58	21 5 47.91	2.31
	* + 38° 42′ . .	43	14.0	16.7	18.3	30.4	31.7	33.2	34.8	36.0	48.5	49.8	52.5	9 33.26	0.14	17.58	21 9 15.82	2.13
	Lalande 41419 .	44	25.1	27.8	29.2	41.4	42.7	44.4	45.9	47.1	59.5	1.0	3.5	12 44.33	0.14	17.58	21 12 26.89	2.13
	B. A. C. 7417 . .	45	28.6	32.6	34.7	52.8	54.8	57.0	59.2	1.3	19.5	21.5	25.3	15 57.03	+ 0.25	17.58	21 15 39.70	0.30
	* − 22° 24′ . .	46	. .	. .	. .	0.6	1.8	3.1	4.4	5.4	15.9	16.9	19.2	19 8.41	− 5.39	17.58	21 18 45.44	4.26
	b Capricorni . .	47	15.3	17.6	18.7	29.2	30.3	31.7	32.9	34.0	44.5	45.6	47.9	21 31.61	0.00	17.58	21 21 14.03	4.25
	B. A. C. 7485 . .	48	26.7	28.9	30.0	40.2	41.3	42.5	43.6	44.8	54.8	55.9	58.0	26 42.43	+ 0.01	17.58	21 26 24.86	4.07
	* + 38° 51′ . .	49	39.0	41.8	43.2	55.5	56.8	58.4	59.9	1.3	13.7	15.0	17.7	29 58.39	0.14	17.58	21 29 40.95	2.11
	B. A. C. 7524 . .	50	28.2	30.9	32.4	44.6	45.8	47.5	48.9	50.3	2.6	4.0	6.6	32 47.44	+ 0.14	−17.58	21 32 30.00	+ 2.12

8. Saw but this in the place.
20. Faint.
25. Saw no other.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
Sept. 28, 21.4	− 17.58	− 0.009	+ 0.11	+ 0.04

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868. Sept. 28 Y.	* + 36° 57′ . .	1	40.4	43.0	44.6	56.6	57.8	59.4	0.7	2.0	14.2	15.5	18.0	36 59.29	+ 0.13	−17.58	21 36 41.84	+ 2.22
	* + 38° 55′ . .	2	25.5	28.2	29.5	42.0	43.3	44.9	46.2	47.7	0.1	1.5	4.2	39 44.83	0.14	17.58	21 39 27.39	2.10
	Lalande 42563 .	3	1.7	4.5	5.9	18.0	19.3	20.8	22.3	23.7	35.9	37.2	39.9	43 20.84	0.13	17.58	21 43 3.39	2.15
	B. A. C. 7614 . .	4	38.3	41.1	42.5	54.9	56.1	57.7	59.2	0.6	13.0	14.3	17.0	45 57.70	0.14	17.58	21 45 40.26	2.10
	Weisse (2) 1196 .	5	44.9	47.5	48.8	0.7	1.9	3.4	4.9	6.1	17.9	19.3	21.9	50 3.39	0.13	17.58	21 49 45.94	2.29
	Lalande 42878 .	6	34.7	37.5	38.8	51.2	52.4	53.9	55.3	56.7	9.0	10.5	13.0	52 53.91	+ 0.13	17.58	21 52 36.46	2.14
	* − 11° 18′ . .	7	48.2	50.3	51.3	1.3	2.3	3.5	4.6	5.7	15.5	16.6	18.7	56 3.45	− 0.02	17.58	21 55 45.85	3.79
	O. Arg. S. 21912 .	8	4.5	6.8	8.0	18.0	19.0	20.4	21.7	22.7	32.8	34.0	36.2	1 20.37	0.00	17.59	22 1 2.78	3.92
	Weisse 118 . .	9	33.9	36.1	37.3	47.3	48.2	49.5	50.7	51.8	1.8	2.9	5.0	7 49.50	+ 0.01	17.59	22 7 31.92	3.82
	44 Aquarii . . .	10	18.0	20.1	21.3	30.9	31.9	33.2	34.4	35.4	45.0	46.0	48.0	10 33.11	0.03	17.59	22 10 15.55	3.61
	Weisse 59 . . .	11	37.4	39.6	40.5	50.3	51.4	52.7	53.9	54.9	4.7	5.8	8.0	4 52.65	+ 0.02	17.59	22 4 35.08	3.76
	Weisse 223 . .	12	. .	. .	. .	30.0	31.0	32.2	33.3	34.5	44.1	45.2	47.3	12 37.20	− 5.01	17.59	22 12 14.60	3.66
	49 Aquarii . . .	13	12.7	15.1	16.3	27.0	28.0	29.3	30.7	31.8	42.5	43.7	45.9	16 29.36	0.01	17.59	22 16 11.76	3.96
	π Aquarii . . .	14	. .	. .	. .	4.2	5.2	7.3	22.6	25.0	26.3	27.5	28.8	19 18.36	25.97	17.59	22 18 34.80	3.44
	Schjellerup 9211 .	15	. .	. .	. .	48.6	49.6	50.7	51.8	52.8	2.5	3.7	5.7	24 55.68	4.96	17.59	22 24 33.13	3.29
	Weisse 518 . .	†16	. .	. .	. .	58.9	0.0	1.9	17.4	19.9	21.1	22.3	23.6	26 13.14	− 26.14	17.59	22 25 29.41	3.29
	* − 13° 35′ . .	17	9.0	11.4	12.5	22.4	23.4	24.7	25.9	26.9	36.8	37.9	40.0	30 24.63	+ 0.01	17.59	22 30 7.05	3.68
	Lalande 44346 .	18	38.7	41.5	43.0	55.0	56.4	57.9	59.3	0.6	12.9	14.4	16.9	33 57.87	+ 0.13	17.59	22 33 40.41	2.22
	* + 37° 10′ . .	19	27.8	29.2	31.0	32.5	35.2	. .	50.5	53.6	55.0	56.7	58.1	37 12.96	− 0.31	17.59	22 36 55.06	2.27
	Lalande 44466 .	20	57.8	0.5	1.9	13.8	15.0	16.7	18.1	19.4	31.6	32.8	35.5	37 16.65	+ 0.13	17.59	22 36 59.19	2.27
	Weisse (2) 967 .	21	10.4	13.2	14.4	26.4	27.7	29.2	30.7	32.0	44.0	45.4	48.0	42 29.22	+ 0.13	17.59	22 42 11.76	2.30
	* + 39° 1′ . .	22	. .	. .	. .	36.9	38.4	41.0	0.8	3.8	5.5	7.0	8.7	44 55.26	− 33.34	17.59	22 44 4.33	2.19
	Lalande 44848 .	23	11.1	12.5	14.2	15.8	18.4	. .	31.8	34.7	36.3	37.8	39.4	48 55.20	0.30	17.59	22 48 37.31	2.39
	* + 35° 19′ . .	24	27.7	29.1	30.9	32.5	35.0	. .	48.6	51.5	52.9	54.6	56.0	49 11.88	− 0.30	17.59	22 48 53.99	2.38
	* + 35° 18′ . .	25	55.8	58.5	59.9	11.7	12.8	14.3	15.5	16.8	. .	. .	. .	49 8.16	+ 6.23	17.59	22 48 56.80	2.39
	* − 17° 36′ . .	26	. .	. .	. .	9.3	10.3	11.6	12.8	13.8	24.0	25.1	27.2	54 16.76	− 5.22	17.59	22 53.53.95	3.63
	O. Arg. S. 22587 .	27	10.7	13.0	14.2	24.7	25.9	27.1	28.4	29.5	40.0	41.2	43.5	57 27.11	− 0.01	17.59	22 57 9.51	3.67
	56 Pegasi	28	45.1	47.5	48.8	59.4	0.3	1.7	2.9	4.2	14.7	15.8	18.1	1 1.68	+ 0.09	17.59	23 0 44.18	2.80
	Weisse (2) 34 . .	29	45.4	47.8	49.3	1.2	2.4	3.9	5.6	6.7	18.7	19.9	22.5	4 3.95	+ 0.13	17.59	23 3 46.49	2.39
	Weisse (2) 35 . .	30	23.2	24.7	26.6	28.0	30.7	. .	44.9	48.0	49.4	51.0	52.5	4 7.90	− 0.30	17.59	23 3 50.01	2.39
	O. Arg. S. 22688 .	31	24.5	26.8	27.8	37.9	39.0	40.3	41.5	42.6	52.7	53.8	56.0	7 40.26	0.00	17.60	23 7 22.66	3.57
	O. Arg. S. 22723 .	32	53.8	56.0	57.2	7.6	8.6	10.0	11.2	12.4	22.8	23.9	26.1	10 9.95	0.00	17.60	23 9 52.35	3.59
	Lalande 45648 .	33	34.6	36.8	38.0	48.2	49.2	50.5	51.7	52.8	3.0	4.1	6.3	12 50.47	0.00	17.60	23 12 32.87	3.56
	97 Aquarii . . .	34	48.6	50.7	51.8	1.9	2.8	4.0	5.3	6.4	16.5	17.6	19.7	16 4.12	+ 0.01	17.60	23 15 46.53	3.51
	θ Piscium . . .	35	21.7	23.8	24.9	34.6	35.6	36.8	37.9	39.0	48.7	49.7	51.9	21 36.78	+ 0.05	17.60	23 21 19.23	3.22
29	51 Cephei, S. P. . .	36	. .	. .	. .	28.0	52.0	16.0	41.0	0.0	. .	. .	. .	38 15.40	− 2.27	18.30	. . . .	48.14
	β Lyræ, (1st *) . .	37	14.0	16.5	17.8	29.3	30.5	31.9	33.4	34.5	46.1	47.4	49.8	45 31.93	+ 0.10	18.30	18 45 13.73	3.10
	β Lyræ, (2d *) . .	38	51.2	52.7	54.3	55.8	58.2	. .	10.0	12.9	14.3	15.8	17.3	45 34.25	− 0.32	18.30	18 45 15.63	3.10
	O. Arg. S. 18915 .	39	47.2	49.6	50.9	1.9	3.1	4.4	5.7	6.8	17.9	19.1	21.4	52 4.36	+ 0.01	18.30	18 51 46.07	5.50
	2 Aquilæ . . .	40	. .	. .	. .	44.7	45.8	48.0	3.8	6.2	7.6	8.9	10.1	53 59.39	− 26.86	18.30	18 53 14.23	3.55
	* − 23° 28′ . .	41	37.1	39.3	40.5	51.1	52.2	53.4	54.7	55.7	6.4	7.5	9.7	58 53.42	+ 0.02	18.30	18 58 35.14	5.22
	* − 33° 48′ . .	42	46.4	47.9	49.6	51.0	53.5	. .	5.9	8.8	10.3	11.9	13.3	7 29.86	− 0.42	18.30	19 7 11.14	5.62
	* − 33° 50′ . .	43	14.2	16.9	18.3	. .	. .	. .	. .	. .	46.3	47.9	50.5	7 32.35	0.00	18.30	19 7 14.05	5.62
	Lacaille 8066 . .	44	25.5	28.2	29.5	41.0	42.1	43.5	45.0	46.2	58.0	59.1	1.7	10 43.62	0.00	18.30	19 10 25.32	5.59
	B. A. C. 6613 . .	45	45.3	47.6	49.0	0.1	1.2	2.6	3.8	5.0	16.1	17.4	19.8	14 2.54	+ 0.01	18.30	19 13 44.25	5.39
	* − 8° 7′ . .	46	0.2	2.4	3.6	13.3	14.3	15.6	16.7	17.8	27.6	28.7	30.7	18 15.54	0.03	18.30	19 17 57.27	4.54
	O. Arg. S. 19618 .	47	53.9	56.2	57.5	8.2	9.4	10.8	12.0	13.4	24.2	25.4	27.7	22 10.79	0.01	18.31	19 21 52.49	5.25
	O. Arg. S. 19665 .	48	3.1	5.3	6.4	16.7	17.7	19.0	20.2	21.3	31.7	32.8	35.0	24 19.02	+ 0.02	18.31	19 24 0.73	4.92
	Lacaille 8158 . .	49	30.1	33.0	34.2	47.1	48.4	50.0	51.6	53.1	6.1	7.3	10.1	28 50.09	− 0.01	18.31	19 28 31.77	5.87
	O. Arg. S. 19809 .	†50	. .	. .	. .	20.4	21.5	23.8	41.0	43.8	45.2	46.7	48.0	31 36.30	− 29.36	−18.31	19 30 48.63	+ 5.19

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
Sept. 29, 21.0	− 18.32	− 0.009	+ 0.07	+ 0.04

16. Followed by a pair.
50. Another star preceding.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	Mean.	Inst.	Clock.		
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868. Sept. 29 Y.	Weisse 331 . .	1	11.8	14.0	15.2	25.0	26.0	27.2	28.5	29.6	. .	. .	. .	17 22.16	+ 5.12	−18.33	22 17 8.95	+ 3.71
	Weisse 346 . .	2	35.9	38.1	39.3	49.0	50.0	51.2	52.4	53.6	3.5	4.5	6.6	17 51.28	0.03	18.33	22 17 32.98	3.71
	* + 16° 21′ . .	3	36.1	38.2	39.5	49.6	50.7	51.9	53.0	54.2	4.2	5.4	7.6	21 51.85	+ 0.02	18.33	22 21 33.54	3.77
	Schjellerup 9211 .	4	. .	. .	. .	3.4	4.6	6.5	21.9	24.4	25.6	26.8	28.0	25 17.65	− 26.14	18.33	22 24 33.18	3.30
	Weisse 518 . .	5	. .	34.6	35.8	45.5	46.5	47.8	49.0	50.0	59.7	0.7	. .	25 47.73	+ 0.05	18.33	22 25 29.45	3.29
	Weisse 527 . .	6	. .	. .	. .	15.6	16.7	17.8	19.0	20.1	. .	. .	. .	26 17.84	+ 0.05	18.33	22 25 59.56	3.29
	Weisse 528 . .	7	. .	. .	. .	30.2	31.3	33.4	48.7	51.1	52.3	53.6	54.9	26 44.44	− 26.14	18.33	22 25 59.97	3.29
	O. Arg. S. 22288 .	8	. .	53.3	54.6	5.6	6.7	8.0	9.3	10.5	21.6	22.7	. .	31 8.03	+ 0.01	18.33	22 30 49.71	3.91
	19 Piscis Australis .	9	. .	. .	. .	19.8	20.9	22.4	23.8	24.9	36.0	37.2	39.7	35 28.09	− 5.73	18.33	22 35 4.03	3.92
	* + 0° 28′ . . .	10	41.7	43.7	44.9	54.4	55.3	56.6	57.8	58.9	8.6	9.6	11.7	37 56.65	+ 0.04	18.33	22 37 38.36	3.40
	B. A. C. 7951 (1st *)	11	46.7	47.8	49.4	50.6	52.7	. .	52.9	55.4	56.6	57.8	59.2	41 22.91	− 0.31	18.34	22 41 4.26	3.49
	B. A. C. 7951 (2d *)	12	7.7	9.9	11.1	. .	. .	. .	. .	. .	34.9	36.0	38.0	41 22.93	+ 0.04	18.34	22 41 4.63	3.49
	Weisse 850 . .	13	. .	. .	. .	22.5	23.6	24.7	25.9	27.0	. .	. .	. .	41 24.74	0.04	18.34	22 41 6.44	3.49
	λ Aquarii . . .	14	49.5	51.6	52.5	2.3	3.4	4.6	5.8	6.9	16.6	17.7	19.6	46 4.59	+ 0.03	18.34	22 45 46.28	3.50
	* − 37° 23′ . .	15	. .	. .	. .	5.7	6.8	8.4	9.8	11.2	23.5	24.7	27.4	49 14.69	− 6.26	18.34	22 48 50.09	3.88
	Weisse 1068 . .	16	12.3	14.5	15.6	25.4	26.4	27.6	28.8	29.8	39.6	40.6	42.7	52 27.57	+ 0.03	18.34	22 52 9.26	3.51
	O. Arg. S. 22587 .	17	11.6	13.8	15.0	25.5	26.5	27.8	29.1	30.2	40.7	41.8	44.0	57 27.82	0.02	18.34	22 57 9.50	3.68
	c² Aquarii . . .	18	29.2	31.3	32.6	42.8	44.0	45.5	46.7	47.8	58.2	59.3	1.4	2 45.35	0.02	18.34	23 2 27.03	3.64
	Weisse 61 . . .	19	16.7	18.7	19.8	29.6	30.6	31.7	33.0	34.1	43.7	45.0	47.0	5 31.81	+ 0.05	18.34	23 5 13.52	+ 3.20
30	δ Ursæ Minoris . .	20	. .	. .	. .	. .	. .	. .	34.5	15.0	35.0	57.0	17.0	24 31.80	− 9 29.31	19.14	18 . . .	− 27.18
	1 Aquilæ . . .	21	7.0	9.1	10.3	20.0	20.9	22.2	23.4	24.4	34.2	35.3	37.4	28 22.20	+ 0.04	19.14	18 28 3.10	+ 4.83
	B. A. C. 6413 . .	22	17.8	20.1	21.3	32.4	33.6	35.0	36.4	37.6	48.7	49.9	52.2	44 35.00	0.06	19.14	18 44 15.92	5.59
	B. A. C. 6447 . .	23	0.0	2.3	3.4	13.4	14.5	15.7	16.9	18.1	28.1	29.1	31.2	48 15.70	+ 0.05	19.14	18 47 56.61	5.03
	O. Arg. S. 18847 .	24	. .	. .	. .	41.1	42.3	44.4	0.2	2.9	4.1	5.6	6.8	48 55.92	− 27.08	19.14	18 48 9.70	5.03
	Weisse 1333 . .	25	27.4	29.7	30.7	40.4	41.4	42.5	43.6	44.7	54.5	55.6	57.7	53 42.56	+ 0.04	19.14	18 53 23.46	4.67
	υ Draconis . . .	26	. .	. .	. .	12.6	15.6	19.4	23.4	26.6	. .	. .	. .	56 19.52	0.07	19.14	18 56 0.45	1.74
	* − 30° 51′ . .	27	45.1	47.6	48.9	0.1	1.3	2.7	4.0	5.1	16.4	17.6	20.0	1 2.62	0.06	19.14	19 0 43.54	5.55
	Lalande 36238 .	28	12.1	14.6	16.1	27.8	29.3	30.7	32.1	33.5	45.5	46.8	49.4	9 30.72	0.03	19.14	19 9 11.61	2.81
	* − 19° 14′ . .	29	50.8	53.0	54.3	4.4	5.4	6.7	7.9	9.0	19.4	20.4	22.5	13 6.71	+ 0.05	19.14	19 12 47.62	4.99
	* − 19° 18′ . .	30	. .	. .	. .	39.6	40.7	42.9	59.0	1.5	2.8	4.3	5.5	13 54.54	− 27.51	19.14	19 13 7.89	4.99
	* − 34° 32′ . .	31	1.1	3.6	4.7	16.7	17.7	19.4	20.7	21.9	33.7	35.0	37.5	17 19.27	+ 0.06	19.14	19 17 0.19	5.61
	* − 34° 39′ . .	32	. .	. .	. .	44.7	46.2	48.7	7.4	10.2	11.6	13.2	14.8	18 2.10	− 31.55	19.14	19 17 11.41	5.61
	* − 26° 1′ . .	33	36.7	38.9	40.2	50.9	51.9	53.4	54.6	55.7	6.5	7.7	10.0	21 53.22	+ 0.06	19.14	19 21 34.24	5.20
	O. Arg. S. 19689 .	34	8.8	11.1	12.3	22.7	23.8	25.2	26.4	27.4	38.0	39.2	40.4	25 25.03	0.05	19.14	19 25 5.94	5.04
	Lacaille 8158 . .	†35	30.8	33.5	35.2	48.1	49.4	50.8	52.4	53.7	6.9	8.2	11.0	28 50.91	0.07	19.14	19 28 31.84	+ 5.90
	σ Draconis . . .	36	. .	. .	. .	50.7	53.3	56.9	0.4	3.5	. .	. .	. .	32 56.96	0.06	19.14	19 32 37.88	− 1.67
	* − 43° 37′ . .	†37	. .	39.2	40.4	53.6	55.2	56.6	58.4	59.9	13.0	14.7	. .	36 56.78	0.08	19.14	19 36 37.72	+ 5.93
	* + 4° 41′ . .	38	49.4	51.5	52.7	2.3	3.4	4.5	5.7	6.7	16.4	17.5	19.5	40 4.51	0.04	19.14	19 39 45.41	4.00
	Weisse 1060 . .	39	19.9	22.0	23.2	33.0	33.9	35.3	36.5	37.6	47.3	48.4	50.5	42 35.24	0.04	19.14	19 42 16.14	3.78
	O. Arg. S. 20053 .	40	28.6	30.9	32.0	43.0	44.1	45.6	46.7	47.8	58.9	0.1	2.4	46 45.44	0.05	19.14	19 46 26.35	4.91
	O. Arg. S. 20100 .	†41	32.1	34.3	35.6	46.5	47.5	49.0	50.4	51.6	2.6	3.7	6.0	49 49.03	0.06	19.14	19 49 29.95	5.09
	O. Arg. S. 20145 .	42	2.8	5.0	6.3	16.6	17.7	19.0	20.3	21.6	31.9	33.0	35.3	53 19.05	0.05	19.14	19 52 59.96	4.88
	O. Arg. S. 20194 .	43	23.5	25.8	27.1	38.0	39.0	40.4	41.8	42.9	53.9	55.2	57.5	56 40.46	0.06	19.14	19 56 21.38	5.05
	Lacaille 8341 . .	44	3.0	5.5	7.1	19.0	20.2	21.6	23.0	24.4	36.2	37.6	40.2	59 21.62	0.07	19.14	19 59 2.55	5.36
	O. Arg. S. 20276 .	45	14.4	16.7	17.9	28.1	29.3	30.7	32.0	33.1	43.3	44.6	46.7	2 30.62	0.05	19.14	20 2 11.53	4.78
	O. Arg. S. 20309 .	46	56.8	58.9	0.2	10.8	11.9	13.2	14.6	15.7	26.2	27.5	29.8	5 13.24	0.06	19.14	20 4 54.16	4.88
	* − 24° 35′ . .	47	47.5	49.8	51.0	1.5	2.6	4.0	5.2	6.3	16.9	18.1	20.5	8 3.95	+ 0.05	19.14	20 7 44.86	4.84
	σ Capricorni . . .	†48	29.8	31.0	32.6	34.0	36.3	. .	39.9	42.4	43.7	45.0	46.3	12 8.10	− 0.32	19.15	20 11 48.63	4.64
	* − 19° 34′ . .	49	52.0	54.3	55.5	5.8	6.9	8.1	9.3	10.5	20.8	21.9	24.0	12 8.10	+ 0.05	19.15	20 11 49.00	4.64
	* − 25° 25′ . .	50	14.0	16.0	17.5	28.2	29.4	30.7	31.9	33.0	43.7	44.9	47.1	15 30.58	+ 0.06	−19.15	20 15 11.49	+ 4.81

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Sept. 30, 21.4	− 19.15	− 0.004	− 0.02	+ 0.04

35. Saw no other.
37. Faint.
41. Preceded by a fainter star.
48. Northward.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Sept. 30	O. Arg. S. 20482 .	1	37.8	40.0	41.3	51.7	52.9	54.2	55.5	56.6	7.1	8.4	10.4	17 54.17	+ 0.05	−19.15	20 17 35.07	+ 4.96
Y.	Lacaille 8450 . .	2	11.4	14.0	15.4	27.0	28.3	29.8	31.2	32.4	44.0	45.5	47.9	20 29.72	0.06	19.15	20 20 10.63	5.14
	Lacaille 8471 . .	3	34.4	37.0	38.4	51.4	52.9	54.3	55.8	57.2	10.3	11.7	14.5	24 54.35	0.07	19.15	20 24 35.27	5.40
	* − 33° 55′ . .	4	39.2	41.6	42.9	54.6	55.8	57.3	58.7	59.8	11.5	12.8	15.1	29 57.21	0.06	19.15	20 29 38.12	5.02
	B. A. C. 7136 . .	5	45.2	47.5	48.9	59.6	0.7	2.1	3.5	4.6	15.5	16.8	18.9	33 2.12	0.06	19.15	20 32 43.03	4.75
	* − 35° 38′ . .	6	53.5	56.1	57.5	9.4	10.7	12.0	13.5	14.8	26.6	27.8	30.4	37 12.03	0.07	19.15	20 36 52.95	5.00
	* − 35° 38′ . .	†7	57.4	0.1	1.4	13.3	14.5	16.0	17.4	18.7	30.5	31.9	34.4	39 15.96	0.07	19.15	20 38 56.88	5.00
	O. Arg. S. 20884 .	8	16.2	18.4	19.7	30.1	31.2	32.4	33.7	34.8	45.2	46.4	48.6	42 32.43	0.05	19.15	20 42 13.33	4.53
	μ Aquarii . . .	9	38.1	40.1	41.4	51.2	52.1	53.4	54.5	55.6	5.4	6.5	8.6	45 53.35	0.04	19.15	20 45 34.24	4.13
	* − 39° 29′ . .	†10	41.6	44.1	45.5	. .	. .	. .	. .	. .	16.4	17.6	20.3	50 0.92	0.07	19.15	20 49 41.84	5.06
	* − 35° 41′ . .	11	2.8	5.5	6.8	18.5	19.8	21.1	22.7	24.0	35.8	37.3	39.7	53 21.27	0.07	19.15	20 53 2.19	4.39
	* − 35° 7′ . .	12	33.6	36.1	37.6	49.4	50.5	51.9	53.4	54.7	6.5	7.8	10.2	32 51.97	0.07	19.15	21 32 32.89	4.52
	B. A. C. 7562 . .	13	59.0	1.0	2.3	12.0	13.1	14.4	15.6	16.6	26.3	27.4	29.4	38 14.28	+ 0.04	19.15	21 37 55.17	3.86
	* − 9° 39′ . .	14	30.6	31.7	33.2	34.4	36.4	. .	37.1	39.8	41.1	42.4	43.8	38 7.05	− 0.31	19.15	21 37 47.59	3.86
	c^1 Capricorni . .	15	43.4	44.5	45.9	47.1	49.3	. .	50.2	52.7	53.9	55.2	56.4	38 19.86	− 0.31	19.15	21 38 0.40	3.86
	B. A. C. 7639 . .	16	35.5	37.7	38.9	49.0	50.1	51.4	52.5	53.6	3.8	4.8	7.0	49 51.30	+ 0.05	19.15	21 49 32.20	4.00
	O. Arg. S. 21789 .	17	34.1	36.2	37.5	47.7	48.9	50.2	51.3	52.4	3.0	4.0	6.3	53 50.15	+ 0.05	19.15	21 53 31.05	4.04
	* − 11° 18′ . .	18	. .	. .	. .	2.7	3.8	5.0	6.2	7.4	17.0	18.1	20.4	56 10.08	− 5.02	19.15	21 55 45 91	3.81
	B. A. C. 7697 . .	19	22.3	24.5	25.7	35.4	36.6	37.7	38.9	39.9	49.9	50.9	53.0	0 37.71	+ 0.05	19.15	22 0 18.61	3.78
	* − 38° 41′ . .	20	37.8	40.5	42.0	54.4	55.6	57.1	58.6	59.9	12.4	13.5	16.3	3 57.10	0.07	19.15	22 3 38.02	4.33
	θ Aquarii . . .	21	37.6	38.7	40.1	41.5	43.7	. .	. .	46.7	48.0	49.3	50.6	10 10.69	3.05	19.15	22 9 54.59	3.69
	O. Arg. S. 22089 .	22	14.3	16.8	18.0	28.9	30.2	31.6	32.9	34.1	45.4	46.4	48.8	14 31.58	0.06	19.15	22 14 12.49	4.06
	Lacaille 9120 . .	23	47.7	50.0	51.4	2.1	3.2	4.7	5.9	7.0	17.9	18.9	21.4	17 4.56	0.06	19.15	22 16 45.47	4.03
	Weisse 398 . .	24	47.1	49.3	50.4	0.4	1.4	2.6	3.7	4.8	14.7	15.8	18.0	20 2.56	0.05	19.15	22 19 43.46	3.71
	* + 37° 27′ . .	25	31.9	34.7	36.0	48.1	49.4	50.9	52.3	53.7	5.7	7.1	9.7	27 50.86	0.03	19.15	22 27 31.74	2.25
	9 Lacertæ . . .	26	56.5	59.7	1.4	16.6	18.3	20.1	21.9	23.6	39.0	40.6	43.8	32 20.14	0.04	19.15	22 32 1.03	1.37
	12 Lacertæ . . .	27	37.0	39.7	41.3	53.7	55.0	56.6	58.0	59.5	11.9	13.3	15.8	35 56.53	0.03	19.15	22 35 37.41	2.16
	Lalande 44534 .	28	57.6	0.3	1.8	14.0	15.3	16.9	18.3	19.7	32.0	33.3	36.0	39 16.84	0.03	19.15	22 38 57.72	2.22
	Weisse (2) 967 .	29	. .	14.7	16.0	28.1	29.4	30.9	32.3	33.6	45.6	46.9	. .	42 30.83	0.03	19.16	22 42 11.70	2.32
	Weisse 976 . .	30	40.8	42.9	44.0	53.7	54.9	56.1	57.3	58.4	8.2	9.3	11.5	47 56.10	0.05	19.16	22 47 36.99	3.57
	Weisse 1017 . .	31	0.4	2.7	3.7	13.5	14.5	15.8	17.0	18.1	27.9	29.0	30.9	50 15.77	0.05	19.16	22 49 56.66	3.56
	O. Arg. S. 22545 .	32	24.3	26.6	27.7	38.1	39.2	40.6	41.8	42.9	53.5	54.6	56.7	53 40.55	0.05	19.16	22 53 21.44	3.71
	B. A. C. 8025 . .	33	14.6	17.2	18.5	30.4	31.5	33.0	34.4	35.6	47.3	48.7	51.4	56 32.96	0.07	19.16	22 56 13.87	3.81
	c^2 Aquarii . . .	34	30.0	32.3	33.5	43.7	44.7	46.1	47.4	48.5	. .	. .	. .	2 40.78	5.42	19.16	23 2 27.04	3.64
	* + 37° 10′ . .	35	7.3	9.8	11.3	23.5	24.6	26.2	27.6	28.9	41.2	42.5	45.0	5 26.17	0.03	19.16	23 5 7.04	2.36
	Piazzi 21 . . .	36	0.3	2.4	3.5	13.1	14.3	15.4	16.5	17.6	27.2	28.3	30.2	9 15.35	0.04	19.16	23 8 56.23	3.33
	Weisse 227 . .	37	11.1	13.2	14.3	24.0	25.0	26.2	27.3	28.4	38.0	39.1	41.1	12 26.15	0.04	19.16	23 12 7.03	3.30
	64 Pegasi	38	33.2	35.7	37.0	48.4	49.4	50.8	52.2	53.4	4.7	5.9	8.3	15 50.82	0.03	19.16	23 15 31.69	2.63
	67 Pegasi	39	28.0	30.5	31.7	43.1	44.3	45.7	47.1	48.4	59.7	0.9	3.4	18 45.71	0.03	19.16	23 18 26.58	2.62
	B. A. C. 8175 . .	40	19.5	21.7	22.8	32.5	33.5	34.8	36.0	37.0	46.9	48.0	50.1	21 34.80	0.05	19.16	23 21 15.69	3.46
	Weisse 473 . .	41	27.9	30.2	31.3	40.8	41.8	43.0	44.1	45.2	54.8	55.9	57.0	24 42.91	0.04	19.16	23 24 23.79	3.29
	Lalande 46188 .	42	14.7	17.5	18.8	30.9	32.1	33.7	35.2	36.5	48.5	49.8	52.4	28 33.65	0.03	19.16	23 28 14.52	2.45
	Weisse (2) 639 .	43	. .	. .	. .	51.3	52.5	53.9	55.4	56.6	. .	. .	. .	30 53.94	0.03	19.16	23 30 34.81	2.54
	Weisse (2) 658 .	44	. .	2.6	3.9	15.5	16.7	18.3	19.7	21.1	32.8	34.0	. .	31 18.29	0.03	19.16	23 30 59.16	2.54
	* − 1° 26′ . .	45	21.1	23.3	24.3	33.8	34.9	36.1	37.3	38.4	47.8	49.0	51.1	38 36.10	0.04	19.16	23 38 16.98	3.31
	O. Arg. S. 23052 .	46	27.2	29.5	30.6	40.7	41.8	. .	44.2	45.3	55.5	56.5	58.6	41 42.99	0.05	19.16	23 41 23.88	3.42
	108 Aquarii . . .	47	37.9	40.2	41.3	51.7	52.8	54.0	55.2	56.4	6.6	7.8	9.9	44 53.98	0.05	19.16	23 44 34.87	3.42
	O. Arg. S. 23124 .	48	43.8	46.0	47.2	57.3	58.5	59.7	0.9	2.0	12.3	13.3	15.5	48 59.68	0.05	19.16	23 48 40.57	3.40
	O. Arg. S. 23156 .	49	26.5	28.6	29.9	40.4	41.4	42.8	44.0	45.2	55.5	56.7	58.9	51 42.72	0.05	19.16	23 51 23.61	3.40
	* − 26° 21′. . .	50	50.6	52.8	54.0	4.9	6.0	7.2	8.7	9.8	20.5	21.6	23.8	54 7.26	+ 0.06	−19.16	23 53 48.16	+ 3.39

7. Only stars.
10. Faint.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
Sept. 30, 21.4	− 19.15	− 0.004	− 0.02	+ 0.04

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Sept. 30	2 Ceti	1	4.6	6.8	8.1	18.2	19.2	20.5	21.7	22.8	33.0	34.0	36.2	57 20.46	+ 0.05	−19.16	23 57 1.35	+ 3.57
Y.	5 Ceti	2	33.4	35.6	36.7	46.3	47.3	48.6	49.7	50.7	0.4	1.5	3.6	1 48.53	0.04	19.16	0 1 29.41	3.24
	γ Pegasi	3	. .	35.2	36.3	46.4	47.5	48.7	49.9	50.9	1.0	2.0	. .	6 48.56	+ 0.04	19.16	0 6 29.54	3.13
Oct. 1	51 Cephei, S. P.	4	. .	. .	. .	23.0	46.0	29.0	34.0	17.0	43.0	13.0	37.0	47 7.75	− 8 50.52	19.89	. . . .	46.54
	O. Arg. S. 18953	5	24.5	26.8	27.9	38.1	39.2	40.5	41.7	42.8	53.0	54.2	56.4	53 40.46	+ 0.05	19.89	18 53 20.62	5.14
	ζ Aquilæ	6	26.5	28.7	29.8	39.7	40.8	42.0	43.2	44.3	54.2	55.3	57.5	59 42.00	0.04	19.90	. . . .	3.87
	Lalande 35866	7	53.9	56.6	58.6	10.1	11.3	12.8	14.3	15.6	27.7	29.1	31.7	2 12.83	0.03	19.90	19 1 52.96	2.82
	53 Draconis	8	4.5	8.3	10.3	27.8	29.4	31.7	33.8	35.7	53.2	55.4	58.9	9 31.73	0.04	19.90	19 9 11.87	1.16
	* − 19° 15′	9	51.5	53.7	55.0	5.1	6.2	7.5	8.7	9.8	. .	. .	. .	13 2.19	+ 5.32	19.90	19 12 47.61	5.01
	* − 19° 19′	10	. .	. .	. .	25.3	26.4	27.7	28.8	30.0	40.2	41.3	43.5	13 32.90	− 5.22	19.90	19 13 7.78	5.01
	Lalande 36729	11	40.9	43.7	45.2	57.5	58.8	0.4	1.8	3.2	15.6	17.0	19.7	20 0.35	+ 0.03	19.90	19 19 40.48	2.60
	Lalande 36891	12	0.5	3.2	4.7	16.8	18.1	19.6	21.1	22.4	34.5	35.8	38.5	23 19.56	0.03	19.90	19 22 59.69	2.66
	O. Arg. S. 19758	13	51.7	54.2	55.4	6.1	7.4	8.7	10.0	11.3	22.1	23.3	25.6	29 8.71	0.06	19.90	19 28 48.87	5.25
	* − 27° 39′	14	18.2	20.5	21.7	32.7	33.7	35.0	36.4	37.5	48.5	49.7	52.0	30 35.08	0.06	19.90	19 30 15.24	5.23
	* − 32° 32′	15	12.4	14.9	16.1	27.8	28.9	30.3	31.7	33.0	44.5	45.5	48.0	34 30.28	0.06	19.90	19 34 10.44	5.41
	* − 27° 1′	16	46.5	48.7	49.9	1.0	2.1	3.5	4.6	5.8	16.5	17.6	20.2	38 3.31	+ 0.06	19.90	19 37 43.47	5.15
	O. Arg. S. 19956	17	. .	. .	. .	59.8	0.9	2.1	3.3	4.5	14.9	16.1	18.3	40 7.49	− 5.33	19.90	19 39 42.26	4.96
	* − 26° 30′	18	43.1	45.4	46.6	57.4	58.5	59.8	1.1	2.4	13.2	14.3	16.5	42 59.85	+ 0.06	19.91	19 42 40.00	5.10
	Weisse 1160	19	43.7	45.8	47.1	57.0	58.0	59.3	0.5	1.6	11.5	12.5	14.6	46 59.24	0.05	19.91	19 46 39.38	+ 4.62
	B. A. C. 6869	20	16.3	21.1	23.8	45.9	48.2	51.0	53.9	56.4	18.4	21.0	25.8	53 51.07	0.05	19.91	19 53 31.21	− 0.47
	O. Arg. S. 20200	21	43.8	45.9	47.1	57.4	58.6	59.9	1.2	2.3	12.7	14.0	16.3	56 59.93	0.05	19.91	19 56 40.07	+ 4.85
	* + 38° 5′	22	. .	26.3	27.8	39.9	41.1	42.7	44.3	45.5	57.7	59.1	. .	0 42.71	0.03	19.91	20 0 22.83	2.44
	* + 37° 44′	23	33.5	36.3	37.7	. .	. .	. .	. .	. .	7.4	8.8	11.5	3 52.53	0.03	19.91	20 3 32.65	2.45
	* + 37° 45′	24	. .	. .	. .	52.4	53.7	55.2	56.7	58.2	. .	. .	. .	3 55.24	0.03	19.91	20 3 35.36	2.45
	Weisse (2) 206	25	22.7	25.1	26.3	36.6	37.7	39.0	40.2	41.4	51.7	52.8	55.0	6 38.95	+ 0.03	19.91	20 6 19.07	3.25
	Weisse (2) 304	†26	. .	. .	. .	12.1	13.5	16.0	35.4	38.6	40.3	41.8	43.2	9 30.11	− 33.18	19.91	20 8 37.02	2.38
	* − 29° 35′	†27	59.6	1.0	2.7	4.0	6.5	. .	15.5	18.3	19.6	21.1	22.5	12 41.08	− 0.34	19.91	20 12 20.83	5.01
	B. A. C. 6984	28	24.7	27.1	28.3	39.4	40.6	41.9	43.4	44.4	55.7	56.9	59.3	12 41.97	+ 0.06	19.91	20 12 22.12	5.01
	* − 24° 54′	29	. .	. .	. .	37.2	38.3	39.5	40.8	41.9	52.6	53.9	56.1	15 45.04	− 5.44	19.91	20 15 19.69	4.82
	Lacaille 8439	30	12.7	15.3	16.4	27.7	29.0	30.5	31.9	33.1	44.6	45.8	48.3	18 30.48	+ 0.06	19.91	20 18 10.63	5.09
	* − 35° 47′	†31	25.8	28.3	29.6	41.5	42.8	44.2	45.7	47.0	58.8	0.1	2.6	20 44.22	0.07	19.91	20 20 24.38	5.19
	Lacaille 8475	32	2.4	5.2	6.8	19.5	20.7	22.3	23.8	25.3	38.0	39.2	42.2	25 22.31	0.07	19.91	20 25 2.47	5.35
	* + 37° 24′	33	27.0	29.8	31.3	43.3	44.6	46.2	47.6	48.9	1.1	2.4	5.0	29 46.11	0.03	19.92	20 29 26.22	2.52
	O. Arg. S. 20697	34	4.4	6.7	7.7	18.1	19.3	20.5	21.8	22.9	33.2	34.3	36.6	32 20.50	+ 0.05	19.92	20 32 0.63	4.58
	O. Arg. S. 20709	35	. .	. .	. .	51.8	52.9	54.3	55.6	56.6	7.0	8.2	10.4	32 59.60	− 5.30	19.92	20 32 34.38	4.58
	B. A. C. 7175	36	46.4	49.1	50.5	2.9	4.3	5.7	7.2	8.8	21.3	22.7	25.3	38 5.84	+ 0.07	19.92	20 37 45.99	5.20
	* − 33° 36′	37	37.6	40.1	41.5	53.2	54.4	55.8	57.2	58.4	10.0	11.3	13.9	40 55.76	0.06	19.92	20 40 35.90	4.94
	* − 17° 47′	38	36.5	38.7	39.9	49.8	51.0	52.3	53.6	54.7	4.8	5.7	8.0	43 52.27	0.05	19.92	20 43 32.40	4.40
	μ Aquarii	39	38.9	40.9	42.1	51.9	52.9	54.2	55.3	56.4	6.2	7.3	9.4	45 54.14	0.04	19.92	. . . .	4.15
	* − 31° 1′	40	28.6	30.9	32.2	43.5	44.7	46.0	47.4	48.6	59.9	1.1	3.6	51 46.05	0.06	19.92	20 51 26.19	4.76
	f¹ Cygni	41	20.7	23.9	25.5	39.5	40.9	42.7	44.5	46.1	0.2	1.7	4.8	55 42.77	0.04	19.92	20 55 22.89	1.62
	Lacaille 8740	42	32.5	34.8	36.0	46.5	47.5	48.8	50.1	51.3	1.6	2.8	5.0	6 48.81	0.05	19.92	21 6 28.94	4.40
	Weisse 156	43	50.7	52.9	53.9	3.6	4.7	6.0	7.2	8.3	18.1	19.1	21.3	9 5.98	0.04	19.92	21 8 46.10	4.02
	Weisse 239	44	13.9	16.1	17.2	27.0	28.1	29.4	30.6	31.6	41.6	42.7	44.8	12 29.36	0.05	19.92	21 12 9.49	4.31
	Weisse (2) 325	45	39.1	41.2	42.4	52.6	53.7	55.0	56.2	57.3	7.5	8.7	10.8	14 54.95	0.04	19.92	21 14 35.07	3.10
	Weisse 346	46	13.5	15.7	16.7	26.7	27.7	28.9	30.1	31.1	41.0	42.1	44.2	17 28.88	0.05	19.93	21 17 9.00	4.01
	* + 35° 16′	47	55.7	58.4	59.7	11.4	12.7	14.2	15.7	17.0	28.7	30.0	32.6	21 14.19	0.03	19.93	21 20 54.29	2.37
	O. Arg. S. 21443	48	8.1	10.4	11.6	22.0	23.1	24.4	25.6	26.8	37.3	38.4	40.6	24 24.39	0.05	19.93	21 24 4.51	4.27
	Lalande 42034	49	17.4	20.0	21.4	33.6	34.8	36.4	37.9	39.2	51.3	52.8	55.3	28 36.37	0.03	19.93	21 28 16.47	2.21
	72 Cygni	50	26.7	. .	30.7	43.0	44.3	45.8	47.3	48.4	0.8	. .	4.8	29 45.76	+ 0.03	−19.93	21 29 25.86	+ 2.21

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Oct. 1, 21.6	− 19.93	− 0.013	− 0.02	+ 0.04

26. Another star to southward 3′.
27. Northward.
31. Faint.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Oct. 1	B. A. C. 7536 . .	1	29.1	31.3	32.5	42.8	43.9	45.2	46.6	47.7	57.9	59.0	1.2	34 45.20	+ 0.05	−19.93	21 34 25.32	+ 4.15
Y.	π^1 Cygni	2	23.9	27.3	29.1	44.2	45.7	47.7	49.4	51.0	6.3	8.0	11.3	37 47.63	0.04	19.93	21 37 27.74	1.26
	Lalande 42507 .	3	19.6	22.2	23.6	35.7	36.8	38.5	39.8	41.2	53.4	54.6	57.2	41 38.42	0.03	19.93	21 41 18.52	2.26
	* − 5° 16′ . .	4	53.1	55.1	56.2	5.8	6.8	8.1	9.3	10.3	20.1	21.0	23.2	44 8.09	0.04	19.93	21 43 48.20	3.73
	* − 11° 20′ . .	5	4.6	6.8	7.7	17.7	18.7	19.9	21.0	22.1	31.9	33.0	35.1	47 19.86	0.05	19.93	21 46 59.98	3.86
	B. A. C. 7639 . .	6	36.2	38.6	39.7	49.8	50.9	52.2	53.3	54.5	4.7	5.8	7.9	49 52.15	0.05	19.93	21 49 32.27	4.01
	O. Arg. S. 21787 .	7	34.8	37.2	38.3	48.6	49.7	50.8	52.1	53.3	3.7	4.8	7.1	52 50.95	0.05	19.93	21 52 31.07	4.06
	B. A. C. 7675 . .	8	11.7	14.0	15.4	26.2	27.2	28.6	29.9	31.0	41.9	43.1	45.5	57 28.59	+ 0.06	19.93	21 57 8.72	4.15
	* − 27° 29′ . .	9	. .	. .	. .	3.7	4.8	6.1	7.4	8.8	19.6	20.9	23.0	58 11.79	− 5.55	19.93	21 57 46.31	4.15
	O. Arg. S. 21915 .	10	28.3	30.5	31.7	42.2	43.2	44.5	45.8	46.9	57.4	58.5	0.7	1 44.52	+ 0.05	19.94	22 1 24.63	4.02
	O. Arg. S. 21962 .	11	29.6	31.9	33.1	43.8	45.0	46.4	47.8	48.9	59.8	0.9	3.3	4 46.41	0.06	19.94	22 4 26.53	4.10
	Weisse 118 . .	12	36.3	38.5	39.6	49.6	50.7	52.0	53.1	54.3	4.2	5.5	7.6	7 51.95	0.05	19.94	22 7 32.06	3.85
	O. Arg. S. 22060 .	13	23.3	25.5	26.8	37.1	38.1	39.4	40.6	41.8	52.2	53.3	55.5	11 39.42	0.05	19.94	22 11 19.53	3.94
	O. Arg. S. 22089 .	14	15.2	17.6	18.8	29.9	31.1	32.4	33.8	35.0	46.0	47.2	49.6	14 32.42	0.06	19.94	22 14 12.54	4.07
	Lacaille 9120 . .	15	48.8	51.0	52.3	3.2	4.3	5.6	6.8	8.0	18.8	20.1	22.3	17 5.56	0.06	19.94	22 16 45.68	4.01
	* − 29° 2′ . .	16	5.6	7.9	9.2	20.2	21.4	22.7	24.0	25.4	36.4	37.5	40.0	19 22.75	0.06	19.94	22 19 2.87	4.03
	* − 16° 21′ . .	17	37.9	40.2	41.3	51.4	52.3	53.6	54.8	55.9	5.9	7.1	9.2	21 53.60	0.05	19.94	22 21 33.71	3.79
	O. Arg. S. 22323 .	18	47.1	49.4	50.6	0.8	2.0	3.3	4.5	5.7	16.1	17.4	19.6	27 3.32	0.05	19.94	22 26 43.43	3.87
	Lalande 44195 .	19	13.1	15.6	17.0	28.6	29.8	31.3	32.8	34.0	45.8	47.1	49.6	30 31.34	0.03	19.94	22 30 11.43	2.39
	Weisse (2) 687 .	20	. .	56.1	57.6	9.3	10.5	12.0	13.4	14.5	26.5	27.6	. .	31 11.94	0.03	19.94	22 30 52.03	2.40
	O. Arg. S. 22383 .	21	16.0	18.4	19.6	30.0	31.0	32.4	33.6	34.8	45.0	46.1	48.4	38 32.30	0.05	19.94	22 38 12.41	3.78
	* − 21° 33′ . .	22	59.3	1.7	2.8	13.3	14.3	15.6	16.8	17.9	28.3	29.5	31.7	39 15.56	0.05	19.94	22 38 55.67	3.78
	* − 30° 15′ . .	23	2.8	5.1	6.4	17.5	18.7	20.2	21.6	22.7	33.9	35.1	37.6	42 20.15	0.06	19.94	22 42 0.27	3.87
	Lacaille 9292 . .	†24	3.4	6.1	7.4	20.1	21.4	22.9	24.4	25.8	38.5	39.8	42.5	46 22.94	0.07	19.94	22 46 3.07	3.95
	δ Piscis Australis .	25	42.6	45.1	46.5	58.0	59.2	0.7	2.1	3.2	14.8	16.0	18.4	49 0.60	0.06	19.95	22 48 40.71	3.86
	Weisse 1068 . .	26	14.1	16.2	17.3	27.0	28.1	29.3	30.5	31.4	41.3	42.4	44.5	52 29.28	0.04	19.95	22 52 9.37	3.53
	Weisse 1136 . .	27	1.6	3.7	4.8	14.6	15.6	16.8	17.9	19.0	28.7	29.7	31.9	55 16.75	0.04	19.95	22 54 56.84	3.50
	Weisse 1204 . .	28	41.8	43.9	45.2	55.0	56.0	57.3	58.5	59.6	9.4	10.5	12.6	57 57.25	0.05	19.95	22 57 37.35	3.56
	B. A. C. 8066 . .	29	51.1	54.0	55.4	8.1	9.3	11.1	12.6	14.0	26.8	28.3	30.9	3 11:05	0.07	19.95	23 2 51.17	3.80
	O. Arg. S. 22687 .	30	6.9	9.1	10.4	20.9	22.0	23.4	24.8	25.9	36.3	37.5	39.7	7 23.35	0.05	19.95	23 7 3.45	3.64
	* − 6° 17′ . . .	31	. .	6.1	7.2	16.9	17.8	19.1	20.2	21.4	31.1	32.0	. .	11 19.09	+ 0.04	19.95	23 10 59.18	3.43
	Weisse 199 . .	32	. .	. .	. .	41.0	42.0	44.1	59.5	1.9	3.1	4.5	5.7	11 55.22	− 26.12	19.95	23 11 9.15	3.43
	Weisse 222 . .	33	. .	. .	. .	29.7	30.6	32.7	48.2	50.6	51.8	53.0	54.4	12 43.88	− 26·13	19.95	23 11 57.80	3.43
	* − 34° 6′ . .	34	46.9	49.4	50.7	2.2	3.5	4.9	6.5	7.7	19.4	20.5	23.0	17 4.97	+ 0.06	19.95	23 16 45.08	3.64
	* − 22° 27′ . .	35	44.3	46.5	47.8	58.2	59.2	0.5	1.8	2.9	13.2	14.5	16.7	20 0.51	+ 0.05	19.95	23 19 40.61	3.56
	Weisse 452 . .	36	. .	. .	. .	33.3	34.3	35.6	36.8	37.8	47.6	48.6	50.7	23 40.59	− 4.97	19.95	23 23 15.67	3.21
	* + 34° 14′ . .	37	0.4	2.9	4.2	15.9	17.1	18.6	20.0	21.2	32.9	34.3	36.7	26 18.56	+ 0.03	19.95	23 25 58.64	2.56
	Rumker 11367 .	38	50.2	52.3	53.4	3.0	4.1	5.4	6.6	7.6	17.4	18.4	20.5	29 5.35	0.04	19.95	23 28 45.44	3.40
	Lacaille 9545 . .	39	54.2	56.5	57.7	8.3	9.2	10.5	11.7	12.9	23.5	24.7	26.9	33 10.55	0.05	19.95	23 32 50.65	3.49
	ω^2 Aquarii . . .	40	59.8	1.9	3.0	13.0	14.0	15.2	16.5	17.6	27.6	28.7	30.7	36 15.27	0.05	19.96	23 35 55.36	3.43
	O. Arg. S. 23052 .	41	27.9	30.3	31.5	41.6	42.6	43.8	45.0	46.1	56.4	57.4	59.6	41 43.84	0.05	19.96	23 41 23.93	3.42
	O. Arg. S. 23082 .	42	4.6	6.7	7.9	18.0	19.1	20.5	21.7	22.8	33.1	34.2	36.3	44 20.45	0.05	19.96	23 44 0.54	3.42
	Lalande 46836 .	43	27.9	30.5	32.0	44.2	45.5	47.1	48.6	50.0	2.2	3.7	6.1	47 47.07	0.03	19.96	23 47 27.14	2.49
	Weisse 1058 . .	44	32.6	34.7	35.8	45.5	46.5	47.6	48.8	49.9	59.5	0.6	2.6	52 47.65	0.04	19.96	23 52 27.73	3.24
	B. A. C. 8358 . .	45	41.2	46.3	48.7	. .	. .	. .	. .	. .	45.4	48.1	53.2	56 17.15	0.06	19.96	23 55 57.25	0.47
	* + 65° 22′ . .	46	. .	. .	. .	14.2	16.5	19.4	22.0	24.8	. .	. .	. .	56 19.38	0.06	19.96	23 55 59.48	0.47
	B. A. C. 8374 . .	47	53.2	55.3	56.4	6.2	7.3	8.5	9.7	10.8	20.6	21.8	23.9	0 8.52	0.04	19.96	23 59 48.60	3.14
	Lalande 17 . .	48	1.0	3.7	5.2	17.1	18.3	20.0	21.5	22.7	34.6	35.9	38.5	4 19.86	+ 0.03	19.96	0 3 59.93	2.64
	Weisse 89 . . .	49	. .	. .	. .	35.8	36.8	38.1	39.3	40.3	49.9	51.1	53.1	6 43.05	− 4.96	19.96	0 6 18.13	3.21
	Lalande 220 . .	50	55.3	57.7	59.2	10.9	12.2	13.7	15.2	16.5	28.2	29.6	32.2	10 13.70	+ 0.03	−19.96	0 9 53.77	+ 2.70

24. Saw no other.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Oct. 1, 21.6	− 19.93	− 0.013	− 0.02	+ 0.04

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Oct. 1	Lalande 221 . .	1	29.9	31.2	33.1	34.5	37.3	. .	51.0	54.1	55.6	57.3	58.8	10 14.28	− 0.40	−19.96	0 9 53.92	+ 2.70
Y.	Lalande 421 . .	2	4.3	7.0	8.5	20.6	21.8	23.3	24.9	26.3	38.5	39.8	42.5	16 23.41	+ 0.03	19.96	0 16 3.48	2.67
	* + 36° 10′ . .	3	1.6	4.0	5.5	17.4	18.7	20.0	21.4	22.7	34.8	36.1	38.7	22 20.08	0.03	19.97	0 22 0.14	2.75
	Lalande 736 . .	4	52.9	55.4	56.9	8.7	10.0	11.5	13.0	14.3	26.2	27.4	30.0	25 11.48	0.03	19.97	0 24 51.54	2.77
	* + 36° 6′ . . .	5	10.6	13.1	14.4	. .	. .	. .	. .	. .	43.8	45.0	47.6	28 29.08	0.03	19.97	0 28 9.14	2.79
	Lalande 849 . .	6	. .	. .	. .	27.1	28.4	29.9	31.3	32.7	. .	. .	. .	28 29.88	0.03	19.97	0 28 9.94	2.79
	Lalande 963 . .	7	. .	19.7	21.0	33.2	34.4	35.8	37.4	38.7	50.7	51.9	. .	31 35.87	0.03	19.97	0 31 15.93	2.81
	32 Andromedæ . .	8	2.6	5.4	6.8	19.2	20.6	22.1	23.5	24.9	37.3	38.6	41.2	34 22.02	0.03	19.97	0 34 2.08	2.76
	Weisse 642 . .	9	56.2	58.4	59.6	9.6	10.7	11.8	12.9	14.1	24.0	25.1	27.2	38 11.78	0.05	19.97	0 37 51.86	3.24
	Weisse 678 . .	10	7.4	9.5	10.6	20.3	21.2	22.5	23.7	24.7	34.3	35.4	37.5	40 22.46	0.04	19.97	0 40 2.53	3.24
	* + 1° 34′ . . .	11	34.7	36.8	37.9	47.6	48.6	49.7	50.9	52.0	1.7	2.6	4.7	42 49.75	0.04	19.97	0 42 29.82	3.24
	Weisse (2) 1167 .	12	6.3	8.6	9.9	20.9	22.0	23.5	24.8	26.0	37.1	38.4	40.7	46 23.47	0.03	19.97	0 46 3.53	3.02
	μ Andromedæ . .	13	30.9	33.5	34.8	46.9	48.1	49.8	50.3	51.7	4.8	6.1	8.7	49 49.60	0.03	19.97	0 49 29.66	2.89
	Lalande 1702 . .	14	8.6	11.1	12.5	24.0	25.3	26.9	28.3	29.6	41.3	42.6	45.0	53 26.84	0.03	19.97	0 53 6.90	2.97
	ε Piscium . . .	15	13.4	15.6	16.6	26.4	27.4	28.6	29.8	30.9	40.6	41.7	43.8	56 28.62	0.04	19.97	. . . .	3.19
	Weisse 1028 . .	16	25.2	27.3	28.5	38.1	39.2	40.3	41.5	42.6	52.2	53.2	55.3	59 40.31	0.04	19.97	0 59 20.38	3.25
	Weisse 15 . . .	17	20.4	22.5	23.6	. .	. .	. .	. .	. .	47.4	48.4	50.5	3 35.47	0.04	19.97	1 3 15.54	+ 3.25
	Polaris	18	. .	. .	. .	48.0	27.0	15.5	4.5	48.0	. .	. .	. .	12 16.60	0.82	19.98	. . . . .	− 38.33
5	ζ Aquilæ . . .	19	25.9	28.1	29.2	39.1	40.1	41.4	42.6	43.6	53.6	54.6	56.8	59 41.36	0.03	19.31	18 59 22.08	+ 3.94
	Lalande 35866 .	20	53.2	55.8	57.3	9.4	10.6	12.1	13.7	14.9	27.1	28.4	30.9	2 12.13	0.00	19.31	19 1 52.82	2.92
	* − 33° 48′ . .	21	12.3	14.8	16.1	27.8	28.9	30.4	31.8	33.2	44.6	45.9	48.4	7 30.38	0.12	19.31	19 7 11.19	5.75
	Lacaille 8064 . .	22	42.3	45.1	46.4	58.4	59.6	1.2	2.8	3.9	16.1	17.4	19.9	11 1.19	0.13	19.31	19 10 42.01	5.38
	υ Sagittarii . . .	23	15.3	17.6	18.7	28.7	29.7	31.0	32.2	33.3	43.4	44.5	46.6	14 31.00	0.08	19.31	19 14 11.77	4.96
	Lalande 36732 .	24	51.5	54.0	55.5	7.5	8.7	10.3	11.8	13.0	25.2	26.6	29.0	20 10.28	0.00	19.31	19 19 50.97	2.83
	Lalande 36774 .	25	39.1	41.7	43.0	55.1	56.3	57.8	58.3	0.6	12.8	14.1	16.8	20 57.78	0.00	19.31	19 20 38.47	2.82
	Lacaille 8138 . .	26	6.6	9.4	10.7	23.4	24.7	26.4	27.8	29.2	41.9	43.3	45.9	25 26.30	0.14	19.31	19 25 7.13	5.96
	O. Arg. S. 19775 .	27	29.8	32.0	33.2	43.4	44.5	45.8	47.2	48.2	58.5	59.5	1.9	29 45.82	+ 0.09	19.31	19 29 26.60	5.04
	B. A. C. 6730 . .	28	. .	. .	. .	40.9	42.4	44.3	46.2	47.8	. .	. .	. .	32 44.32	− 0.03	19.31	19 32 24.98	1.83
	θ Cygni	29	. .	. .	. .	11.4	12.9	14.7	16.5	18.1	. .	. .	. .	33 14.72	0.03	19.31	19 32 55.38	1.83
	Lalande 37753 .	30	48.3	51.1	52.5	4.6	6.0	7.4	9.0	10.3	22.6	23.9	26.5	43 7.47	− 0.01	19.31	19 42 58.15	+ 2.63
	λ Ursæ Minoris . .	31	45.7	46.4	. .	. .	. .	. .	. .	. .	. .	. .	. .	45 35.50	+10 55.89	19.31	. . . . .	− 114.59
	* − 27° 52′ . .	32	24.0	26.3	27.4	. .	. .	. .	. .	. .	54.2	55.5	57.8	49 40.87	0.11	19.31	19 49 21.67	+ 5.19
	O. Arg. S. 20100 .	33	32.3	34.4	35.7	. .	. .	. .	. .	. .	2.4	3.5	6.0	49 49.05	0.11	19.31	19 49 29.85	5.19
	* − 23° 7′ . . .	34	51.1	53.3	54.5	5.2	6.2	7.3	8.6	9.7	20.4	21.5	23.7	53 7.41	0.10	19.30	19 52 48.21	4.98
	O. Arg. S. 20175 .	35	18.0	20.2	21.4	31.5	32.5	33.8	35.0	36.1	46.3	47.4	49.6	55 33.80	+ 0.09	19.30	19 55 14.59	4.79
	O. Arg. S. 20180 .	36	. .	. .	. .	55.3	56.5	57.7	58.9	0.1	10.3	11.4	13.5	56 2.96	− 5.16	19.30	19 55 38.50	4.79
	Lacaille 8341 . .	37	2.8	5.6	6.9	18.8	20.0	21.5	22.8	24.2	36.2	37.6	40.1	59 21.50	+ 0.13	19.30	19 59 2.33	5.40
	B. A. C. 6923 . .	38	. .	53.8	55.1	5.3	6.3	7.6	8.9	10.1	20.2	21.3	. .	3 7.62	0.09	19.30	20 2 48.41	4.79
	* + 16° 18′ . .	39	22.6	24.8	26.0	36.0	37.1	38.3	39.5	40.6	50.7	51.7	53.9	6 38.29	0.03	19.30	20 6 19.02	3.53
	Gr. Cat. 1810 . .	40	57.3	59.4	0.4	10.5	11.5	12.8	14.0	15.1	25.1	26.1	28.3	9 12.77	+ 0.03	19.30	20 8 53.50	3.51
	* + 16° 19′ . .	41	. .	. .	. .	42.2	43.2	45.3	1.2	3.7	5.0	6.3	7.6	9 56.81	− 27.07	19.30	20 9 10.44	3.52
	* + 16° 19′ . .	42	40.7	42.8	44.0	54.0	55.0	56.2	57.4	58.5	8.8	9.8	11.8	10 56.27	+ 0.03	19.30	20 10 37.00	3.51
	* − 25° 24′ . .	43	13.8	16.2	17.5	28.1	29.2	30.6	31.9	33.1	43.6	44.8	47.0	15 30.53	0.10	19.30	20 15 11.33	4.91
	Lacaille 8439 . .	44	11.8	14.3	15.5	27.0	28.2	29.5	31.0	32.2	43.7	45.0	47.5	18 29.61	+ 0.12	19.30	20 18 10.43	5.16
	Weisse 610 . .	45	. .	. .	. .	38.7	39.8	40.9	42.0	43.2	52.9	54.0	56.1	25 45.95	− 4.96	19.30	20 25 21.69	4.28
	* − 19° 14′ . .	46	20.7	22.7	24.1	34.4	35.4	36.7	37.9	38.9	49.1	50.2	52.4	30 36.59	+ 0.09	19.30	20 30 17.38	4.59
	* − 19° 15′ . .	47	. .	. .	. .	57.5	58.6	59.8	1.0	2.2	12.4	13.4	15.6	31 5.06	− 5.18	19.30	20 30 40.58	4.59
	O. Arg. S. 20728 .	48	21.7	23.8	25.1	35.2	36.2	37.5	38.9	40.1	50.0	51.2	53.4	33 37.55	+ 0.09	19.30	20 33 18.34	4.57
	B. A. C. 7175 . .	49	45.5	48.2	49.7	2.3	3.3	4.9	6.5	7.8	20.5	21.8	24.6	38 5.01	0.14	19.30	20 37 45.85	5.28
	* − 33° 36′ . .	†50	. .	39.8	40.1	52.5	53.5	54.8	56.4	57.7	9.4	10.5	. .	40 54.97	+ 0.12	−19.30	20 40 35.79	+ 5.01

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
Oct. 5, 21.7	− 19.29	+ 0.008	− 0.09	+ 0.05

50. Faint.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V:	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Oct. 5	Lacaille 8596 . .	1	43.5	45.9	47.4	58.4	59.6	1.0	2.4	3.6	14.6	15.8	18.3	44 0.95	+ 0.11	−19.30	20 43 41.76	+ 4.85
Y.	O. Arg. S. 20937 .	2	45.1	47.5	48.6	59.6	0.7	2.0	3.5	4.7	15.6	16.8	19.2	47 2.12	0.11	19.30	20 46 42.93	4.78
	Lacaille 8628 . .	3	13.5	16.4	17.8	31.2	32.6	34.5	35.8	37.3	50.7	52.0	55.2	51 34.27	+ 0.15	19.30	20 51 15.12	5.31
	* − 12° 58′ . .	4	. .	. .	. .	. .	. . .	. .	41.3	43.8	45.1	46.3	47.7	55 44.84	− 34.46	19.30	20 54 51.08	4.25
	* − 12° 58′ . .	†5	. .	. .	. .	. .	. .	. .	58.9	1.4	2.6	4.0	5.3	56 2.44	34.46	19.30	20 55 8.68	4.25
	* + 35° 53′ . .	†6	. .	. .	. .	17.3	18.3	19.7	21.2	22.5	34.2	35.3	37.9	2 25.80	− 6.14	19.30	21 2 0.36	2.45
	ζ Cygni	7	23.4	25.9	27.2	38.2	39.5	40.8	42.0	43.4	54.4	55.5	58.0	7 40.75	+ 0.01	19.29	21 7 21 47	2.76
	* − 22° 4′ . .	8	7.8	10.0	11.2	21.6	22.6	24.0	25.2	26.4	36.8	37.8	40.1	10 23.95	+ 0.09	19.29	21 10 4.75	4.41
	* + 38° 21′ . .	9	59.3	2.0	3.5	15.6	16.9	18.4	19.9	21.2	33.7	35.0	37.7	16 18.47	− 0.01	19.29	21 15 59.17	2.28
	Weisse (2) 433 .	10	30.8	33.5	34.9	46.8	48.1	49.6	51.1	52.6	4.4	5.7	8.3	18 49.62	0.00	19.29	21 18 30.33	2.36
	B. A. C. 7463 . .	11	40.6	42.8	44.0	54.2	55.3	56.5	57.9	58.9	9.2	10.3	12.4	22 56.55	+ 0.09	19.29	21 22 37.35	4.27
	* − 16° 18′ . .	12	42.7	44.9	46.0	56.0	56.9	58.1	59.4	0.5	10.6	11.8	13.9	28 58.26	0.08	19.29	21 28 39.05	4.13
	42 Capricorni . .	13	28.2	30.4	31.6	41.5	42.4	43.7	45.0	46.1	56.0	57.1	59.2	34 43.75	+ 0.08	19.29	21 34 24.54	4.06
	79 Cygni	14	1.2	3.7	5.0	. .	. .	. .	. .	. .	35.1	36.5	39.1	38 20.10	− 0.01	19.29	21 38 0.80	2.29
	Weisse (2) 933 .	15	12.2	14.9	16.3	. .	. .	. .	. .	. .	46.1	47.5	50.0	38 31.17	− 0.01	19.29	21 38 11.87	2.29
	* + 38° 20′ . .	16	34.7	37.4	38.8	51.2	52.4	53.8	55.5	56.6	. .	. .	. .	46 47.55	+ 6.33	19.29	21 46 34.59	2.25
	* + 38° 18′ . .	17	. .	. .	. .	4.6	5.9	7.4	8.9	10.2	22.4	23.8	26.2	47 13.68	− 6.35	19.29	21 46 48.04	2.25
	Weisse (2) 1140 .	18	. .	. .	. .	37.3	38.6	40.0	41.6	42.9	55.0	56.5	59.1	47 46.38	6.34	19.29	21 47 20.75	2.26
	Lalande 42878 .	19	36.5	39.1	40.5	52.7	54.0	55.6	57.1	58.4	10.7	12.0	14.6	52 55.56	− 0.01	19.29	21 52 36.26	2.25
	O. Arg. S. 21836 .	20	28.2	30.6	31.8	42.6	43.7	45.0	46.2	47.5	58.2	59.5	1.7	56 45.00	+ 0.10	19.29	21 56 25.81	4.16
	O. Arg. S. 21837 .	21	5.9	7.5	8.7	10.2	12.6	. .	18.9	21.8	23.0	24.3	25.7	56 45.86	− 0.29	19.29	21 56 26.28	4.16
	O. Arg. S. 21915 .	22	. .	. .	. .	41.2	42.4	43.6	44.9	46.1	56.2	57.6	59.5	1 48.94	− 5.29	19.29	22 1 24.36	4.06
	O. Arg. S. 21964 .	†23	32.7	34.9	36.1	. .	. .	. .	. .	. .	1.8	3.0	5.2	4 48.95	+ 0.09	19.29	22 4 29.75	4.04
	* − 26° 22′ . .	24	47.6	50.1	51.3	2.1	3.1	4.4	5.6	6.9	17.7	18.9	21.2	8 4.45	0.10	19.29	22 7 45.26	4.10
	44 Aquarii . . .	25	. .	21.7	22.8	32.4	33.4	34.6	35.9	36.9	46.7	47.7	. .	10 34.68	0.06	19.29	22 10 15.45	3.68
	* − 35° 11′ . .	26	9.5	12.0	13.5	25.1	26.4	28.0	29.4	30.7	42.3	43.5	46.1	13 27.86	0.12	19.29	22 13 8.69	4.23
	O. Arg. S. 22121 .	27	50.4	52.7	54.0	5.1	6.4	7.6	8.7	10.1	21.2	22.3	24.7	17 7.56	0.11	19.29	22 16 48.38	4.09
	* + 36° 46′. . .	28	57.7	0.3	1.6	13.7	14.9	16.4	17.9	19.2	31.2	32.6	35.2	21 16.43	0.00	19.28	22 20 57.15	2.34
	58 Aquarii . . .	29	47.9	49.9	51.1	1.0	1.9	3.1	4.3	5.4	15.3	16.3	18.4	25 3.15	0.07	19.28	22 24 43.94	3.72
	* − 30° 22′ . .	30	0.4	3.0	4.1	15.2	16.4	17.8	19.0	20.3	81.6	32.9	35.1	36 17.80	+ 0.11	19.28	22 35 58.63	3.96
	Lalande 44534 .	31	57.7	0.5	2.0	14.1	15.4	16.9	18.3	19.8	32.1	33.5	36.0	39 16.94	− 0.01	19.28	22 38 57.65	2.28
	* − 29° 22′ . .	32	. .	. .	. .	51.8	52.9	54.2	55.5	53.6	.	. .	. .	41 54.20	+ 0.11	19.28	22 41 35.03	3.90
	λ Aquarii . . .	33	50.4	52.4	53.5	3.3	4.3	5.6	6.7	7.7	17.5	18.6	20.7	46 5.52	+ 0.07	19.28	22 45 46.31	3.60
	Lalande 44848 .	34	12.7	14.3	15.7	17.3	19.9	. .	33.4	36.5	37.9	39.5	41.0	48 56.82	− 0.43	19.28	22 48 37.11	2.47
	Lalande 44851 .	35	29.5	30.8	32.8	34.1	36.8	. .	50.2	53.2	54.8	56.3	58.0	49 13.65	− 0.43	19.28	22 48 53.94	2.47
	* + 35° 17′ . .	†36	. .	. .	. .	13.3	14.5	16.0	17.6	18.7	. .	. .	. .	49 16.02	0.00	19.28	22 48 56.74	2.47
	* + 11° 29′ . .	37	47.6	49.9	51.0	0.8	1.8	3.0	4.3	5.3	15.1	16.2	18.4	53 3.04	+ 0.03	19.28	22 52 43.79	3.18
	Weisse 1108 . .	38	48.0	50.0	51.3	1.0	2.0	3.4	4.6	5.5	15.4	16.4	18.6	54 3.29	0.03	19.28	22 53 44.04	3.18
	Weisse 1204 . .	39	41.0	43.2	44.4	54.1	55.2	56.3	57.6	58.7	8.5	9.5	11.6	57 56.37	+ 0.08	19.28	22 57 37.17	3.58
	Lalande 45323 .	40	47.7	50.4	51.9	3.8	5.0	6.6	8.2	9.5	21.7	23.1	25.7	3 6.69	− 0.01	19.28	23 2 47.40	2.35
	Weisse 142 . .	41	58.0	0.2	1.4	11.0	12.1	13.3	14.4	15.6	25.3	26.4	28.4	9 13.28	+ 0.06	19.28	23 8 54.06	3.45
	Lacaille 9439 . .	42	3.6	5.9	7.1	18.2	19.4	20.8	22.1	23.4	34.4	35.4	37.8	12 20.74	0.11	19.28	23 12 1.57	3.70
	* − 34° 7′ . .	43	46.1	48.4	49.8	1.5	2.7	4.2	5.6	6.8	. .	. .	. .	16 58.14	6.13	19.28	23 16 44.99	3.66
	Weisse 609 . .	44	31.1	33.2	34.4	44.0	45.1	46.2	47.4	48.5	. .	. .	. .	30 41.24	5.03	19.28	23 30 26.99	3.34
	Weisse 678 . .	45	51.2	53.3	54.3	4.1	5.1	6.3	7.5	8.6	18.2	19.2	21.4	34 6.29	0.05	19.28	23 33 47.06	3.33
	Weisse 730 . .	46	39.7	41.7	42.9	52.6	53.6	54.7	55.8	56.9	6.5	7.7	9.6	36 54.70	0.05	19.28	23 36 35.47	3.32
	Weisse 767 . .	47	21.1	23.2	24.2	33.8	34.9	36.1	37.2	38.4	48.0	49.0	51.1	38 36.09	0.05	19.27	23 38 16.87	3.31
	O. Arg. S. 23082 .	48	3.7	5.9	7.1	17.2	18.3	19.7	20.9	21.9	32.1	33.2	35.5	44 19.59	0.09	19.27	23 44 0.41	3.44
	Lalande 46769 .	49	57.2	59.4	0.6	10.6	11.7	13.1	14.3	15.5	25.7	26.7	28.9	46 13.06	0.09	19.27	23 45 53.88	3.42
	O. Arg. S. 23135 .	50	47.3	49.6	50.9	2.1	3.2	4.6	5.8	7.1	18.2	19.5	21.9	50 4.56	+ 0.11	−19.27	23 49 45.40	+ 3.42

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Oct. 5, 21.7	− 19.29	+ 0.008	− 0.09	+ 0.05

5. A larger star following to northward.
6. Faint.
23. Faint.
36. But two.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Oct. 5 Y.	ω Piscium . . .	1	39.0	41.1	42.3	52.0	53.0	54.1	55.3	56.4	6.0	7.1	9.3	52 54.15	+ 0.04	−19.27	23 52 34.92	+ 3.23
	B. A. C. 8360 . .	2	40.0	42.3	43.4	53.4	54.5	55.8	56.9	58.1	8.2	9.3	11.4	57 55.75	+ 0.08	19.27	23 57 36.56	3.30
	Weisse (2) 1312 .	3	. .	. .	. .	21.0	22.1	23.7	25.3	26.6	38.8	40.2	42.7	0 30.05	− 6.31	19.27	0 0 4.47	2.55
	Lalande 26 . .	4	7.3	9.9	11.5	24.0	25.3	26.7	28.2	29.5	42.0	43.3	45.9	4 26.69	0.01	19.27	0 4 7.41	2.56
	Lalande 65 . .	5	. .	. .	. .	35.3	36.5	38.2	39.7	40.9	53.3	54.6	57.3	5 44.48	6.35	19.27	0 5 18.86	2.59
	Lalande 201 . .	6	55.1	57.7	58.9	11.4	12.6	14.2	15.8	17.0	29.4	30.7	33.4	9 14.20	0.01	19.27	0 8 54.92	2.61
	Lalande 335 . .	7	10.3	12.9	14.3	26.3	27.5	29.0	30.5	31.8	44.0	45.4	48.0	13 29.09	0.01	19.27	0 13 9.81	2.66
	Lalande 380 . .	8	17.3	19.7	21.2	33.4	34.6	36.1	37.6	39.0	51.1	52.5	55.1	14 36.15	− 0.01	19.27	0 14 16.87	2.66
		9																
12	δ Aquilæ	10	54.1	56.0	57.0	6.6	7.6	8.9	10.2	11.2	21.0	21.9	24.0	19 8.95	+ 0.05	16.83	19 18 52.17	4.41
	O. Arg. S. 19665 .		1.3	3.7	4.8	15.0	16.1	17.3	18.6	19.6	29.9	31.1	33.2	24 17.33	0.05	16.83	19 24 0.55	5.13
	Weisse 692 . .	11	36.4	38.6	39.7	49.5	50.6	51.8	52.9	53.9	3.8	4.9	7.0	28 51.74	0.05	16.82	19 28 34.97	4.80
	15 Cygni	12	30.3	33.0	34.5	46.5	47.7	49.3	50.7	52.0	4.1	5.4	7.9	39 49.22	0.07	16.82	19 39 32.47	2.33
	O. Arg. S. 20058 .	13	3.1	5.4	6.7	17.4	18.8	20.1	21.5	22.5	33.4	34.6	36.7	47 20.02	0.05	16.82	19 47 3.25	5.32
	Lalande 36039 .	14	58.5	1.2	2.6	14.5	15.6	17.2	18.7	20.1	31.9	33.3	35.9	50 17.23	0.07	16.82	19 50 0.48	2.54
	B. A. C. 6869 . .	15	12.8	17.7	20.2	42.4	44.0	47.6	50.3	52.7	14.9	17.5	22.1	53 47.53	0.13	16.82	19 53 30.84	0.04
	* + 36° 45′ . .	†16	23.9	26.5	27.9	39.9	41.1	42.7	44.1	45.3	57.4	58.8	1.4	56 42.64	0.07	16.82	19 56 25.89	2.81
	* + 36° 38′ . .	17	29.5	32.0	33.4	45.4	46.6	48.1	49.6	50.9	2.9	4.3	6.8	59 48.14	+ 0.07	16.82	19 59 31.39	2.80
	* + 35° 37′ . .	18	. .	. .	. .	0.5	1.9	4.3	23.1	26.2	27.8	29.3	30.8	2 17.99	− 31.92	16.82	20 1 29.25	2.84
	Weisse (2) 206 .	19	19.7	21.8	23.2	33.3	34.3	35.7	36.8	37.9	48.3	49.5	51.7	6 35.65	+ 0.06	16.82	20 6 18.89	3.49
	Weisse (2) 329 .	20	. .	. .	. .	24.7	25.9	27.5	28.8	30.3	42.6	43.9	46.5	9 33.78	− 6.31	16.82	20 9 10.65	2.63
	34 Cygni	†21	54.9	57.7	58.9	11.2	12.4	13.8	15.4	16.7	28.9	30.1	32.9	13 13.90	+ 0.07	16.82	20 12 57.15	+ 2.68
	λ Ursæ Minoris .	†22	. .	. .	. .	. .	. .	. .	4.0	12.5	20.0	28.0	36.0	26 8.10	−29 48.99	16.82	. . . . .	− 104.05
	Weisse 767 . .	23	7.8	9.9	11.0	20.9	21.9	23.1	24.3	25.5	35.4	36.3	38.5	31 23.15	+ 0.05	16.81	20 31 6.39	+ 4.50
	Weisse 779 . .	24	. .	. .	. .	47.2	48.3	49.4	50.7	51.8	1.6	2.7	4.8	31 54.56	− 5.06	16.81	20 31 32.69	4.50
	Lacaille 8574 . .	25	14.9	17.3	18.7	29.9	31.0	32.4	33.7	35.0	46.3	47.4	49.8	41 32.40	+ 0.05	16.81	20 41 15.64	5.02
	B. A. C. 7225 . .	26	. .	. .	. .	56.1	57.3	58.7	59.9	1.1	12.0	13.2	15.5	43 4.22	− 5.57	16.81	20 42 41.84	4.91
	* + 37° 56′ . .	27	2.2	4.7	6.0	18.3	19.7	21.1	22.6	24.0	36.3	37.5	40.0	47 21.13	+ 0.07	16.81	20 47 4.39	2.53
	* − 31° 1′ . .	28	25.0	27.5	28.8	40.1	41.2	42.6	44.0	45.1	56.5	57.6	0.1	51 42.59	0.05	16.81	20 51 25.83	4.05
	B. A. C. 7332 . .	29	40.0	43.4	45.3	1.2	2.7	4.9	6.8	8.4	24.3	26.2	29.6	0 4.80	0.10	16.81	20 59 48.09	1.37
	Lalande 41011 .	30	33.4	35.8	37.1	48.1	49.2	50.6	51.9	53.1	3.9	5.2	7.5	2 50.53	0.04	16.81	21 2 33.76	2.96
	Lacaille 8740 . .	31	29.3	31.5	32.7	43.0	44.1	45.4	46.7	47.8	58.4	59.4	1.6	6 45.45	0.07	16.81	21 6 28.71	4.56
	Weisse 156 . .	32	47.4	49.6	50.5	0.3	1.4	2.7	3.8	4.9	14.6	15.7	17.8	9 2.61	0.06	16.81	21 8 45.86	4.17
	Weisse (2) 310 .	33	4.7	7.0	8.1	18.4	19.3	20.6	21.8	23.0	33.3	34.3	36.5	14 20.64	+ 0.04	16.81	21 14 3.87	3.27
	I Pegasi	34	. .	15.5	16.7	18.0	19.2	20.4	50.1	52.7	53.9	55.2	56.6	16 35.83	− 17.77	16.81	21 16 1.23	3.26
	Lalande 41789 .	35	26.2	28.7	30.0	41.7	43.0	44.6	46.1	47.3	58.9	0.2	2.8	22 44.50	+ 0.03	16.81	21 22 27.72	2.59
	Weisse 628 . .	36	17.7	18.8	20.3	21.6	23.6	. .	24.4	26.9	28.1	29.4	30.8	27 54.16	− 0.29	16.81	21 27 37.06	4.04
	* − 8° 43′ . . .	37	46.9	49.1	50.3	59.9	1.0	2.2	3.5	4.5	14.2	15.2	17.4	28 2.20	+ 0.06	16.81	21 27 45.45	4.04
	* − 8° 24′ . . .	38	10.1	12.3	13.5	23.0	24.0	25.3	26.5	27.6	37.2	38.3	40.4	30 25.29	0.06	16.81	21 30 8.54	4.02
	41 Capricorni . .	39	32.4	34.6	35.8	46.3	47.5	48.7	50.0	51.3	1.8	2.8	5.0	34 48.75	0.07	16.81	21 34 32.01	4.38
	π¹ Cygni	40	20.6	23.7	25.6	40.7	42.3	44.0	46.2	47.7	2.7	4.6	7.8	37 44.17	0.03	16.81	21 37 27.39	+ 1.54
	78 Draconis . . .	41	59.9	6.2	9.9	40.6	43.6	47.5	51.3	54.6	25.5	29.0	35.4	41 47.59	0.04	16.80	21 41 30.83	− 2.25
	* + 37° 49′ . .	42	27.6	30.4	31.7	44.0	45.3	46.8	48.4	49.5	1.7	3.0	5.7	46 46.74	0.03	16.80	21 46 29.97	+ 2.40
	* − 23° 28′ . .	43	55.0	57.4	58.6	9.1	10.2	11.6	12.8	13.9	24.5	25.6	27.9	52 11.51	0.07	16.80	21 51 54.78	4.24
	O. Arg. S. 21904 .	44	30.1	32.4	33.5	43.3	44.3	45.6	46.8	47.9	57.9	58.9	1.3	0 45.64	0.06	16.80	22 0 28.90	4.00
	π¹ Pegasi	45	24.5	26.9	28.4	39.6	40.9	42.4	43.7	45.0	56.3	57.7	0.1	3 42.32	0.03	16.80	22 3 25.55	2.64
	B. A. C. 7753 . .	46	59.0	1.5	2.8	14.5	15.6	17.1	18.6	19.8	31.4	32.7	35.1	7 17.10	0.03	16.80	22 7 0.33	2.57
	Weisse (2) 271 .	47	6.6	9.3	10.6	22.9	24.2	25.6	27.2	28.7	40.8	42.1	44.6	12 25.69	0.03	16.80	22 12 8.92	2.36
	Lalande 43630 .	48	40.8	43.4	44.9	56.8	58.0	59.7	1.2	2.2	14.3	15.7	18.2	14 59.56	+ 0.03	16.80	22 14 42.79	2.44
	* + 36° 36′ . .	49	. .	. .	. .	36.1	37.4	38.6	40.1	41.6	53.5	54.8	57.5	15 44.95	− 6.16	−16.80	22 15 21.99	− 2.44

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h. h.	s.	s.	s.	s.
Oct. 12, 22–2	− 16.80	+ 0.009	. .	+ 0.05
19–21	. .	. .	+ 0.01	
21–23	. .	. .	− 0.04	
23–1	. .	. .	− 0.09	

16. Preceded by smaller star 14ᵐ.
21–22. Unsteady.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	s.	s.	h. m. s.	s.
Oct. 12	Weisse (2) 349 .	1	19.7	22.2	23.8	35.8	36.9	38.5	39.9	41.2	53.3	54.6	57.1	16 38.45	+ 0.03	−16.80	22 16 21.68	+ 2.44
Y.	* + 38° 33′ . .	2	..	..	..	8.2	9.5	11.1	12.5	13.9	..	..	..	20 11.04	0.03	16.80	22 19 54.27	2.35
	* + 38° 33′ . .	3	1.1	3.8	5.2	17.4	18.7	20.4	21.9	23.1	35.4	36.7	39.4	20 20.28	0.03	16.80	22 20 3.51	2.35
	O. Arg. S. 22204 .	4	14.4	16.7	18.0	28.8	30.0	31.3	32.8	34.1	44.9	46.2	48.6	25 31.44	0.08	16.80	22 25 14.72	4.08
	* − 28° 13′ . .	5	26.4	28.6	29.9	..	..	..	..	..	56.8	58.1	0.5	26 43.38	+ 0.08	16.80	22 26 26.66	4.07
	* − 28° 9′ . .	6	..	..	..	40.4	41.6	43.7	1.1	3.8	5.5	6.7	8.2	27 56.38	− 29.42	16.80	22 27 10.16	4.06
	* − 28° 13′ . .	7	..	..	..	17.2	18.4	20.6	38.1	40.7	42.1	43.5	45.0	28 33.20	− 29.44	16.80	22 27 46.96	4.06
	O. Arg. S. 22288 .	8	49.5	51.8	52.9	3.9	4.8	6.3	7.6	8.8	19.9	21.0	23.5	31 6.36	+ 0.08	16.80	22 30 49.64	4.03
	Lalande 44346 .	9	38.0	40.6	42.2	54.4	55.6	57.3	58.7	0.0	12.2	13.3	16.0	33 57.12	0.03	16.80	22 33 40.35	2.48
	η Pegasi	10	51.7	54.0	55.1	6.3	7.3	8.6	10.0	11.2	22.4	23.4	25.9	37 8.72	0.04	16.80	22 36 51.96	2.74
	τ^1 Aquarii . . .	11	46.0	48.2	49.4	59.2	0.3	1.5	2.7	3.9	13.8	14.8	16.9	41 1.52	0.06	16.80	22 40 44.78	3.75
	Lalande 44641 .	12	28.1	30.3	31.5	41.3	42.4	43.6	44.8	45.9	55.9	57.0	59.1	43 43.63	0.06	16.80	22 43 26.89	+ 3.74
	B. A. C. 7990 . .	13	..	..	..	5.5	12.9	21.9	31.5	38.8	..	..	..	48 22.12	0.08	16.79	22 48 5.41	− 10.82
	Lalande 44918 .	14	..	..	..	48.0	49.4	50.8	52.4	53.8	..	..	..	51 50.88	0.03	16.79	22 51 34.12	+ 2.36
	Lalande 44922 .	15	35.8	38.5	40.0	..	..	..	..	..	10.3	11.6	14.3	51 55.08	0.07	16.79	22 51 38.32	2.37
	Lalande 45078 .	16	56.1	58.8	0.3	12.1	13.6	15.0	16.6	17.7	29.9	31.3	33.8	56 15.02	0.07	16.79	22 55 58.26	2.46
	Weisse 1228 . .	17	47.0	49.2	50.3	59.9	0.9	2.1	3.2	4.4	14.0	15.1	17.1	59 2.11	0.05	16.79	22 58 45.37	3.42
	Weisse 9 . . .	18	25.8	28.1	29.3	39.1	40.1	41.3	42.5	43.6	3.6	4.6	6.7	2 41.34	0.07	16.79	23 2 24.62	3.61
	Weisse 95 . . .	19	55.2	57.3	58.5	8.1	9.2	10.4	11.7	12.6	22.2	23.4	25.2	7 10.35	0.06	16.79	23 6 53.62	3.47
	O. Arg. S. 22723 .	20	4.0	6.4	7.6	17.7	18.7	20.0	21.4	22.4	32.7	33.9	35.9	10 20.06	0.09	16.79	23 10 3.36	3.64
	O. Arg. S. 22743 .	21	35.5	37.7	38.9	49.0	50.1	51.3	52.5	53.7	3.9	5.1	7.3	11 51.36	+ 0.09	16.79	23 11 34.66	3.63
	O. Arg. S. 22779 .	22	..	..	..	38.9	40.0	41.4	42.5	43.7	54.5	55.6	57.8	14 46.80	− 5.42	16.79	23 14 24.59	3.67
	Weisse 340 . .	23	43.4	45.6	46.7	56.2	57.3	58.5	59.5	0.5	10.4	11.4	13.5	17 58.45	+ 0.04	16.79	23 17 41.70	3.29
	θ Piscium . . .	24	20.9	23.0	24.1	33.6	34.7	36.0	37.1	38.1	47.8	49.0	50.9	21 35.93	0.04	16.79	23 21 19.18	3.28
	Lalande 46047 .	25	14.6	17.2	18.5	30.6	31.8	33.4	34.9	36.2	48.5	49.8	52.5	24 33.45	0.00	16.79	23 24 16.66	2.47
	Lalande 46188 .	26	12.4	15.0	16.3	28.5	29.8	31.4	32.8	34.2	46.1	47.4	50.0	28 31.26	0.00	16.79	23 28 14.47	2.52
	Weisse (2) 658 .	27	57.6	0.1	1.5	..	..	..	..	..	30.4	31.5	34.0	31 15.85	0.00	16.79	23 30 59.06	2.60
	Weisse (2) 734 .	28	6.8	9.4	10.7	22.6	23.9	25.5	26.9	28.2	40.0	41.5	43.9	34 25.40	0.00	16.79	23 34 8.61	2.57
	* + 36° 11′ . .	29	40.6	43.1	44.5	56.5	57.7	59.3	0.7	2.0	13.8	15.3	17.9	36 59.22	0.00	16.79	23 36 42.43	2.57
	Weisse 809 . .	30	40.9	42.9	44.0	53.6	54.7	55.9	57.0	58.1	7.9	9.0	10.9	40 55.90	0.05	16.79	23 40 39.16	3.34
	108 Aquarii . . .	31	35.7	37.9	39.1	49.4	50.5	51.7	52.9	54.0	4.2	5.3	7.6	44 51.66	+ 0.09	16.79	23 44 34.96	3.44
	* + 38° 30′ . .	32	20.5	23.5	25.0	..	..	..	..	..	54.9	56.3	59.3	47 39.92	− 0.01	16.79	23 47 23.12	2.52
	Lalande 46836 .	33	..	..	..	41.0	42.2	43.9	45.4	46.7	..	..	..	47 43.84	− 0.01	16.79	23 47 27.04	2.52
	Lacaille 9665 . .	34	9.6	12.2	13.5	26.2	27.4	29.0	30.8	32.0	44.5	45.8	48.7	51 29.06	+ 0.14	16.79	23 51 12.41	3.39
	O. Arg. S. 23182 .	35	..	..	..	30.5	31.7	34.0	51.6	54.5	55.6	56.9	58.4	54 46.65	− 29.53	16.78	23 54 0.34	3.40
	Lacaille 9713 . .	36	16.4	18.7	20.4	32.1	33.4	35.0	36.6	37.8	49.6	51.0	53.8	58 34.98	+ 0.13	16.78	23 58 18.33	3.34
	Lacaille 9723 . .	37	55.5	58.0	59.6	11.7	12.9	14.2	15.9	17.2	29.2	30.5	33.2	0 14.35	0.13	16.78	23 59 57.70	3.32
	* + 4° 22′ . .	38	9.1	11.2	12.2	21.8	22.8	24.1	25.3	26.4	35.9	37.0	38.9	4 24.06	0.04	16.78	0 4 7.32	3.22
	Lacaille 5 . . .	39	36.1	38.5	39.7	50.5	51.8	53.1	54.4	55.8	6.5	7.6	9.9	6 53.08	0.10	16.78	0 6 36.40	3.32
	Lacaille 21 . .	40	5.6	8.0	9.5	21.5	22.6	24.0	25.5	26.9	38.7	40.2	42.8	9 24.12	0.13	16.78	0 9 7.47	3.25
	Lalande 335 . .	41	8.1	10.6	11.8	24.0	25.3	26.8	28.1	29.5	41.7	43.1	45.7	13 26.79	0.00	16.78	0 13 10.01	2.66
	Lalande 380 . .	42	14.7	17.5	18.9	31.0	32.2	33.8	35.3	36.7	48.7	50.0	52.6	14 33.76	0.00	16.78	0 14 16.98	2.66
	O. Arg. S. 163 .	43	44.1	46.4	47.7	58.8	59.8	1.2	2.5	3.7	14.9	16.2	18.5	18 1.25	0.11	16.78	0 17 44.58	3.23
	* + 1° 11′ . .	44	46.9	49.0	50.2	59.7	0.7	1.9	3.1	4.2	13.7	14.8	16.9	21 1.92	+ 0.05	16.78	0 20 45.19	3.17
	* + 38° 15′ . .	45	20.0	22.5	24.0	..	..	..	..	..	54.1	55.4	58.0	24 39.00	− 0.01	16.78	0 24 22.21	2.69
	Lalande 713 . .	46	..	..	..	40.0	41.3	42.8	44.2	45.5	..	..	..	24 42.76	0.01	16.78	0 24 25.97	2.69
	Lacaille 126 . .	47	..	..	..	26.8	28.1	29.6	31.2	32.6	45.0	46.3	48.9	27 36.06	6.30	16.78	0 27 12.98	3.05
	* − 39° 1′ . .	48	..	..	..	6.1	7.4	8.8	10.5	11.9	24.5	25.7	28.3	30 15.40	− 6.26	16.78	0 29 52.36	3.04
	Lacaille 164 . .	49	24.5	27.0	28.3	41.8	43.1	44.8	46.5	47.8	0.9	2.4	4.9	33 44.73	+ 0.15	16.78	0 33 28.10	2.94
	Weisse 642 . .	50	..	55.2	56.3	6.4	7.4	8.6	9.8	10.9	21.0	22.0	..	38 8.62	+ 0.08	−16.78	0 37 51.92	+ 3.20

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Oct. 13, 20.7	− 17.56	− 0.033	− 0.09	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.		CORRECTIONS. Inst.	Clock.	Observed R. Ascension.		Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.		m. s.	s.	h. m. s.		s.
Oct. 12	Lalande 1281 . .	1	1.4	3.8	5.1	16.9	18.4	19.7	21.0	22.4	32.1	35.4	37.8	41 19.64		0.00	−16.78	0 41 2.86	+	2.55
Y.	Lalande 1390 . .	2	8.8	11.6	13.0	24.9	26.2	27.6	29.0	30.5	42.5	43.7	46.2	44 27.64		0.00	16.78	0 44 10.86		2.59
	* − 2° 16′ . . .	3	9.8	11.8	12.9	22.4	23.4	24.7	26.0	27.1	36.6	37.7	39.6	48 24.73	+	0.05	16.78	0 48 8.00		3.20
	Lalande 1627 . .	4	47.1	49.7	51.1	3.3	4.5	6.0	7.5	8.6	20.8	22.0	24.6	51 5.93		0.00	16.78	0 50 49.15		2.59
	ε Piscium . . .	5	10.4	12.3	13.5	23.3	24.4	25.5	26.7	27.6	37.4	38.5	40.6	56 25.47		0.04	16.78	0 56 8.73		3.13
	Weisse 15 . . .	6	17.3	19.4	20.5	30.0	31.1	32.4	33.5	34.6	44.3	45.3	47.3	3 32.34	+	0.05	16.77	1 3 15.62	+	3.18
	Polaris	7	. .	. .	. .	45.0	28.0	15.0	4.0	49.0	. .	. .	. .	12 16.20	−	1.64	16.77	. . . .	−	39.70
13	τ Aquilæ . . .	8	45.6	47.9	48.9	58.6	59.6	0.8	1.9	3.0	12.7	13.9	16.0	58 0.81	+	0.04	17.54	. . . .	+	3.97
	* + 38° 5′ . .	9	20.9	23.7	25.1	37.3	38.6	40.0	41.6	42.8	55.2	56.5	59.2	0 40.08	−	0.01	17.54	20 0 22.53		2.74
	* + 37° 44′ . .	10	. .	. .	. .	4.8	6.2	8.8	28.2	31.4	32.8	34.5	36.0	4 22.84		32.89	17.54	20 3 32.41		2.74
	* + 37° 44′ . .	11	. .	. .	. .	49.9	51.0	52.7	54.2	55.5	. .	. .	. .	3 52.66		0.01	17.54	20 3 35.11		2.74
	* + 38° 21′ . .	12	. .	. .	. .	39.6	40.9	43.7	2.9	6.1	7.7	9.3	10.9	7 57.64		33.18	17.54	20 7 6.92		2.64
	Weisse (2) 398 .	13	15.6	18.3	19.8	32.0	33.2	34.8	36.3	37.6	50.0	51.4	54.0	11 34.82		0.01	17.54	20 11 17.27		2.66
	B. A. C. 7001 . .	14	9.2	12.0	13.5	25.6	26.9	28.5	30.0	31.4	43.6	45.1	47.7	14 28.50	−	0.01	17.54	20 14 10.95		2.64
	Lalande 39208 .	15	36.4	38.4	39.5	49.0	50.0	51.3	52.4	53.5	3.2	4.3	6.3	16 51.30	+	0.05	17.55	20 16 33.80		4.21
	B. A. C. 7079, (1st *)	16	58.1	0.3	1.4	. .	. .	. .	. .	. .	25.4	26.5	28.6	25 13.38		0.03	17.55	20 24 55.86		3.75
	B. A. C. 7079, (2d *)	17	. .	. .	. .	12.0	13.0	14.3	15.5	16.6	. .	. .	. .	25 14.28		0.03	17.55	20 24 56.76		3.75
	Weisse 743 . .	18	6.8	8.9	9.9	19.6	20.7	21.9	23.0	24.1	33.6	34.7	36.8	30 21.82		0.05	17.55	20 30 4.32		4.05
	ι Aquarii . . .	19	43.4	45.6	46.7	56.2	57.3	58.4	59.6	0.5	10.3	11.3	13.4	32 58.43		0.05	17.55	20 32 40.93		4.10
	Weisse 1022 . .	20	3.9	6.0	7.0	. .	. .	. .	. .	. .	31.5	32.5	34.7	41 19.27		0.08	17.56	20 41 1.79		4.45
	B. A. C. 7221 . .	†21	29.3	31.5	32.6	. .	. .	. .	. .	. .	56.7	58.0	0.1	43 44.70	+	0.08	17.56	20 43 27.22		4.44
	γ Cygni	22	15.0	17.8	19.3	31.9	33.2	34.9	36.3	37.8	50.4	51.9	54.6	52 34.83	−	0.01	17.57	. . . .		2.37
	B. A. C. 7332 . .	23	40.7	44.3	46.0	2.0	3.7	5.5	7.6	9.4	25.3	27.0	30.5	0 5.64	−	0.04	17.57	20 59 48.03		1.41
	ζ Cygni	†24	21.5	24.0	25.3	26.4	37.5	38.9	40.3	41.4	52.7	53.9	56.2	7.38.92	+	0.01	17.57	. . . .		2.90
16	κ Aquilæ	25	52.1	54.2	55.3	4.9	6.0	7.2	8.3	9.4	19.2	20.3	22.4	30 7.21		0.05	18,26	19 29 49.00		4.74
	e^1 Sagittarii . . .	26	13.7	16.0	17.1	27.2	28.3	29.6	30.8	31.8	41.9	43.0	45.1	33 29.50	+	0.06	18.26	19 33 11.30		4.94
	O. Arg. S. 19857 .	27	54.5	55.6	57.2	58.4	0.4	. .	3.2	5.8	7.0	8.4	9.8	33 32.03	−	0.30	18.26	19 33 13.47		4.94
	15 Cygni	28	31.7	34.4	35.7	47.8	49.0	50.5	51.9	53.3	5.3	6.7	9.2	39 50.50	+	0.06	18.26	19 39 32.30		2.93
	O. Arg. S. 20058 .	29	4.4	6.7	7.9	18.8	20.0	21.4	22.6	23.7	34.5	35.8	38.1	47 21.26		0.06	18.26	19 47 3.06		5.40
	O. Arg. S. 20116 .	30	48.1	50.5	51.7	1.8	2.9	4.3	5.6	6.7	17.2	18.3	20.6	51 4.34	+	0.06	18.25	19 50 46.15		5.20
	O. Arg. S. 20126 .	31	. .	. .	. .	31.4	32.3	33.6	34.9	36.1	46.6	47.8	49.9	51 39.08	−	5.34	18.25	19 51 15.49		5.20
	* − 22° 28′ . .	32	53.4	55.7	57.0	7.2	8.3	9.7	10.9	12.0	22.5	23.6	25.8	54 9.65	+	0.06	18.25	19 53 51.46		5.15
	O. Arg. S. 20200 .	33	41.8	44.0	45.2	55.7	56.7	58.0	59.3	0.4	10.8	12.0	14.3	56 58.02		0.06	18.25	19 56 39.83		5.13
	O. Arg. S. 20276 .	†34	13.2	15.4	16.7	27.0	28.2	29.6	30.7	31.8	42.4	43.5	45.7	2 29.45		0.06	18.25	20 2 11.26		5.07
	Lacaille 8373 . .	35	15.9	18.5	19.9	31.6	32.7	34.1	35.5	36.8	48.5	49.9	52.5	5 34.17		0.06	18.25	20 5 15.98		5.57
	Rumker 8156 . .	36	58.9	1.1	2.3	12.0	13.1	14.5	15.7	16.8	26.9	28.0	30.1	11 14.49	+	0.05	18.25	20 10 56.29		3.71
	Weisse 296 . .	37	. .	. .	. .	40.0	41.1	42.3	43.4	44.6	54.5	55.6	57.7	13 47.40	−	5.08	18.25	20 13 24.07		4.71
	O. Arg. S. 20501 .	38	14.3	16.5	17.7	27.9	28.9	30.2	31.5	32.7	43.0	44.2	46.3	19 30.29	+	0.06	18.25	20 19 12.10	+	4.02
	λ Ursæ Minoris .	39	. .	. .	. .	. .	. .	. .	6.0	9.0	16.0	25.0	33.0	26 5.80	−	29 50.16	18.25	. . . .	−	100.11
	* − 33° 38′ . .	40	55.1	57.7	59.1	10.6	11.7	13.2	14.7	15.8	27.5	28.6	31.2	31 13.20	+	0.06	18.25	20 30 55.01	+	5.30
	O. Arg. S. 20728 .	41	. .	. .	. .	34.2	35.3	36.5	37.7	38.9	49.3	50.4	52.4	33 41.84	−	5.21	18.25	20 33 18.38		4.76
	O. Arg. S. 20805 .	42	36.3	38.6	40.0	50.3	51.5	53.0	54.4	55.7	6.0	7.2	9.5	37 52.95	+	0.06	18.25	20 37 34.76		4.90
	Lalande 40277 .	43	1.6	4.0	5.5	17.2	18.4	19.8	21.3	22.6	34.4	35.8	38.2	44 19.89		0.06	18.25	20 44 1.70		2.70
	Piazzi 401 . . .	44	17.3	19.8	21.5	34.8	36.4	38.2	39.8	41.1	54.5	55.9	58.7	51 38.00		0.06	18.24	20 51 19.82		2.24
	Weisse (2) 154 .	45	34.8	37.5	38.8	50.6	51.9	53.4	54.8	56.1	7.9	9.3	11.7	7 53.35	+	0.06	18.24	21 7 35.17		3.69
	τ Cygni	46	. .	. .	. .	49.0	50.3	51.9	53.2	54.4	6.7	8.3	10.7	9 58.06	−	6.21	18.24	21 9 33.61		2.57
	I Pegasi	47	3.5	5.9	7.0	17.0	18.1	19.5	20.7	21.9	32.0	33.2	35.4	16 19.47	+	0.05	18.24	21 16 1.28		3.32
	β Aquarii . . .	48	41.8	43.9	45.1	54.8	55.8	57.0	58.1	59.2	8.8	9.9	12.1	24 56.95		0.05	18.24	21 24 38.76		4.05
	9 Cephei	†49	. .	. .	. .	39.1	41.2	43.6	46.0	48.5	. .	. .	. .	34 43.68	+	0.09	−18.24	21 34 25.53	+	0.84

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Oct. 16, 21.2	− 18.24	+ 0.011	− 0.01	+ 0.05

21. Cloudy.
24. Cloudy.
34. Saw no other.
49. Cloudy.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Oct. 16	18 Pegasi	1	37.8	39.8	41.0	50.7	51.8	52.9	54.1	55.3	4.8	5.9	8.0	53 52.92	+ 0.05	−18.23	21 53 34.74	+ 3.58
Y.	30 Aquarii . . .	2	25.2	27.3	28.4	38.0	39.1	40.3	41.5	42.5	52.3	53.3	55.3	56 40.29	0.05	18.23	21 56 22.11	3.89
	O. Arg. N. 23362 .	3	20.2	23.4	25.1	40.9	42.7	45.0	46.8	48.4	4.5	6.3	9.4	0 44.79	0.08	18.23	22 0 26.64	1.44
	B. A. C. 7775 . .	4	29.5	34.3	36.9	57.7	59.7	2.6	5.1	7.5	28.2	30.4	34.8	10 2.43	0.09	18.23	22 9 44.29	0.27
	Lalande 43576 .	†5	11.5	14.0	15.3	27.4	28.7	30.1	31.6	32.7	44.9	46.2	48.8	13 30.11	0.06	18.23	22 13 11.94	2.48
	Lalande 43717 .	6	1.8	4.4	5.8	17.6	18.8	20.4	22.0	23.3	35.0	36.2	38.8	17 20.37	0.06	18.23	22 17 2.20	2.53
	η Aquarii . . .	7	40.0	42.1	43.3	52.7	53.8	55.0	56.2	57.3	7.0	8.1	10.1	28 55.05	0.05	18.23	22 28 36.87	3.61
17	* + 36° 41½′ . .	8	47.7	50.3	51.8	3.7	4.9	6.4	8.0	9.3	21.3	22.6	25.2	15 6.47	0.07	18.98	20 14 47.56	2.84
	B. A. C. 7006 . .	9	53.8	56.3	57.7	. .	11.1	12.7	14.0	. .	27.4	28.6	31.3	15 12.54	0.07	18.98	20 14 54.63	2.84
	O. Arg. S. 20501 .	10	14.7	16.9	18.3	28.5	29.5	30.8	32.2	33.3	43.6	44.7	46.9	19 30.85	0.05	18.98	20 19 11.92	4.94
	ε Delphini . . .	11	59.8	1.9	3.1	12.8	13.9	15.2	16.5	17.5	27.3	28.4	30.5	27 15.17	0.05	18.98	20 26 56.24	3.84
	* + 37° 24′ . .	12	25.7	28.4	29.8	41.9	43.2	44.8	46.3	47.5	59.6	1.0	3.6	29 44.71	0.07	18.98	20 29 25.80	2.74
	Weisse(2)1140,(1st*)	13	41.8	44.5	45.9	58.0	59.2	1.0	2.4	3.7	16.0	17.5	20.1	34 0.92	+ 0.07	18.98	20 33 42.01	2.68
	Weisse(2)1140,(2d*)	14	16.2	17.9	19.6	21.0	23.9	. .	39.9	43.2	44.7	46.3	47.9	34 2.06	− 0.37	18.98	20 33 42.71	2.68
	B. A. C. 7175 . .	15	44.8	47.6	49.1	1.4	2.8	4.4	5.8	7.2	19.8	21.1	23.8	38 4.35	+ 0.07	18.98	20 37 45.44	5.53
	Weisse (2) 1407 .	16	2.8	5.6	6.9	19.3	20.6	22.2	23.7	25.1	37.4	38.7	41.1	43 22.13	0.07	18.98	20 43 3.22	2.61
	* + 38° 48′. . .	17	12.0	14.9	16.4	28.6	29.9	31.4	33.0	34.3	46.6	47.9	50.6	44 31.42	0.07	18.98	20 44 12.51	2.61
	* − 19° 29′ . .	18	17.3	19.5	20.7	30.9	32.0	33.2	34.5	35.6	45.7	46.9	49.1	48 33.22	+ 0.05	18.98	20 48 14.29	4.68
	* − 19° 29′ . .	19	. .	. .	. .	8.0	9.1	11.2	27.3	29.8	31.1	32.6	33.9	49 22.88	− 27.54	19.98	20 48 36.36	4.68
	O. Arg. S. 21009 .	20	. .	. .	. .	59.1	0.3	1.6	3.0	4.2	15.0	16.1	18.5	52 7.22	5.55	18.98	20 51 42.69	4.91
	* − 12° 58′ . .	21	. .	. .	. .	22.0	23.0	25.1	40.9	43.3	44.6	45.8	47.0	55 36.46	26.65	18.98	20 54 50.83	4.43
	* + 35° 53′ . .	22	. .	. .	. .	. .	. .	. .	17.8	21.2	22.5	24.2	25.4	2 22.22	41.47	18.98	21 1 21.77	2.70
	* + 35° 53′ . .	23	. .	. .	. .	. .	. .	. .	56.5	59.6	1.0	2.6	4.1	3 0.76	− 41.47	18.98	21 2 0.31	2.70
	* − 12° 27′ . .	24	14.5	16.7	17.7	27.7	28.7	29.9	31.2	32.2	. .	. .	. .	5 24.82	+ 5.15	18.98	21 5 10.99	4.35
	* − 12° 23′ . .	25	. .	. .	. .	. .	. .	. .	. .	. .	47.6	48.7	50.8	5 49.03	− 13.53	18.98	21 5 16.52	4.35
	* − 12° 21′ . .	26	. .	. .	. .	. .	. .	. .	7.3	9.7	10.9	12.4	13.6	6 10.78	− 34.40	18.98	21 5 17.40	4.34
	Lalande 41269 .	27	35.7	38.2	39.5	50.5	51.6	53.0	54.4	55.6	6.6	7.8	10.0	8 52.99	+ 0.06	18.98	21 8 34.07	2.98
	Weisse (2) 327 .	28	44.0	46.4	47.6	57.7	58.7	0.0	1.2	2.3	12.6	13.7	15.8	15 0.00	0.05	18.98	21 14 41.07	3.38
	Lalande 41614 .	29	19.9	22.6	24.0	36.2	37.5	39.0	40.4	41.7	54.1	55.4	58.0	17 38.98	+ 0.07	18.98	21 17 20.07	2.53
	Lalande 41627 .	30	. .	. .	. .	14.8	16.2	18.7	38.4	41.4	42.9	44.5	46.0	18 32.86	− 33.00	18.98	21 17 40.88	2.53
	Lalande 41789 .	31	. .	. .	. .	43.9	45.3	46.9	48.2	49.5	1.2	2.4	5.0	22 52.80	6.00	18.98	21 22 27.82	2.69
	Lalande 41870 .	32	. .	. .	. .	30.8	31.9	33.1	34.3	35.5	45.3	46.4	48.5	25 38.22	5.06	18.98	21 25 14.18	4.23
	* − 36° 29′ . .	33	24.5	25.9	27.8	29.2	31.7	. .	46.4	49.5	50.8	52.5	54.0	29 9.23	− 0.36	18.98	21 28 49.89	4.88
	Lacaille 8854 . .	34	56.7	59.2	0.6	12.5	13.8	15.3	16.6	18.0	30.0	31.4	34.0	29 15.28	+ 0.07	18.98	21 28 56.37	4.88
	* − 36° 26′ . .	35	. .	. .	. .	30.3	31.7	34.0	53.1	56.1	57.5	59.0	0.6	32 47.79	− 32.25	18.98	21 31 56.56	4.85
	ε Pegasi	36	48.3	50.4	51.5	1.2	2.2	3.4	4.6	5.7	15.5	16.6	18.6	38 3.45	+ 0.05	18.99	21 37 44.51	3.58
	* − 1° 9′ . . .	37	. .	. .	. .	46.6	47.7	48.9	50.0	51.1	0.6	1.8	3.8	40 53.81	− 4.93	18.99	21 40 29.89	3.84
	* − 1° 9′ . . .	38	39.7	41.9	43.0	. .	53.7	54.8	56.0	. .	6.7	7.8	9.8	40 54.82	+ 0.05	18.99	21 40 35.88	3.84
	O. Arg. S. 21687 .	39	52.9	1.5	2.9	13.8	14.9	16.4	17.7	18.9	29.7	31.0	33.4	44 16.31	0.06	18.99	21 43 57.38	4.49
	* − 24° 22′ . .	40	0.2	2.5	3.7	14.3	15.5	16.7	17.9	19.1	29.8	31.0	33.0	48 16.71	+ 0 05	18.99	21 47 57.77	4.36
	* − 12° 37′. . .	41	. .	. .	. .	34.2	35.4	36.6	37.8	38.8	48.6	49.6	51.8	53 41.60	− 5.06	18.99	21 53 17.55	4.05
	Weisse 1253 . .	42	19.6	20.7	22.3	23.5	25.8	. .	27.1	29.6	30.8	32.3	33.4	54 56.51	− 0.31	18.99	21 54 37.21	4.04
	Weisse 1255 . .	43	42.0	44.0	45.1	54.9	56.0	57.3	58.4	59.7	9.4	10.5	12.6	54 57.26	+ 0.05	18.99	21 54 38.32	4.04
	* − 9° 50′ . . .	44	56.0	57.3	58.7	0.0	2.2	. .	2.7	5.2	6.6	8.0	9.3	0 32.60	− 0.30	18.99	22 0 13.31	3.94
	Weisse 1375 . . .	45	23.5	25.6	26.8	36.5	37.6	38.7	40.0	40.9	50.9	51.9	53.9	0 38.75	+ 0.05	18.99	22 0 19.81	3.94
	Lacaille 9052 . .	46	. .	. .	. .	10.5	11.7	14.9	34.9	38.0	39.5	41.3	42.9	5 29.14	− 34.31	18.99	22 4 35.84	4.62
	Weisse 155 . .	47	59.9	2.0	3.1	12.7	13.7	14.8	16.0	17.0	26.7	27.9	29.8	9 14.87	+ 0.05	18.99	22 8 55.93	3.67
	O. Arg. S. 22070 .	48	11.7	13.9	15.1	25.8	26.9	28.3	29.5	30.7	41.2	42.3	45.7	12 28.28	0.05	18.99	22 12 9.34	4.18
	O. Arg. S. 22121 .	49	49.9	52.3	53.4	4.7	5.8	7.1	8.4	9.5	20.7	21.9	24.2	17 7.08	+ 0.06	−18.99	22 16 48.15	+ 4.24

5. A faint star to southward.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Oct. 17, 22.8	− 18.99	− 0.004	− 0.01	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Oct. 17	O. Arg. S. 22133 .	1	32.8	35.2	36.6	47.4	48.5	49.9	51.2	52.4	3.5	4.8	7.2	18 49.95	+ 0.06	−18.99	22 18 31.02	+ 4.22
Y.	* − 34° 27′ . .	2	11.5	14.0	15.5	27.0	28.2	29.8	31.0	32.4	44.1	45.5	48.0	21 29.73	0.06	18.99	22 21 10.80	4.30
	* − 34° 32′ . .	3	1.8	4.5	5.6	17.5	18.5	19.9	21.4	22.8	34.5	35.6	38.2	22 20.03	+ 0.06	18.99	22 22 1.10	4.24
	* − 34° 32′. . .	4	. .	. .	. .	21.4	22.6	24.0	25.4	26.7	38.5	39.6	41.9	24 30.01	− 5.97	18.99	22 24 5.05	4.27
	* − 34° 34′. . .	5	17.7	20.0	21.2	33.1	34.2	35.6	37.0	38.5	50.3	51.6	53.9	26 35.74	+ 0.06	18.99	22 26 16.81	4.25
	σ^1 Gruis	6	. .	. .	. .	4.6	5.9	7.6	9.2	10.6	. .	. .	. .	29 7.58	0.07	18.99	22 28 48.66	4.35
	σ^2 Gruis	7	17.4	20.3	21.6	34.5	35.8	37.4	39.0	40.2	53.1	54.7	57.6	29 37.42	+ 0.07	18.99	22 29 18.50	4.35
	O. Arg. S. 22304 .	8	. .	. .	. .	13.5	14.6	16.9	34.2	36.9	38.3	39.7	40.2	32 29.29	− 29.47	18.99	22 31 40.83	4.09
	* − 29° 21′ . .	9	45.6	47.8	49.0	0.2	1.4	2.6	4.0	5.3	16.3	17.5	19.8	36 2.68	+ 0.06	18.99	22 35 43.75	4.07
	* − 14° 17′. . .	10	. .	. .	. .	10.6	11.6	12.7	13.9	15.0	. .	. .	. .	38 12.76	0.05	18.99	22 37 53.82	3.81
	* − 14° 16′ . .	11	. .	. .	. .	39.4	40.5	41.8	42.9	44.0	. .	. .	. .	38 41.72	0.05	18.99	22 38 22.78	3.81
	* − 30° 15′ . .	12	1.6	3.8	5.1	16.2	17.5	18.8	20.2	21.5	32.6	33.7	36.0	42 18.82	0.06	18.99	22 41 59.89	4.05
	Lacaille 9292 . .	13	2.1	4.7	6.0	18.7	20.0	21.5	23.0	24.4	37.0	38.4	40.9	46 21.52	0.07	18.99	22 46 2.60	4.13
	Lalande 44877 .	14	37.9	40.0	41.4	51.5	52.6	53.8	55.1	56.3	6.6	7.7	9.8	50 53.88	0.05	18.99	22 50 34.94	3.85
	Lacaille 9336 . .	15	22.1	24.4	25.4	35.9	37.0	38.4	39.6	40.8	51.0	52.3	54.7	54 38.33	0.05	18.99	22 54 19.39	3.74
	* − 6° 8′ . . .	16	7.9	10.2	11.4	21.0	22.0	23.2	24.5	25.6	35.2	36.3	38.4	57 23.25	0.05	18.99	22 57 4.31	3.55
	Lacaille 9385 . .	17	5.2	8.0	9.2	21.9	23.0	24.8	26.4	27.9	40.5	41.9	44.5	3 24.85	0.07	18.99	23 3 5.93	3.05
	O. Arg. S. 22682 .	18	37.9	40.0	41.4	51.6	52.5	53.7	55.0	56.1	6.4	7.3	9.5	6 53.76	0.05	18.99	23 6 34.82	3.60
	* − 6° 18′ . .	19	2.7	4.9	5.9	15.7	16.7	18.0	19.1	20.1	29.7	30.9	32.9	11 17.87	+ 0.05	18.99	23 10 58.93	3.52
	Weisse 199 . .	20	. .	. .	. .	39.9	40.9	42.9	58.2	0.6	1.9	3.3	4.6	11 54.04	− 26.11	18.99	23 11 8.94	3.52
	Weisse 222 . .	21	. .	. .	. .	28.4	29.5	31.5	46.9	49.5	50.7	51.8	53.0	12 42.66	− 26.12	18.99	23 11 57.55	3.52
	B. A. C. 8150 . .	22	31.3	34.0	35.8	49.1	50.4	52.2	53.5	54.9	8.5	10.1	12.8	16 52.06	+ 0.07	18.99	23 16 33.14	3.81
	* − 22° 28′ . .	23	43.1	45.3	46.6	56.9	58.0	59.3	0.4	1.5	12.1	13.3	15.4	19 59.26	0.05	18.99	23 19 40.32	3.64
	* − 39° 4′ . .	24	35.4	37.8	38.9	51.7	52.8	54.6	55.9	57.1	9.8	11.0	13.7	23 54.43	0.07	18.99	23 23 35.51	3.65
	* − 39° 0′ . .	25	37.8	40.3	41.8	54.2	55.4	57.0	58.7	0.0	12.4	13.8	16.3	27 57.06	0.07	18.99	23 27 38.14	3.67
	Lacaille 9542 . .	26	54.0	56.6	58.0	10.9	12.4	14.0	15.6	16.9	30.1	31.4	34.0	32 13.99	0.07	18.99	23 31 55.07	3.02
	B. A. C. 8241 . .	27	57.0	59.7	1.2	14.7	15.9	17.4	19.1	20.6	33.9	35.1	38.0	35 17.51	0.07	18.99	23 34 58.59	3.57
	* − 1° 26′ . .	28	20.8	23.0	24.1	33.7	34.6	35.8	37.0	38.2	47.8	48.8	50.8	38 35.87	0.05	18.99	23 38 16.93	3.30
	* − 43° 3′. . .	29	52.6	55.7	57.3	10.4	11.6	13.4	15.1	16.3	29.6	31.0	33.9	43 13.35	+ 0.07	18.99	23 42 54.43	3.49
	Lacaille 9609 . .	30	32.2	33.8	35.9	37.4	40.3	. .	2.5	5.8	7.4	9.0	10.7	43 21.50	− 0.41	18.99	23 43 2.10	3.49
	Weisse (2) 994 .	31	11.0	13.7	15.0	27.0	28.3	29.8	31.3	32.6	44.7	46.0	48.4	48 29.80	+ 0.07	18.99	23 48 10.88	2.61
	ω Piscium . . .	32	38.8	40.9	42.0	51.6	52.7	53.9	55.1	56.1	5.9	7.0	9.0	52 53.91	+ 0.05	18.99	23 52 34.97	3.26
	* − 35° 20′ . .	33	. .	. .	. .	30.2	31.3	32.9	34.6	35.7	47.6	48.9	51.4	56 39.08	− 6.03	18.99	23 56 14.06	3.39
	B. A. C. 8375 . .	34	11.9	14.6	15.9	28.7	29.9	31.5	33.0	34.2	47.1	48.4	50.9	0 31.46	+ 0.07	18.99	0 0 12.54	3.33
	Lacaille 9747 . .	35	20.2	22.8	24.1	34.5	35.6	36.9	38.4	39.5	50.4	51.7	53.7	3 37.07	0.06	19.00	0 3 18.13	3.36
	Lacaille 1 . . .	36	1.7	4.6	6.4	19.8	21.0	22.8	24.3	25.8	39.4	40.7	43.6	6 22.74	0.07	19.00	0 6 3.81	3.22
	B. A. C. 41 . .	37	53.6	56.5	58.0	10.8	12.1	13.8	15.1	16.6	29.6	31.2	33.7	9 13.73	+ 0.07	19.00	0 8 54.80	3.23
	σ Andromedæ . .	38	. .	. .	. .	46.2	47.5	48.9	50.2	51.5	3.4	4.7	7.4	11 54.98	− 6.08	19.00	0 11 29.90	2.71
	ι Sculptoris . . .	39	. .	59.8	0.9	11.9	13.2	14.8	16.2	17.4	28.3	29.5	. .	15 14.67	+ 0.06	19.00	0 14 55.73	3.27
	O. Arg. S. 163 .	40	46.3	48.6	49.9	0.9	2.0	3.4	4.6	5.8	17.2	18.4	20.6	18 3.43	0.06	19.00	0 17 44.49	3.26
	* + 1° 11′ . .	41	49.0	51.2	52.3	1.8	2.9	4.1	5.3	6.4	15.9	17.0	19.0	21 4.08	0.05	19.00	0 20 45.13	3.17
	* + 38° 13′ . .	42	. .	. .	. .	38.1	39.6	41.2	42.6	44.1	. .	. .	. .	24 41.12	0.07	19.00	0 24 22.19	2.70
	* + 38° 15′ . .	43	25.5	28.4	29.7	. .	. .	. .	. .	. .	59.9	1.3	3.9	24 44.78	0.07	19.00	0 24 25.85	2.69
	Lalande 762 . .	44	43.5	46.0	47.6	59.7	0.9	2.5	4.0	5.5	17.6	18.9	21.6	26 2.53	0.07	19.00	0 25 43.60	2.70
	* − 39° 1′ . .	45	51.7	54.3	55.8	8.2	9.4	10.9	12.6	13.9	26.4	27.6	30.1	30 10.99	0.07	19.00	0 29 52.06	3.04
	Lacaille 164 . .	46	26.2	29.4	31.0	43.9	45.2	47.0	48.6	50.0	3.1	4.5	7.4	33 46.94	0.07	19.00	0 33 28.01	2.95
	λ^2 Sculptoris . . .	47	51.3	53.8	55.3	7.6	8.9	10.7	12.2	13.5	25.7	27.1	29.8	38 10.54	0.07	19.00	0 37 51.61	2.07
	Lalande 1281 . .	48	3.3	6.2	7.3	19.0	20.2	21.6	23.0	24.5	36.3	37.6	40.0	41 21.73	0.07	19.00	0 41 2.80	2.54
	Lalande 1390 . .	49	11.0	13.8	15.0	27.2	28.3	29.9	31.3	32.6	44.5	45.8	48.5	44 29.81	0.07	19.00	0 44 10.88	2.53
	Weisse (2) 1172 .	50	17.7	20.5	21.6	33.7	34.8	36.4	37.8	39.2	51.3	52.5	54.8	46 36.39	+ 0.07	−19.00	0 46 17.46	+ 2.33

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Oct. 17, 22.8	− 18.99	− 0.004	0.00	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Oct. 17	Lacaille 277 . .	1	10.6	12.8	14.4	26.9	28.2	29.9	31.3	32.5	45.1	46.5	49.0	55 29.75	+ 0.07	−19.00	0 55 10.82	+ 2.80
Y.	O. Arg. S. 613 .	2	10.9	13.2	14.4	25.5	26.6	27.9	29.3	30.6	41.5	42.7	45.2	59 27.98	+ 0.06	19.00	0 59 9.04	2.97
	η Ceti	†3	. .	. .	. .	16.3	17.5	18.6	19.9	21.0	30.8	31.9	34.0	2 23.75	− 5.02	19.00	1 1 59.73	3.13
	χ Piscium . . .	†4	28.1	30.4	31.5	41.7	42.8	44.0	45.3	46.5	56.7	57.9	0.0	4 44.08	+ 0.05	19.00	1 4 25.13	3.11
	88 Piscium . . .	5	57.3	59.5	0.7	10.4	11.4	12.6	13.7	14.8	24.5	25.6	27.7	8 12.56	0.05	19.00	1 7 53.61	+ 3.16
	Polaris	6	. .	. .	. .	46.0	24.0	15.0	2.0	46.0	. .	. .	. .	12 14.60	1.97	19.00	. . . . .	− 39.90
	θ Ceti	†7	. .	34.3	35.4	45.2	46.1	47.3	48.4	49.6	59.5	0.6	. .	17 47.38	+ 0.05	19.01	1 17 28.42	+ 3.10
23	Lalande 38597 .	8	. .	. .	. .	17.4	18.7	21.3	39.0	41.7	43.2	44.7	46.2	3 34.02	− 31.02	23.27	20 2 39.73	3.17
	* − 24° 35′ . .	9	5.6	6.7	7.9	9.1	10.3	. .	40.6	42.8	44.1	45.5	47.0	8 25.96	18.16	23.28	20 7 44.52	5.26
	B. A. C. 6978 . .	10	6.4	8.8	9.9	20.7	21.9	23.3	24.5	25.8	36.6	37.7	40.0	11 23.24	0.14	23.28	20 10 59.82	3.34
	* − 33° 28′. . .	11	51.8	54.2	55.4	6.9	8.1	9.6	10.9	12.1	23.8	25.2	27.5	15 9.59	0.05	23.28	20 14 46.26	5.58
	* − 23° 36′. . .	12	30.6	32.7	33.8	44.4	45.4	46.6	47.9	49.2	59.7	0.9	3.2	17 46.76	0.06	23.28	20 17 23.42	5.14
	π Capricorni . . .	13	55.2	57.5	58.5	8.8	9.8	11.1	12.3	13.4	23.5	24.7	26.9	20 11.06	0.06	23.28	20 19 47.72	4.95
	* − 21° 20′ . .	14	56.3	58.6	59.8	10.1	11.1	12.5	13.8	15.0	25.0	26.4	28.6	26 12.47	0.06	23.28	20 25 49.13	5.04
	* − 0° 3′ . .	15	. .	48.3	49.3	59.0	0.0	1.1	2.3	3.4	13.0	14.2	. .	28 1.18	0.08	23.28	20 27 37.82	4.29
	* + 27° 28′ . .	16	. .	. .	. .	. .	. .	. .	22.2	24.6	25.9	27.5	28.7	31 25.78	37.28	23.28	20 30 25.22	3.33
	* + 27° 28′ . .	17	. .	. .	. .	38.4	39.6	40.9	42.4	43.5	. .	. .	. .	31 40.96	0.13	23.28	20 31 17.55	+ 3.32
	B. A. C. 7169 . .	18	. .	. .	. .	14.0	20.9	27.8	35.0	42.0	. .	. .	. .	35 28.12	1.02	23.28	20 35 3.82	− 7.66
	75 Draconis . . .	19	. .	. .	. .	35.1	41.4	49.0	57.1	3.3	. .	. .	. .	36 49.18	1.01	23.28	20 36 24.89	− 7.66
	O. Arg. S. 20857 .	20	57.2	59.5	0.5	10.9	12.1	13.4	14.6	15.7	26.2	27.3	29.6	41 13.36	0.06	23.28	20 40 50.02	+ 4.93
	* − 17° 47′ . .	21	39.6	41.9	42.9	53.0	54.1	55.5	56.7	57.8	7.8	9.0	11.3	43 55.42	0.06	23.28	20 43 32.08	4.75
	* − 41° 4′ . .	22	42.9	45.5	46.9	. .	1.3	2.9	4.4	. .	18.4	19.9	22.4	47 2.73	0.04	23.28	20 46 39.41	5.63
	* + 36° 44′ . .	†23	. .	. .	. .	56.2	57.4	58.8	0.3	1.7	. .	. .	. .	49 58.88	0.16	23.28	20 49 35.44	2.83
	Weisse (2) 327 .	24	48.4	50.6	51.9	1.9	3.0	4.2	5.5	6.6	16.7	17.9	20.1	15 4.25	0.11	23.29	21 14 40.85	3.48
	* − 23° 51′ . .	25	51.7	53.8	55.0	5.6	6.7	8.0	9.3	10.4	20.8	22.0	24.3	18 7.96	0.06	23.29	21 17 44.61	4.69
	* − 23° 49′ . .	26	. .	. .	. .	. .	. .	. .	18.4	20.7	22.1	23.6	25.0	23 21.96	36.10	23.29	21 22 22.57	4.65
	Lalande 42034 .	27	20.3	22.8	24.0	. .	. .	. .	. .	. .	54.2	55.6	58.2	28 39.18	0.16	23.29	21 28 15.73	2.64
	* + 38° 0′ . . .	28	. .	. .	. .	40.0	41.5	42.9	44.5	45.8	. .	. .	. .	28 42.94	0.16	23.29	21 28 19.49	2.64
	72 Cygni	29	29.5	32.2	33.6	45.9	47.1	48.7	50.2	51.4	3.6	4.8	7.7	29 48.61	0.16	23.29	21 29 25.16	2.64
	Lalande 42269 .	30	37.9	40.7	42.1	54.4	55.6	57.2	58.8	0.0	12.3	13.7	16.4	34 57.19	0.17	23.29	21 34 33.73	2.58
	79 Cygni	31	4.8	7.4	8.7	20.9	22.2	23.8	25.3	26.5	38.8	40.2	42.8	38 23.76	0.16	23.29	21 38 0.31	2.63
	Weisse (2) 933 .	32	. .	. .	. .	49.8	51.3	54.0	12.5	15.0	16.6	18.5	20.0	39 7.21	32.48	23.29	21 38 11.44	2.63
	Lalande 42563 .	33	7.3	9.9	11.2	23.5	24.8	26.3	27.8	29.0	41.2	42.6	45.3	43 26.26	0.16	23.29	21 43 2.81	2.61
	* + 37° 49′ . .	34	34.1	36.8	38.1	50.1	51.5	53.1	54.6	55.8	8.0	9.6	12.2	46 53.08	0.16	23.29	21 46 29.63	2.61
	Weisse 1253 . .	35	45.2	47.4	48.5	. .	. .	. .	. .	. .	12.7	13.8	16.0	55 0.60	0.07	23.29	21 54 37.24	4.12
	Weisse 1255 . .	36	. .	. .	. .	59.5	0.5	1.7	2.8	4.0	. .	. .	. .	55 1.70	0.07	23.29	21 54 38.34	4.12
	α Aquarii . . .	37	11.0	13.0	14.0	23.5	24.6	25.9	27.0	28.1	37.8	38.9	41.0	59 25.89	0.08	23.30	21 59 2.51	3.83
	* + 36° 45′ . .	38	36.3	38.8	40.0	52.1	53.5	55.0	56.5	57.7	9.7	11.1	13.7	3 54.95	0.16	23.30	22 3 31.49	2.63
	B. A. C. 7775 . .	39	35.4	39.6	41.8	2.9	5.2	7.6	10.2	12.6	33.3	35.6	39.9	10 7.65	0.33	23.30	22 9 44.02	0.52
	Lalande 43630 .	40	47.4	49.9	51.2	3.3	4.5	6.0	7.6	8.7	20.7	22.0	24.7	15 6.00	0.16	23.30	22 14 42.54	2.62
	* + 36° 36′ . .	41	. .	. .	. .	42.4	43.7	45.1	46.7	48.0	. .	. .	. .	15 45.18	0.16	23.30	22 15 21.72	2.62
	Weisse (2) 349 .	42	. .	. .	. .	42.0	43.4	44.8	46.2	47.4	. .	. .	. .	16 44.76	0.16	23.30	22 16 21.30	2.62
	* + 38° 33′ . .	43	58.1	0.9	2.2	. .	. .	. .	. .	. .	32.5	34.0	36.5	20 17.37	0.17	23.30	22 19 53.90	2.53
	* + 38° 32′ . .	44	. .	. .	. .	41.8	43.1	46.0	4.8	7.6	9.1	10.9	12.4	20 59.46	32.86	23.30	22 20 3.30	2.53
	α Lacertæ . . .	45	55.2	58.3	59.7	14.7	16.4	18.1	20.0	21.5	36.4	38.1	41.2	26 18.15	0.22	23.30	22 25 54.63	1.89
	Lalande 44195 .	46	16.0	18.7	20.0	31.8	33.0	34.4	35.9	37.0	48.8	50.1	52.7	30 34.40	0.15	23.30	22 30 10.95	2.85
	10 Lacertæ . . .	†47	27.7	30.2	31.5	43.9	45.1	46.8	48.3	49.5	1.7	3.2	5.7	33 46.69	0.17	23.31	22 33 23.21	2.53
	O. Arg. S. 22378 .	48	49.3	50.5	51.8	53.1	54.3	. .	24.0	26.3	27.6	29.0	30.5	38 9.64	17.78	23.31	22 37 28.55	4.00
	O. Arg. S. 22432 .	49	16.8	19.0	20.2	30.4	31.5	32.8	34.0	35.2	45.5	46.7	48.9	42 32.82	− 0.06	−23.31	22 42 9.45	+ 3.96

3. Unsteady.
4. Unsteady.
7. Unsteady.
23. Very faint.
47. Unsteady.

October 23. Image 0.18. Clamp east.
Image 0.00. Clamp west.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Oct. 23, 22.9	− 23.31	− 0.013	− 0.18	− 0.08

DATE.		OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean. m.	Mean. s.	CORRECTIONS. Inst. m. s.	CORRECTIONS. Clock.	Observed R. Ascension. h.	m.	s.	Reduct'n to 1870.0.
				s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m.	s.	m. s.	s.	h.	m.	s.	s.
1868. Oct. 23 Y.		B. A. C. 7986 . .	1	30.9	33.1	34.2	43.8	44.9	46.2	47.3	48.4	58.0	59.0	1.3	48	46.10	− 0.06	−23.31	22	48	22.73	+ 3.07
		Lalande 44922 . .	2	42.4	45.0	46.5	58.7	0.0	1.7	3.2	4.4	16.7	18.2	20.7	52	1.17	0.17	23.31	22	51	38.11	2.52
		Lalande 45078 .	3	2.8	5.5	6.8	18.7	20.0	21.5	22.9	24.2	36.3	37.7	40.3	56	21.52	0.16	23.31	22	55	58.05	2.60
		Lalandə 45323 .	4	51.8	54.4	55.7	8.0	9.4	10.9	12.4	13.7	25.9	27.3	30.0	3	10.86	0.16	23.31	23	2	47.39	2.54
		* − 30° 47′ . .	5	18.5	20.8	22.0	33.3	34.5	35.8	37.4	38.6	49.7	50.8	53.3	6	35.88	0.05	23.31	23	6	12.52	3.54
		* − 30° 38′ . .	6	51.7	54.0	55.1	6.5	7.7	9.0	10.4	11.5	22.7	23.8	26.4	10	8.98	0.05	23.31	23	9	45.62	3.56
		* − 39° 10′ . .	7	43.8	46.5	47.8	. .	. .	. .	. .	. .	18.4	19.8	22.7	13	2.17	0.04	23.31	23	12	38.82	3.60
		* − 39° 14′ . .	8	31.7	34.7	36.0	48.5	49.8	51.5	52.7	54.1	6.5	7.9	10.8	13	51.29	0.04	23.31	23	13	27.94	3.54
		Weisse 340 . .	9	50.0	52.0	53.1	2.8	4.0	5.0	6.1	7.1	16.8	17.9	20.0	18	4.98	− 0.09	23.31	23	17	41.58	3.57
		* − 39° 4′ . . .	10	39.9	42.6	43.9	56.0	57.2	58.8	0.3	1.7	. .	. .	. .	23	52.55	+ 6.37	23.32	23	23	35.60	3.73
		Weisse 539 . .	11	. .	. .	. .	39.2	40.3	41.4	42.6	43.5	. .	. .	. .	28	41.40	− 0.11	23.32	23	28	17.97	3.15
	ι	Andromedæ . .	12	46.9	49.6	51.0	4.0	5.6	7.2	8.8	10.1	23.0	24.7	27.6	32	7.14	0.18	23.32	23	31	43.64	2.40
	ω²	Aquarii . . .	13	2.9	5.1	6.2	16.3	17.3	18.4	19.7	20.7	30.8	31.9	34.0	36	18.48	− 0.06	23.32	23	35	55.10	3.53
		B. A. C. 8269 . .	14	49.9	51.1	52.3	53.5	56.2	. .	56.1	58.3	59.5	0.8	2.0	41	25.97	+ 0.26	23.32	23	41	2.91	3.32
		B. A. C. 8270 . .	15	15.6	17.6	18.8	28.4	29.4	30.6	31.7	32.9	42.4	43.5	45.7	41	30.60	− 0.09	23.32	23	41	7.19	3.33
		* + 34° 10′ . .	16	13.6	16.0	17.4	29.0	30.1	31.6	33.0	34.3	46.0	47.4	49.7	46	31.65	0.15	23.32	23	46	8.18	2.74
		Lalande 46811 .	17	. .	. .	. .	56.5	57.8	59.1	0.5	1.6	13.3	14.7	17.2	47	5.09	6.17	23.32	23	46	35.60	2.73
		Lacaille 9655 . .	18	. .	. .	. .	5.2	6.4	7.7	8.9	10.0	20.8	22.0	24.3	50	13.16	5.56	23.32	23	49	44.28	3.40
		Lacaille 9680 . .	19	6.3	8.7	9.8	20.6	21.7	23.0	24.2	25.4	36.0	37.1	39.5	53	22.94	0.05	23.32	23	52	59.57	3.45
	2	Ceti	20	8.9	11.0	12.2	22.3	23.4	24.7	25.8	27.0	37.3	38.4	40.5	57	24.68	0.06	23.32	23	57	1.30	3.42
	α	Andromedæ . .	21	43.9	46.3	47.4	38.3	39.4	0.8	2.2	3.5	14.2	15.6	18.0	2	0.87	0.19	23.32	0	1	37.36	2.62
		Lalande 26 . .	22	11.6	14.4	15.7	28.2	29.5	31.0	32.6	33.8	46.3	47.5	50.3	4	30.99	0.25	23.33	0	4	7.41	2.63
		Lacaille 5 . . .	23	42.7	45.1	46.3	57.0	58.2	59.6	0.9	2.1	12.9	14.0	16.3	6	59.55	0.00	23.33	0	6	36.22	3.30
		* + 35° 49′ . .	24	. .	. .	. .	37.6	38.9	40.5	42.0	43.2	. .	. .	. .	10	40.44	0.23	23.33	0	10	16.88	2.74
		Lalande 251 . .	25	47.7	50.2	51.5	3.4	4.7	6.2	7.6	8.8	20.9	22.1	24.7	11	6.16	0.23	23.33	0	10	42.60	2.74
	ρ	Andromedæ . .	26	18.8	21.3	22.7	34.8	36.0	37.7	39.2	40.6	52.4	53.8	56.6	14	37.63	0.25	23.33	0	14	14.05	2.71
		Lalande 508 . .	27	48.0	50.6	51.9	3.7	5.0	6.5	7.9	9.3	20.8	22.3	24.9	19	6.45	0.23	23.33	0	18	42.89	2.76
		* + 36° 10′ . .	28	5.0	7.9	8.9	20.9	22.0	23.6	25.0	26.2	38.3	39.7	42.2	22	23.61	0.24	23.33	0	22	0.04	2.76
		Lalande 736 . .	29	56.3	58.9	0.3	12.3	13.6	15.0	16.5	17.7	29.5	30.9	33.5	25	14.95	0.24	23.33	0	24	51.38	2.77
		* + 36° 6′ . .	30	. .	. .	. .	. .	. .	. .	9.3	12.0	13.7	15.1	16.8	29	13.38	41.03	23.33	0	28	9.02	2.75
		Lalande 849 . .	31	14.6	17.3	18.7	30.6	31.9	33.4	35.0	36.2	48.0	49.2	51.9	28	33.35	0.24	23.33	0	28	9.78	2.75
		Lalande 1003 . .	32	38.1	40.6	42.0	53.7	55.0	56.5	58.0	59.3	11.2	12.5	15.0	32	56.54	0.24	23.33	0	32	32.97	2.79
	18	Ceti	33	1.6	3.8	4.8	14.7	15.7	17.0	18.2	19.4	29.2	30.3	32.3	39	17.00	0.04	23.33	0	38	53.63	3.20
	i	Piscium, (1st *) .	34	58.0	0.3	1.5	. .	. .	. .	. .	. .	27.9	29.4	31.6	43	14.78	0.18	23.33	0	42	51.27	2.99
	i	Piscium, (2d *) .	35	. .	. .	. .	12.8	13.8	15.1	16.4	17.5	. .	. .	. .	43	15.12	0.18	23.33	0	42	51.61	2.99
		Weisse (2) 1167 .	36	9.7	12.0	13.2	24.6	25.7	27.0	28.3	29.5	40.6	41.7	44.2	46	26.95	0.20	23.33	0	46	3.42	2.96
	μ	Andromedæ . .	37	34.3	36.8	38.1	50.5	51.7	53.3	54.6	55.9	8.2	9.6	12.2	49	53.20	0.25	23.33	0	49	29.62	2.82
		Lalande 1702 . .	38	12.0	14.6	15.8	27.7	28.9	30.3	31.7	32.9	44.8	46.2	48.6	53	30.32	0.23	23.34	0	53	6.75	2.89
		Weisse 969 . .	39	8.5	10.8	11.8	21.2	22.3	23.5	24.8	25.8	35.4	36.4	38.5	56	23.55	0.09	23.34	0	56	0.12	3.10
		Weisse 1048 . .	40	. .	. .	. .	. .	. .	. .	0.3	2.4	3.7	5.0	6.4	1	3.56	33.11	23.34	1	0	7.11	3.13
	45	Andromedæ . .	41	54.0	56.7	58.0	10.1	11.4	12.8	14.4	15.7	27.8	29.1	31.8	4	12.89	0.24	23.34	1	3	49.31	2.89
	88	Piscium . . .	42	1.8	4.0	5.1	14.7	15.8	17.0	18.2	19.2	28.8	29.9	32.0	8	16.95	0.10	23.34	1	7	53.51	3.15
		Weisse 139 . .	43	41.0	43.1	44.2	54.0	55.0	56.2	57.4	58.5	8.0	9.1	11.2	10	56.15	0.09	23.34	1	10	32.72	3.15
		Lalande 2559 . .	44	21.4	24.0	25.4	37.1	38.4	39.9	41.5	42.8	54.6	55.9	58.3	18	39.94	0.23	23.34	1	18	16.37	2.92
	η	Piscium . . .	45	36.6	38.8	39.9	49.8	50.8	52.0	53.2	54.4	4.4	5.3	7.6	24	52.07	0.13	23.34	1	24	28.60	3.10
24		* + 33° 6′ . .	46	46.9	49.4	50.7	2.0	3.4	4.8	6.2	7.5	18.9	20.0	22.6	2	4.76	0.22	23.77	20	1	40.77	3.20
		O. Arg. S. 20287 .	47	. .	. .	. .	13.4	14.7	17.0	33.1	35.5	36.9	38.4	39.7	4	28.59	28.15	23.77	20	3	36.67	5.32
		* − 13° 57′ . .	48	17.4	19.5	20.6	30.6	31.6	32.6	34.0	35.0	44.9	46.1	48.3	9	32.78	0.04	23.78	20	9	8.96	4.87
		* − 19° 34½′ . .	49	55.7	57.7	59.0	. .	. .	. .	. .	. .	24.9	26.2	28.3	12	11.97	0.02	23.78	20	11	48.17	5.06
		* − 19° 34′ . .	50	. .	. .	. .	9.9	11.0	12.2	13.5	14.6	. .	. .	. .	12	12.24	− 0.02	−23.78	20	11	48.44	+ 5.06

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
Oct. 24, 21.7	− 23.81	− 0.022	− 0.18	− 0.08

DATE.	OBJECT.	•Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Oct. 24	* — 24° 54′	1	26.7	28.8	30.0	40.7	41.8	43.1	44.4	45.7	56.2	57.5	59.9	15 43.16	— 0.01	—23.78	20 15 19.37	+ 5.23
Y.	* — 33° 44′	2	13.4	15.7	17.0	28.4	29.6	31.1	32.8	33.9	45.5	46.8	49.2	18 31.22	+ 0.02	23.78	20 18 7.46	5.58
	π Capricorni	3	. .	. .	. .	. .	. .	. .	42.8	45.0	46.5	47.8	49.1	21 46.24	— 34.81	23.78	. . . .	4.97
	* — 21° 20′	4	56.8	59.0	0.3	10.7	11.7	13.0	14.3	15.4	25.6	26.8	29.0	26 12.96	0.02	23.78	20 25 49.16	5.02
	O. Arg. S. 20697	5	7.9	10.2	11.3	21.7	22.8	24.1	25.4	26.5	36.7	39.0	40.1	32 24.15	0.02	23.78	20 32 0.35	4.98
	O. Arg. S. 20709	6	. .	. .	. .	55.5	56.6	57.9	59.1	0.2	10.6	11.7	13.9	33 3.19	5.37	23.78	20 32 34.04	4.97
	O. Arg. S. 20812	7	15.8	17.9	19.1	29.4	30.5	31.7	33.0	34.2	44.5	45.8	47.9	38 31.80	0.02	23.79	20 38 7.99	4.93
	O. Arg. S. 20857	8	57.9	0.0	1.1	11.5	12.7	14.0	15.3	16.4	26.7	27.9	30.0	41 13.95	— 0.01	23.79	20 40 50.15	4.95
	Lacaille 8596	9	48.0	50.4	51.6	2.6	3.9	5.3	6.6	7.9	18.8	20.3	22.6	44 5.27	+ 0.01	23.79	20 43 41.49	5.20
	B. A. C. 7242	10	2.8	4.9	6.0	15.7	16.8	18.0	19.3	20.3	30.1	31.2	33.4	46 18.05	— 0.06	23.79	20 45 54.20	4.57
	* — 19° 29′	11	44.4	46.5	47.6	57.9	59.0	0.1	1.4	2.5	12.7	13.8	16.0	49 0.17	0.02	23.79	20 48 36.36	4.79
	B. A. C. 7312	12	36.8	39.0	40.1	50.2	51.2	52.5	53.8	54.8	4.9	6.0	8.2	57 52.50	0.03	23.79	20 57 28.68	4.67
	O. Arg. S. 21196	13	31.9	34.1	35.2	45.7	46.9	48.2	49.5	50.6	1.2	2.5	4.7	4 48.23	0.01	23.80	21 4 24.42	4.84
	* + 38° 2′	14	24.8	27.5	28.9	41.0	42.4	43.9	45.4	46.7	58.8	0.2	2.9	7 43.86	— 0.25	23.80	21 7 19.81	2.72
	Lacaille 8764	15	7.5	10.4	11.7	24.6	25.9	27.6	29.1	30.4	43.3	44.7	47.6	11 27.53	+ 0.06	23.81	21 11 3.78	5.41
	* + 38° 21′	16	. .	. .	. .	37.9	39.3	42.0	0.7	3.5	4.9	6.8	8.4	16 55.44	— 32.86	23.81	21 15 58.77	2.68
	Lalande 41614	17	24.8	27.5	28.7	41.0	42.4	43.8	45.3	46.5	. .	. .	. .	17 37.50	+ 6.08	23.81	21 17 19.77	+ 2.68
	Lalande 41627	18	. .	. .	. .	1.7	3.0	4.6	6.2	7.5	19.7	21.0	23.7	18 10.92	— 6.57	23.81	21 17 40.54	2.69
	B. A. C. 7463	19	45.0	47.2	48.4	58.6	59.7	1.0	2.2	3.3	13.5	14.7	16.8	23 0.95	0.02	23.81	21 22 37.12	4.55
	B. A. C. 7465	20	32.9	35.0	36.1	46.3	47.4	48.5	49.8	50.9	0.8	2.0	4.2	26 48.54	0.03	23.81	21 26 24.70	4.44
	ζ Aquarii	21	54.4	56.5	57.6	7.2	8.3	9.5	10.7	11.7	21.4	22.5	24.6	31 9.49	0.05	23.81	. . . .	4.19
	Lalande 42269	22	38.6	41.0	42.5	54.9	56.2	57.7	59.3	0.5	12.8	14.4	17.0	34 57.72	0.25	23.81	21 34 33.66	2.60
	* + 40° 28′	23	. .	. .	. .	. .	. .	. .	9.6	12.5	14.0	16.0	17.6	38 13.94	43.59	23.81	21 37 6.54	2.52
	* + 40° 27′	24	21.2	23.9	25.3	38.0	39.5	41.0	42.6	43.9	56.3	57.7	0.5	37 40.90	0.26	23.81	21 37 16.83	2.52
	* — 19° 0′	25	11.1	13.3	14.4	24.7	25.7	27.0	28.3	29.3	39.4	40.5	42.8	42 26.95	0.02	23.81	21 42 3.12	4.38
	29 Aquarii (1st *)	26	23.2	25.4	26.6	36.6	37.7	39.0	40.2	41.3	51.4	52.5	54.7	55 38.96	— 0.03	23.81	21 55 15.12	4.25
	29 Aquarii (2d *)	27	1.0	2.3	3.6	4.9	7.5	. .	10.4	12.7	14.0	15.5	16.7	55 38.86	+ 0.33	23.81	21 55 15.38	4.25
	B. A. C. 7702	28	49.9	52.4	53.6	5.4	6.7	8.1	9.6	10.9	22.6	23.9	26.5	1 8.15	+ 0.03	23.82	22 0 44.36	4.62
	Lalande 43319	29	33.9	36.5	37.8	49.6	50.8	52.2	53.7	54.8	6.7	8.2	10.7	5 52.26	— 0.23	23.82	22 5 28.21	2.70
	* + 37° 42′	30	33.7	36.2	37.7	49.7	51.0	52.4	53.9	55.3	7.5	8.5	11.5	10 52.49	0.25	23.82	22 10 28.42	2.60
	51 Aquarii	31	25.4	27.6	28.7	38.3	39.4	40.6	41.7	42.8	52.4	53.6	55.6	17 40.55	— 0.06	23.82	22 17 16.67	3.84
	O. Arg. S. 22165	32	57.4	59.8	1.0	11.9	13.0	14.4	15.7	16.9	27.9	29.0	31.3	21 14.39	0.00	23.82	22 20 50.57	4.27
	* — 34° 34′	33	. .	24.9	26.2	37.9	39.2	40.7	42.1	43.3	55.2	56.4	. .	26 40.66	+ 0.03	23.83	22 26 16.86	4.36
	* + 36° 4′	34	17.9	20.4	21.7	33.8	35.0	36.5	37.9	39.2	51.1	52.6	55.0	30 36.46	— 0.24	23.83	22 30 12.39	2.65
	Lalande 44319	35	14.5	17.3	18.5	30.6	31.8	33.3	34.8	36.0	48.1	49.4	52.0	33 33.30	0.24	23.83	22 33 9.23	2.62
	Weisse (2) 764	36	. .	. .	. .	57.0	59.3	0.0	1.5	2.6	. .	. .	. .	34 0.08	0.24	23.83	22 33 36.01	2.62
	* + 36° 42′	37	. .	. .	. .	19.9	21.3	24.0	42.4	44.8	46.4	48.2	49.7	34 37.09	32.13	23.83	22 33 41.13	2.62
	* + 0° 28′	38	47.1	49.0	50.2	59.7	0.8	2.0	3.2	4.3	13.9	15.0	17.1	38 2.03	— 0.08	23.83	22 37 38.12	3.62
	Lacaille 9271	†39	45.7	48.3	49.6	1.1	2.3	3.8	5.2	6.5	17.9	19.2	21.7	43 3.75	+ 0.02	23.83	22 42 39.94	4.17
	Rumker 10753	40	. .	. .	. .	24.0	26.1	28.0	30.5	32.0	. .	. .	. .	50 28.12	— 0.42	23.83	22 50 3.87	1.37
	* + 11° 29′	41	. .	. .	. .	19.6	20.8	22.9	38.0	40.2	41.5	42.8	44.0	53 33.72	26.22	23.84	22 52 43.66	3.34
	Weisse 1108	42	. .	. .	. .	5.6	6.6	7.9	9.2	10.2	19.9	21.1	23.3	54 12.98	5.20	23.84	22 53 43.94	3.34
	Weisse 1220	43	43.8	46.0	47.0	56.6	57.7	58.8	0.0	1.0	10.7	11.9	13.9	58 58.85	0.08	23.84	22 58 34.93	3.44
	58 Pegasi	44	34.0	36.1	37.2	47.0	48.0	49.2	50.4	51.5	1.1	2.2	4.5	3 49.20	0.11	23.84	23 3 25.25	3.36
	θ Piscium	†45	28.0	30.1	31.1	40.7	41.9	43.0	44.2	45.2	54.9	55.9	58.0	21 43.00	0.10	23.85	. . . .	3.36
26	Weisse 145	46	. .	59.3	0.5	10.4	11.6	12.7	14.0	15.0	24.8	26.0	. .	8 12.70	0.02	25.55	20 7 47.13	4.91
	Rumker 8156	47	6.1	8.3	9.4	19.4	20.5	21.7	22.9	24.0	34.0	35.1	37.3	11 21.70	— 0.15	25.55	20 10 56.00	3.89
	* — 21° 15′	48	33.2	35.3	36.4	46.9	48.0	49.3	50.5	51.7	1.9	3.0	5.1	15 49.21	+ 0.01	25.54	20 15 23.68	5.13
	O. Arg. S. 20503	49	26.0	28.5	29.6	40.1	41.2	42.5	43.8	44.9	55.4	56.5	58.7	19 42.47	+ 0.01	25.54	20 19 16.94	5.16
	B. A. C. 7079 (1st *)	50	5.8	7.9	9.0	18.6	19.8	21.1	22.4	23.3	33.0	34.2	36.3	25 21.04	— 0.12	—25.54	20 24 55.38	+ 4.01

39. Saw no other.
45. Ends cloudy.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Oct. 26, 23.6	— 25.42	+ 0.037	— 0.24	— 0.08

DATE.		OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.				s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	h. s.	m. s.	s.	h. m. s.	s.
Oct. 26		B. A. C. 7079 (2d *)	1	45.0	46.3	47.6	48.9	51.4	. .	52.2	54.4	55.7	57.1	58.4	25 21.70	+ 0.23	−25.54	20 24 56.39	+ 4.01
Y.		O. Arg. S. 20607	2	31.9	34.3	35.4	45.9	47.0	48.4	49.6	50.8	1.2	2.4	4.8	26 48.34	+ 0.02	25.54	20 26 22.82	+ 5.14
		B. A. C. 7129	3	11.9	18.3	21.7	53.3	56.8	0.6	4.4	7.5	39.0	42.7	49.2	31 0.49	− 1.00	25.53	20 30 33.96	− 1.29
		B. A. C. 7169	4	. .	. .	. .	16.3	22.6	29.8	37.6	44.0	. .	. .	. .	35 30.06	2.02	25.53	20 35 2.51	7.21
	75	Draconis	5	. .	. .	. .	37.1	44.0	51.0	59.0	5.4	. .	. .	. .	36 51.32	2.02	25.53	20 36 23.77	− 7.20
		O. Arg. S. 20859	6	58.7	0.9	2.1	11.9	13.0	14.3	15.7	16.7	26.9	28.0	30.2	41 14.40	− 0.01	25.53	20 40 48.86	+ 4.81
		Lacaille 8594	7	48.6	51.2	52.3	3.5	4.7	6.1	7.5	8.7	19.7	21.0	23.3	44 6.05	+ 0.05	25.53	20 43 40.57	5.25
	μ	Aquarii	8	44.1	46.3	47.4	57.1	58.1	59.3	0.6	1.6	11.4	12.5	14.6	45 59.36	− 0.04	25.52	20 45 33.80	+ 4.54
		* + 82° 34′	9	. .	. .	. .	43.3	51.7	0.6	9.3	17.5	. .	. .	. .	51 0.48	2.46	25.52	20 50 32.50	− 9.91
	f^1	Cygni	10	. .	. .	. .	. .	45.9	47.7	49.5	. .	5.2	6.8	9.8	55 57.48	− 10.11	25.52	20 55 21.85	+ 2.28
		* − 25° 24′	11	24.1	25.6	26.9	28.3	30.7	. .	37.1	39.6	41.0	42.5	44.0	6 3.98	+ 0.42	25.51	21 5 38.89	4.69
		* − 25° 25′	12	57.4	59.8	0.9	11.8	12.9	14.1	15.4	16.6	27.2	28.4	30.5	6 14.09	+ 0.03	25.51	21 5 48.61	4.69
		* − 25° 28′	13	. .	. .	. .	25.3	26.4	28.8	44.9	47.4	48.8	50.3	51.6	18 40.44	− 28.28	25.50	21 17 46.66	4.79
		* − 23° 48′	14	31.5	33.8	35.0	45.4	46.5	47.6	49.0	50.0	. .	. .	. .	22 42.35	+ 5.46	25.50	21 22 22.31	4.77
		* − 23° 47′	15	. .	. .	. .	56.7	57.8	59.0	0.4	1.4	11.9	13.3	15.5	23 4.50	− 5.42	25.50	21 22 33.58	4.77
		* − 15° 11′	16	11.1	13.3	14.5	24.5	25.5	26.8	27.9	29.0	38.8	40.1	42.1	28 26.69	0.02	25.50	21 28 1.17	4.41
		Weisse 691	17	14.0	16.0	17.2	26.9	28.0	29.1	30.3	31.3	41.0	41.9	44.2	30 29.08	0.06	25.50	21 30 3.52	4.14
	9	Cephei	18	19.6	23.9	26.0	46.2	48.6	51.0	53.6	55.6	15.7	18.2	22.4	34 50.98	− 0.61	25.50	21 34 24.87	0.78
	μ	Cygni, (1st *)	19	0.8	2.2	3.9	5.1	7.9	. .	15.9	18.2	19.6	21.0	22.5	38 41.70	+ 0.17	25.49	21 38 16.38	3.10
	μ	Cygni, (2d *)	20	25.4	27.9	29.1	40.0	41.1	42.5	43.9	45.0	55.8	57.0	59.5	38 42.47	− 0.22	25.49	21 38 16.76	3.10
		B. A. C. 7570	21	. .	. .	. .	. .	. .	. .	29.4	31.7	33.1	34.8	36.0	39 33.00	29.24	25.49	21 38 38.27	3.10
		* + 37° 44′	22	56.5	59.2	0.5	12.7	14.0	15.5	16.8	18.2	30.3	31.8	34.5	44 15.45	0.29	25.49	21 43 49.67	2.65
		* + 38° 24′	23	40.6	43.4	44.6	56.9	58.1	59.8	1.3	2.6	14.8	16.2	18.9	46 59.75	0.30	25.49	21 46 33.96	2.65
		Weisse 1240	24	10.4	12.6	13.7	23.4	24.6	25.8	27.0	28.1	37.9	39.2	41.4	54 25.83	0.03	25.48	21 54 0.32	4.12
		Weisse (2) 1398	25	45.5	48.0	49.3	1.4	2.6	4.0	5.5	6.8	18.8	20.1	22.6	57 4.05	0.28	25.48	21 56 38.29	2.72
		O. Arg. N. 23438	26	0.2	3.5	5.3	21.1	22.6	24.6	26.7	28.3	44.2	45.9	49.5	2 24.72	0.45	25.48	22 1 58.79	1.74
		Lalande 43319	27	35.3	37.8	39.3	50.9	52.2	53.7	55.2	56.5	8.3	9.8	12.4	5 53.76	0.28	25.48	22 5 28.00	2.73
		Lalande 43717	28	9.0	11.6	12.8	24.7	26.0	27.6	29.1	30.2	42.1	43.5	46.0	17 27.51	− 0.28	25.47	22 17 1.76	2.71
		O. Arg. S. 22146	29	6.7	8.8	10.0	20.1	21.2	22.4	23.8	24.7	34.8	36.2	38.2	19 22.45	0.00	25.47	22 18 56.98	4.14
		O. Arg. S. 22199	30	31.2	33.6	34.7	45.3	46.3	47.6	48.9	50.0	0.5	1.7	4.0	24 47.62	+ 0.02	25.46	22 24 22.18	4.18
		O. Arg. S. 22239	31	45.7	47.9	48.9	59.3	0.3	1.5	2.8	3.9	14.0	15.1	17.3	28 1.52	− 0.01	25.46	22 27 36.05	4.07
		O. Arg. S. 22265	32	37.2	39.4	40.5	50.6	51.7	53.0	54.3	55.4	5.6	6.7	8.8	29 53.02	0.01	25.46	22 29 27.55	4.05
	η	Pegasi	33	0.1	2.5	3.7	14.8	15.9	17.2	18.7	19.8	30.8	32.1	34.6	37 17.29	0.23	25.46	22 36 51.60	2.92
	λ	Aquarii	34	56.5	58.7	59.7	9.3	10.4	11.6	12.9	13.9	23.5	24.7	26.8	46 11.64	0.05	25.45	22 45 46.14	3.79
		Weisse 995	35	43.1	45.1	46.3	55.9	56.9	58.2	59.4	0.4	10.0	11.1	13.3	48 58.15	0.05	25.45	22 48 32.65	3.71
		B. A. C. 7993	36	40.1	42.3	43.2	52.9	54.0	55.1	56.2	57.4	7.1	8.2	10.4	50 55.17	0.06	25.45	22 50 29.66	3.69
		Weisse 1087	37	4.1	6.0	7.1	. .	. .	. .	. .	. .	31.1	32.2	34.2	53 19.12	0.06	25.45	22 52 53.61	3.67
		Weisse 1088	38	. .	. .	. .	17.6	18.6	19.8	21.1	22.0	. .	. .	. .	53 19.82	0.06	25.45	22 52 54.31	3.67
		Lalande 45037	39	. .	. .	. .	12.3	13.5	15.0	16.6	17.8	30.1	31.5	34.0	55 21.35	6.60	25.45	22 54 49.30	2.59
		Lalande 45326	40	37.2	39.4	40.5	50.2	51.4	52.7	53.8	54.9	4.7	5.9	8.1	3 52.62	0.02	25.44	23 3 27.16	3.75
		Weisse 111	41	31.0	33.1	34.2	43.7	44.8	45.9	47.2	48.2	57.7	58.9	0.9	7 45.96	0.10	25.44	23 7 20.42	3.45
		O. Arg. S. 22727	42	12.8	14.9	16.1	26.3	27.4	28.7	29.9	31.0	41.3	42.4	44.6	10 28.67	0.00	25.44	23 10 3.23	3.77
		O. Arg. S. 22743	43	44.1	46.3	47.3	57.5	58.6	59.9	1.1	2.3	12.4	13.6	15.8	11 59.90	0.00	25.43	23 11 34.47	3.76
		B. A. C. 8139	44	6.6	9.2	10.5	22.8	24.0	25.5	27.2	28.4	40.7	42.1	44.8	15 25.62	0.29	25.43	23 14 59.90	2.61
		* + 54° 7′	45	. .	. .	. .	. .	. .	31.0	33.0	34.7	51.3	53.1	56.8	21 43.32	12.77	25.43	23 21 5.12	1.74
		* + 54° 7′	46	. .	. .	. .	46.4	48.1	50.3	52.4	54.0	. .	. .	. .	22 50.24	0.48	25.43	23 22 24.33	1.75
		Rumker 11367	47	55.7	57.7	58.7	8.5	9.6	10.8	11.9	13.0	22.6	23.8	26.0	29 10.75	− 0.05	25.42	23 28 45.28	3.52
		Lacaille 9550	48	42.2	44.5	45.6	56.4	57.6	58.9	0.3	1.3	12.1	13.3	15.8	33 58.91	+ 0.03	25.42	23 33 33.52	3.65
		Lacaille 9578	49	20.5	23.3	24.5	37.3	38.7	40.5	42.1	43.3	56.2	57.6	0.2	37 40.38	0.11	25.42	23 37 15.07	3.66
		B. A. C. 8272	50	19.4	20.6	21.9	23.1	25.6	. .	26.0	28.2	29.4	30.8	32.0	41 55.70	+ 0.24	−25.42	23 41 30.52	+ 3.29

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
Oct. 26, 23.6	− 25.42	+ 0.037	− 0.24	− 0.08

DATE.	OBJECT.	Number.	SECONDS OF TRATSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Oct. 26	Lalande 46632 .	1	47.5	49.6	50.6	0.3	1.4	2.6	3.7	4.8	14.4	15.6	17.7	42 2.56	− 0.11	−25.42	23 41 37.03	+ 3.29
Y.	O. Arg. S. 23096 .	2	42.9	45.2	46.2	56.5	57.6	58.7	0.1	1.0	11.2	12.4	14.7	45 58.77	0.01	25.41	23 45 33.35	3.52
	O. Arg. S. 23124 .	3	50.2	52.3	53.5	3.5	4.7	5.9	7.1	8.3	18.4	19.5	21.8	49 5.93	− 0.01	25.41	23 48 40.51	3.49
	O. Arg. S. 23156 .	4	32.7	35.0	36.2	46.7	47.9	49.0	50.2	51.3	1.9	3.1	5.3	51 49.03	+ 0.01	25.41	23 51 23.63	3.49
	* − 26° 21′ . .	5	56.8	59.0	0.2	10.9	12.0	13.5	14.8	15.9	26.7	27.9	30.2	54 13.45	+ 0.03	25.41	23 53 48.07	3.48
	B. A. C. 8360 . .	6	46.4	48.5	49.6	59.7	0.8	2.0	3.3	4.3	14.4	15.6	17.7	58 2.03	− 0.01	25.41	23 57 36.61	3.43
	B. A. C. 8375 . .	7	18.5	21.1	22.6	35.0	36.4	37.9	39.4	40.7	53.2	54.6	57.5	0 37.90	+ 0.10	25.41	0 0 12.59	3.40
	Lalande 17 . .	8	6.7	9.2	10.6	22.6	23.9	25.3	26.7	28.0	39.9	41.2	43.9	4 25.27	− 0.28	25.40	0 3 59.59	2.71
	Lalande 65 . .	9	25.2	28.0	29.2	41.4	42.9	44.4	45.9	47.1	59.5	0.8	3.5	5 44.35	0.30	25.40	0 5 18.65	2.67
	Lalande 201 . .	10	1.5	4.0	5.4	17.7	19.0	20.5	22.1	23.4	35.5	37.0	39.7	9 20.53	0.30	25.40	0 8 54.83	2.68
	σ Andromedæ . .	11	36.7	39.4	40.6	52.5	53.8	55.3	56.8	58.0	9.9	11.4	13.9	11 55.30	0.28	25.40	0 11 29.62	2.74
	Lalaude 383 . .	12	24.8	27.4	28.8	40.4	41.7	43.1	44.6	45.8	57.6	59.0	1.6	14 43.16	0.28	25.40	0 14 17.48	2.78
	* + 37° 51′ . .	13	. .	. .	. .	18.7	20.1	22.8	41.6	44.4	45.7	47.4	58.9	17 36.20	32.67	25.40	0 16 38.13	2.72
	Lalande 656 . .	14	0.9	3.6	4.9	17.0	18.4	19.9	21.3	22.6	34.8	36.2	38.8	23 19.85	0.29	25.39	0 22 54.17	2.74
	* + 38° 7′ . .	15	50.0	52.6	54.0	6.2	7.6	9.1	10.6	12.0	24.0	25.4	28.3	26 9.07	0.29	25.39	0 25 43.39	2.74
	Lalande 884 . .	16	11.5	14.2	15.4	27.6	28.9	30.4	31.8	33.0	45.1	46.7	49.2	29 30.35	− 0.29	25.39	0 29 4.67	2.76
	* − 25° 23′ . .	17	2.8	5.2	6.4	17.0	18.2	19.6	21.0	22.1	32.7	33.8	36.2	32 19.55	+ 0.03	25.39	0 31 54.19	3.20
	* − 25° 55′ . .	18	14.4	16.8	17.9	28.5	29.5	30.9	32.3	33.4	44.1	45.3	47.7	35 30.98	0.03	25.38	0 35 5.63	3.17
	λ² Sculptoris . .	19	57.8	0.5	1.6	14.1	15.4	16.9	18.4	19.9	32.2	33.6	36.4	38 16.98	0.10	25.38	0 37 51.70	3.00
	ι Piscium, (1st *) .	20	36.1	37.5	38.8	40.2	43.0	. .	50.3	52.7	53.9	55.5	56.9	43 16.49	+ 0.18	25.38	0 42 51.29	3.00
	ι Piscium, (2d *) .	21	0.4	2.8	3.9	14.7	16.0	17.3	18.6	19.7	30.4	31.7	34.0	43 17.23	− 0.21	25.38	0 42 51.64	3.00
	Lalande 1492 . .	22	10.1	12.8	14.0	26.4	27.6	29.2	30.9	32.1	44.2	45.6	48.5	47 29.22	0.30	25.38	0 47 3.54	2.80
	Lalande 1627 . .	23	56.1	58.6	0.0	11.9	13.3	14.8	16.3	17.6	29.5	30.8	33.5	51 14.76	0.29	25.37	0 50 49.10	2.85
	Weisse 912 . .	24	18.8	20.8	21.9	31.6	32.7	33.9	35.0	36.1	45.6	46.7	48.8	53 33.81	0.09	25.37	0 53 8.35	3.16
	ε Piscium . . .	25	19.1	21.1	22.0	32.0	33.0	34.2	35.4	36.4	46.3	47.3	49.3	56 34.19	− 0.11	25.37	0 56 8.71	3.10
	O. Arg. S. 613 .	26	17.4	19.4	20.7	31.7	32.9	34.2	35.5	36.7	48.0	49.1	51.4	59 34.27	+ 0.05	25.37	0 59 8.95	2.97
	O. Arg. S. 704 .	†27	10.3	12.5	13.7	24.1	25.4	26.6	28.0	29.2	40.0	41.2	43.3	8 26.75	+ 0.02	25.36	1 8 1.41	2.97
	41 Ceti	28	17.5	19.7	20.7	30.4	31.5	32.8	33.9	35.0	44.6	45.9	47.8	11 32.71	− 0.05	25.36	1 11 7.30	3.10
	Lalande 2559 . .	29	. .	. .	. .	. .	. .	. .	18.5	21.3	22.6	24.2	25.7	19 22.46	40.86	25.36	1 18 16.24	2.98
	96 Piscium . . .	30	23.4	25.3	26.4	36.0	37.1	38.3	39.5	40.5	50.1	51.2	53.4	22 38.29	0.11	25.36	1 22 12.82	3.14
	Weisse 414 . .	31	26.9	28.8	30.0	39.8	41.0	42.2	43.4	44.4	54.0	55.2	57.5	25 42.11	− 0.12	25.36	1 25 16.63	3.14
	* − 29° 27′ . .	32	8.7	10.9	12.1	23.3	24.4	25.7	27.0	28.1	39.2	40.5	42.9	28 25.71	+ 0.05	25.36	1 28 0.40	+ 2.77
	Polaris	33	. .	. .	. .	. .	. .	. .	6.0	28.0	19.0	21.0	6.0	35 16.00	−22 54.01	25.35	. . . .	− 38.99
	B. A. C. 544 . .	34	2.5	5.1	6.4	18.7	19.8	21.4	22.8	24.1	36.0	37.7	40.0	41 21.32	0.29	25.34	1 40 55.69	+ 3.06
	* + 36° 42′ . .	35	. .	. .	. .	2.7	4.2	5.5	7.0	8.3	. .	. .	. .	45 5.54	0.28	25.34	1 44 39.92	3.08
	* + 36° 40′ . .	36	51.5	53.7	55.4	. .	. .	. .	. .	. .	24.9	26.3	28.8	45 10.10	0.28	25.34	1 44 44.48	3.08
	B. A. C. 579 . .	37	17.1	19.6	20.9	33.1	34.4	35.8	37.5	38.6	50.5	51.8	54.3	48 35.78	− 0.28	25.34	1 48 10.16	3.10
	B. A. C. 580 . .	38	3.4	4.8	6.4	8.0	11.0	. .	25.7	28.4	30.0	31.6	33.0	48 48.23	+ 0.15	25.34	1 48 23.04	3.10
	O. Arg. S. 1210 .	39	58.5	0.5	1.8	12.0	13.1	14.3	15.6	16.7	26.8	28.0	30.2	53 14.32	− 0.01	25.34	1 52 48.97	2.85
	O. Arg. S. 1245 .	40	43.2	45.6	46.8	57.5	58.8	0.0	1.3	2.4	13.3	14.5	16.7	56 0.01	+ 0.03	25.33	1 55 34.71	2.68
	58 Andromedæ . .	41	42.3	44.7	46.1	58.5	59.7	1.3	2.7	4.0	15.8	17.5	20.1	1 1.15	− 0.29	25.33	2 0 35.53	3.16
	Lalande 3979 . .	42	. .	. .	. .	56.0	57.1	58.4	59.6	0.6	. .	. .	. .	2 58.36	0.01	25.33	2 2 33.02	2.82
	ξ¹ Ceti	43	13.7	15.9	17.1	26.7	27.8	29.0	30.2	31.4	40.8	41.8	44.3	6 28.98	0.11	25.33	2 6 3.54	3.14
28	B. A. C. 6978 . .	44	7.7	9.9	11.2	22.0	23.2	24.6	26.0	27.2	37.9	39.1	41.5	11 24.57	− 0.24	24.73	20 10 59.60	3.52
	B. A. C. 6987 . .	45	0.4	2.7	3.8	14.0	15.2	16.5	17.7	18.8	29.0	30.3	32.5	13 16.45	+ 0.02	24.73	20 12 51.74	5.13
	* − 13° 38′ . .	46	31.1	33.3	34.2	44.1	45.3	46.5	47.8	49.8	58.6	59.7	1.8	15 46.56	− 0.02	24.73	20 15 21.81	4.89
	Weisse 359 . .	47	. .	. .	. .	21.4	22.6	24.7	39.7	41.7	42.9	44.5	45.9	16 35.42	26.34	24.73	20 15 44.35	4.89
	ε Delphini . . .	48	5.7	7.8	8.9	18.6	19.7	20.9	22.2	23.2	32.5	34.0	36.1	27 20.90	0.13	24.72	20 26 56.05	4.04
	* − 21° 47′ . .	49	. .	. .	. .	15.4	16.4	17.7	18.8	20.0	30.6	31.7	33.9	31 23.06	5.33	24.72	20 30 53.01	5.07
	Weisse 1022 . .	50	11.0	13.2	14.2	24.0	25.2	26.4	27.5	28.7	38.6	39.8	41.8	41 26.40	− 0.02	−24.72	20 41 1.66	+ 4.70

27. Faint.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Oct. 28, 23.6	− 24.67	+ 0.017	− 0.30	− 0.08

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Oct. 28	Weisse 1082 . .	1	12.1	14.4	15.4	25.0	26.1	27.3	28.6	29.6	39.2	40.3	42.5	43 27.32	− 0.04	−24.72	20 43 2.56	+ 4.53
Y.	* + 37° 56′ . .	2	. .	. .	. .	. .	. .	. .	6.6	9.3	10.8	12.8	14.1	47 10.72	− 42.13	24.72	20 46 3.87	2.90
	Lacaille 8657 . .	3	45.2	48.0	49.4	2.9	4.1	. .	7.5	8.7	22.3	23.9	26.6	56 5.86	+ 0.18	24.71	20 55 41.33	5.75
	Lacaille 8686 . .	4	13.2	15.9	17.3	29.9	31.2	32.7	34.3	35.7	48.0	49.3	52.2	59 32.70	+ 0.14	24.71	20 59 8.13	5.52
	Lalande 41011 .	5	41.4	43.7	44.9	55.8	57.0	58.4	59.8	0.9	11.6	12.9	15.5	2 58.35	− 0.25	24.71	21 2 33.39	3.27
	B. A. C. 7373 . .	6	16.4	18.9	20.3	32.1	33.5	34.9	36.5	37.7	49.5	50.9	53.4	8 34.92	0.32	24.71	21 8 9.89	2.91
	τ Cygni	7	39.4	42.0	43.3	. .	. .	. .	. .	. .	13.8	15.5	18.1	9 58.68	− 0.34	24.71	21 9 33.63	2.54
	Lacaille 8804 . .	8	19.2	21.7	23.0	34.8	36.0	37.4	38.8	40.0	51.9	53.1	55.7	17 37.42	+ 0.12	24.71	21 17 12.83	5.17
	* + 36° 7′ . . .	9	34.3	36.0	37.5	39.0	42.0	. .	. .	58.9	0.2	2.0	3.6	19 14.83	4.25	24.71	21 18 54.37	2.87
	* + 36° 6′ . . .	10	31.9	34.3	35.7	47.6	48.9	50.4	51.8	53.1	. .	. .	. .	19 44.21	5.84	24.71	21 19 25.34	2.87
	O. Arg. S. 21438 .	11	7.4	9.5	10.6	20.9	21.9	23.1	24.5	25.6	36.0	36.9	39.4	24 23.25	+ 0.02	24.71	21 23 58.56	4.60
	Weisse 662 . .	12	47.8	49.9	50.9	0.7	1.8	2.9	4.2	5.3	15.0	16.2	18.4	29 3.01	− 0.03	24.71	21 28 38.27	4.31
	Weisse 685 . .	13	1.3	3.5	4.5	14.3	15.2	16.5	17.8	18.8	28.6	29.7	31.9	30 16.55	0.03	24.71	21 29 51.81	4.31
	42 Capricorni . .	14	33.6	35.6	36.3	46.6	47.8	49.0	50.2	51.3	1.2	2.4	4.6	34 49.01	0.01	24.70	21 34 24.30	4.38
	* + 40° 27′ . .	15	. .	. .	. .	28.5	30.0	31.4	32.9	34.4	. .	. .	. .	37 31.44	0.36	24.70	21 37 6.38	2.60
	* + 40° 26′ . .	16	. .	. .	. .	38.8	40.2	41.8	43.3	44.6	. .	. .	. .	37 41.74	0.36	24.70	21 37 16.68	2.60
	* − 11° 26′ . .	17	. .	. .	. .	46.2	47.3	48.6	49.8	50.9	. .	. .	. .	39 48.56	0.02	24.70	21 39 23.84	4.27
	* + 37° 44′ . .	18	55.8	58.5	59.8	11.8	13.2	14.7	16.3	17.5	29.8	31.3	33.8	44 14.77	0.34	24.70	21 43 49.73	2.75
	* + 38° 20′ . .	19	39.8	42.6	44.0	56.1	57.5	59.0	0.5	1.8	14.1	15.6	18.1	46 59.01	0.34	24.70	21 46 33.97	2.69
	* + 38° 18′ . .	20	. .	. .	. .	27.6	29.0	31.7	50.4	53.0	54.7	56.6	58.0	47 45.12	32.92	24.70	21 46 47.50	2.69
	α Aquarii . . .	21	12.3	14.3	15.4	25.0	26.1	27.3	28.5	29.5	39.0	40.1	42.4	59 27.26	0.08	24.70	21 59 2.48	+ 3.90
	B. A. C. 7735 . .	†22	. .	. .	. .	4.3	11.8	20.4	29.7	37.0	. .	. .	. .	3 20.64	2.79	24.70	22 2 53.15	− 9.13
	Lalande 43320 .	23	. .	. .	. .	52.1	53.4	55.0	56.5	57.6	. .	. .	. .	5 54.92	0.33	24.70	22 5 29.89	+ 2.73
	* + 37° 42′ . .	24	34.4	36.8	38.4	50.6	51.8	53.4	54.9	56.3	8.5	9.8	12.4	10 53.39	− 0.34	24.69	22 10 28.36	2.67
	* − 35° 11′ . .	25	27.6	30.1	31.5	43.4	44.4	45.8	47.4	48.5	0.4	1.6	4.2	14 45.90	+ 0.12	24.69	22 14 21.33	4.56
	* − 35° 9′ . . .	26	34.4	37.3	38.5	50.1	51.4	53.0	54.5	55.6	7.5	8.9	11.3	14 52.95	+ 0.12	24.69	22 14 28.38	4.56
	Lalande 43719 .	27	52.7	55.0	55.9	5.7	6.9	8.1	9.2	10.3	20.3	21.6	23.6	18 8.12	− 0.01	24.69	22 17 43.42	1.06
	Weisse 363 . .	28	. .	. .	. .	43.5	44.7	46.8	1.8	4.0	5.4	7.0	8.2	19 57.68	26.34	24.69	22 18 6.65	4.14
	Lalande 43871 .	29	26.5	29.1	30.4	42.9	44.2	45.8	47.3	48.6	1.0	2.4	5.0	21 45.75	0.35	24.69	22 21 20.71	2.60
	58 Aquarii . . .	30	53.2	55.3	56.3	6.1	7.3	8.4	9.5	10.7	20.5	21.6	23.8	25 8.43	− 0.02	24.69	22 24 43.72	3.97
	* − 31° 2′ . .	31	32.3	34.7	35.8	47.1	48.3	49.7	51.1	52.3	3.5	4.9	7.3	28 49.73	+ 0.09	24.69	22 28 25.13	4.32
	* − 35° 24′ . .	32	2.6	5.0	6.4	18.2	19.4	20.9	22.3	23.7	35.6	37.0	39.5	31 20.96	+ 0.12	24.69	22 30 56.39	4.39
	* − 29° 21′ . .	33	51.4	53.9	55.0	6.0	7.1	8.4	9.7	10.8	22.1	23.2	25.8	36 8.49	− 0.08	24.69	22 35 43.72	4.22
	* + 57° 49′ . .	34	25.2	29.4	31.5	. .	. .	. .	. .	. .	15.6	17.7	21.7	40 53.52	0.64	24.69	22 40 28.19	1.33
	* + 57° 49′ . .	35	. .	. .	. .	49.5	51.4	53.5	55.7	57.5	. .	. .	. .	40 53.52	0.64	24.69	22 40 28.19	+ 1.34
	B. A. C. 7990 . .	36	. .	. .	. .	13.4	21.6	30.9	40.3	48.4	. .	. .	. .	48 30.92	2.41	24.68	22 48 3.83	− 8.94
	Weisse 1082 . .	37	47.7	49.8	50.9	0.6	1.7	2.8	4.0	5.0	14.9	16.0	18.1	53 2.86	0.14	24.68	22 52 38.04	+ 3.40
	* − 7° 47′ . .	38	55.7	57.8	58.8	8.7	9.7	10.8	12.0	13.1	22.8	23.8	26.0	54 10.84	0.04	24.68	22 53 46.12	3.73
	Weisse 1136 . .	39	6.3	8.3	9.4	19.0	20.1	21.3	22.5	23.5	33.1	34.3	36.5	55 21.30	0.04	24.68	22 54 56.58	3.73
	Weisse 1228 . .	40	54.9	57.2	58.2	7.7	8.7	9.8	11.0	12.2	21.7	22.8	24.9	59 9.92	− 0.09	24.68	22 58 45.15	3.56
	Lacaille 9385 . .	41	10.7	13.5	14.7	27.7	29.0	30.4	32.0	33.5	46.2	47.4	50.2	3 30.48	+ 0.16	24.68	23 3 5.96	4.10
	Weisse 142 . .	42	3.6	5.8	6.9	16.4	17.5	18.6	19.9	21.0	30.5	31.9	33.9	9 18.73	− 0.05	24.68	23 8 54.00	3.63
	Weisse 188 . .	43	2.2	4.4	5.4	15.3	16.2	17.6	18.8	19.8	29.7	30.8	32.9	11 17.55	− 0.01	24.68	23 10 52.86	3.71
	* − 19° 17′ . .	44	10.6	12.7	13.6	. .	. .	. .	. .	. .	38.8	40.0	42.1	14 26.30	+ 0.02	24.68	23 14 1.64	3.75
	Lalande 45704 .	45	. .	. .	. .	24.6	25.7	26.8	28.0	29.1	. .	. .	. .	14 26.84	+ 0.02	24.68	23 14 2.18	3.75
	Weisse 342 . .	46	57.6	59.8	0.9	10.8	11.9	13.2	14.5	15.6	25.3	26.4	28.6	18 13.15	− 0.15	24.68	23 17 48.32	3.27
	Lacaille 9482 . .	47	42.4	44.7	45.8	56.8	57.9	59.4	0.7	1.9	12.8	14.0	16.4	20 59.35	+ 0.07	24.67	23 20 34.75	3.79
	Lalande 46047 .	48	22.3	24.9	26.3	38.4	39.7	41.2	42.7	44.0	56.1	57.6	0.2	24 41.22	− 0.34	24.67	23 24 16.21	2.64
	B. A. C. 8214 . .	49	55.6	57.5	58.8	8.5	9.7	10.7	11.9	12.9	22.7	23.9	26.1	29 10.75	− 0.04	24.67	23 28 46.04	3.54
	B. A. C. 8225 . .	50	22.9	25.0	26.2	36.1	37.2	38.4	39.6	40.8	50.8	52.0	54.1	31 38.46	0.00	−24.67	23 31 13.79	− 3.60

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Oct. 28, 23.6	− 24.67	+ 0.017	− 0.30	− 0.08

22. First of two.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Oct. 28	Lacaille 9554 . .	1	. .	25.8	27.2	28.5	30.1	31.4	6.7	9.4	11.0	12.6	14.3	34 49.70	− 20.92	−24.67	23 34 4.11	+ 3.72
Y.	Lalande 46496 .	2	25.2	27.2	28.4	38.0	39.1	40.3	41.4	42.4	52.2	53.3	55.5	37 40.27	− 0.11	24.67	23 37 15.49	3.33
	* − 32° 8′ . .	3	49.8	52.4	53.4	4.9	6.1	7.5	8.9	10.1	21.3	22.7	25.3	43 7.49	+ 0.09	24.67	23 42 42.91	3.61
	* + 34° 11′ . .	4	14.8	17.3	18.6	30.3	31.5	32.9	34.3	35.6	47.3	48.6	51.2	46 32.95	− 0.30	24.67	23 46 7.98	2.78
	* + 34° 15′ . .	†5	. .	. .	. .	14.5	16.0	18.4	36.2	38.9	40.4	42.2	43.6	47 31.28	31.24	24.67	23 46 35.37	2.78
	Weisse 1040 . .	6	31.7	33.8	35.0	44.9	46.0	47.1	48.2	49.3	59.0	0.2	2.3	51 47.05	0.13	24.67	23 51 22.25	3.24
	O. Arg. S. 23182 .	7	. .	. .	. .	22.2	23.5	24.7	26.1	27.4	38.3	39.6	41.7	54 30.44	− 5.60	24.67	23 54 0.17	3.50
	* − 35° 20′ . .	8	. .	22.8	24.0	35.9	37.1	38.5	39.9	41.1	53.1	54.5	. .	56 38.54	+ 0.12	24.67	23 56 13.99	3.48
	86 Pegasi	9	7.9	9.9	11.0	20.8	21.9	23.2	24.4	25.5	35.3	36.4	38.6	59 23.17	− 0.14	24.66	23 58 58.37	3.20
	Weisse 1251 . .	10	51.5	53.5	54.6	4.2	5.2	6.5	7.6	8.6	18.3	19.5	21.5	2 6.45	− 0.11	24.66	0 1 41.68	3.27
	O. Arg. S. 47 . .	11	37.6	39.9	41.0	51.0	52.1	53.4	54.6	55.8	5.7	6.9	9.0	5 53.36	+ 0.01	24.66	0 5 28.71	3.40
	B. A. C. 37 . .	12	26.8	29.5	30.7	42.5	43.8	45.3	46.7	47.8	59.9	1.2	3.9	8 45.28	+ 0.12	24.66	0 8 20.74	3.35
	Lalande 383 . .	13	. .	26.8	28.0	39.5	40.8	42.5	43.9	45.2	56.8	58.2	. .	14 42.41	− 0.31	24.66	0 14 17.44	2.80
	Lalande 508 . .	14	49.1	51.7	53.1	5.0	6.1	7.6	9.1	10.4	12.3	13.5	16.0	19 7.63	0.32	24.66	0 18 42.65	2.79
	Lalande 656 . .	15	0.3	3.0	4.1	16.3	17.6	19.2	20.6	22.0	34.0	35.4	38.1	23 19.15	0.34	24.66	0 22 54.15	2.75
	Weisse 421 . .	16	7.1	9.2	10.2	20.0	21.1	22.3	23.5	24.6	34.3	35.4	37.7	26 22.32	0.03	24.66	0 25 57.63	3.27
	Rumker 138 . .	17	37.3	39.7	41.1	52.9	54.1	55.6	57.1	58.3	10.0	11.2	13.9	28 55.56	0.31	24.66	0 28 30.59	2.83
	Lalande 963 . .	18	22.0	24.4	25.8	37.7	39.0	40.4	42.0	43.3	55.3	56.6	59.4	31 40.54	− 0.32	24.65	0 31 15.57	2.81
	* − 25° 55′ . .	19	13.7	16.0	17.0	27.7	28.8	30.2	31.5	32.8	43.5	44.7	47.2	35 30.28	+ 0.06	24.65	0 35 5.69	3.18
	18 Ceti	20	2.9	5.2	6.4	16.3	17.2	. .	19.7	20.7	30.6	31.7	33.9	39 18.46	− 0.01	24.65	0 38 53.80	3.21
	(* 138) Washington	21	8.8	10.7	11.7	21.6	22.5	23.6	24.8	25.8	35.6	36.7	38.7	43 23.68	0.10	24.65	0 42 58.93	3.19
	Lalande 1443 . .	22	47.3	50.0	51.4	3.6	4.9	6.4	7.9	9.3	21.2	22.7	25.4	46 6.37	0.34	24.65	0 45 41.38	2.82
	* − 2° 16′ . .	23	. .	. .	. .	44.5	45.5	47.5	2.4	4.3	5.6	6.9	8.2	48 58.11	25.67	24.65	0 48 7.79	3.19
	Lalande 1629 . .	24	. .	. .	. .	16.1	17.3	18.9	20.5	21.7	34.4	35.8	38.4	51 25.39	6.73	24.65	0 50 54.01	2.81
	O. Arg. S. 569 .	25	. .	. .	. .	33.6	34.7	36.0	37.3	38.4	49.3	50.5	52.7	54 41.56	5.50	24.65	0 54 11.41	3.04
	Weisse 979 . .	26	50.5	52.5	53.5	3.4	4.4	5.5	6.6	7.6	17.3	18.3	20.4	57 5.45	0.09	24.65	0 56 40.71	3.16
	Weisse 1028 . .	27	30.1	32.1	33.4	42.8	43.8	45.0	46.3	47.3	56.8	58.0	0.1	59 45.06	0.09	24.65	0 59 20.32	3.16
	Lalande 2027 . .	28	. .	. .	. .	46.1	47.5	49.2	50.7	51.8	. .	. .	. .	2 49.06	0.34	24.65	1 2 24.07	2.88
	Rumker, N. F., 558	29	7.4	9.4	10.6	20.1	21.2	22.4	23.6	24.7	34.2	35.4	37.6	8 22.42	0.10	24.64	1 7 57.68	+ 3.14
	Polaris	30	. .	. .	. .	4.0	47.0	36.0	27.0	9.0	. .	. .	. .	12 36.60	15.69	24.64	. . . .	− 38.58
	(* 61) Washington	31	13.7	15.7	16.9	26.7	27.7	29.0	30.2	31.5	40.8	41.9	44.2	21 28.94	− 0.12	24.64	1 21 4.18	+ 3.12
	η Piscium . . .	32	37.7	40.0	41.1	51.0	52.1	53.4	54.7	55.7	. .	. .	. .	24 48.21	+ 4.98	24.64	1 24 28.55	3.15
	* + 24° 7′ . .	33	3.7	6.1	7.3	17.8	18.8	20.2	21.5	22.7	33.1	34.3	36.7	29 20.20	0.04	24.64	1 28 55.60	2.86
	Lalande 3025 . .	34	30.2	32.8	34.3	46.5	47.8	49.3	50.7	52.1	. .	. .	. .	32 42.96	6.00	24.64	1 32 24.32	3.00
	B. A. C. 563 . .	35	15.0	17.4	18.7	31.2	32.6	34.1	35.7	37.2	49.4	50.8	53.6	44 34.15	0.14	24.63	1 44 9.66	2.39
	O. Arg. S. 1146 .	36	55.8	57.9	59.2	9.8	10.9	12.4	13.7	14.8	25.6	26.8	29.1	47 12.36	0.06	24.63	1 46 47.79	2.72
	Lacaille 569 . .	37	21.2	23.7	24.9	37.1	38.5	39.9	41.2	42.5	54.6	56.0	58.8	50 39.85	0.13	24.63	1 50 15.35	2.42
	O. Arg. S. 1210 .	38	57.7	59.9	1.2	. .	12.3	13.6	14.9	. .	26.0	27.2	29.5	53 13.59	+ 0.01	24.63	1 52 48.97	2.84
	O. Arg. S. 1259 .	39	. .	. .	. .	10.9	12.1	13.4	14.7	15.8	26.4	27.6	29.9	57 18.85	− 5.42	24.63	1 56 48.80	2.71
	58 Andromedæ . .	40	41.6	44.3	45.7	57.7	59.2	0.7	2.2	3.4	15.4	16.8	19.4	1 0.58	0.33	24.63	2 0 35.62	3.48
	Weisse 72 . . .	41	35.5	37.6	38.6	48.3	49.3	50.4	51.5	52.7	2.3	3.3	5.4	6 50.45	0.10	24.63	2 6 25.72	3.10
	* − 16° 36′ . .	42	22.0	24.1	25.2	35.2	36.4	37.6	38.8	39.9	49.9	51.1	53.4	9 37.60	0.00	24.63	2 9 12.97	2.82
	i Persei	43	14.4	18.1	20.0	36.7	38.8	40.7	42.9	44.7	1.3	3.4	7.1	13 40.74	− 0.57	24.63	2 13 15.54	3.01
	O. Arg. S. 1522 .	44	56.2	58.6	59.8	10.1	11.2	12.4	13.5	14.6	24.8	26.0	28.2	17 12.31	+ 0.01	24.62	2 16 47.70	2.75
	O. Arg. S. 1554 .	45	3.5	5.7	6.8	17.5	18.6	20.0	21.3	22.4	32.9	34.2	36.4	20 19.94	+ 0.05	24.62	2 19 55.37	2.61
	Weisse 379 . .	46	49.0	51.1	52.2	2.0	3.1	4.4	5.5	6.5	16.4	17.5	19.8	24 4.32	− 0.15	24.62	2 23 39.55	3.18
	Weisse 443 (1st*) .	†47	45.3	47.4	48.6	. .	. .	. .	. .	. .	12.2	13.4	15.5	28 0.40	0.05	24.62	2 27 35.73	2.96
	Weisse 443 (2d*) .	48	. .	. .	. .	58.2	59.2	0.4	1.6	2.6	. .	. .	. .	28 0.40	− 0.05	24.62	2 27 35.73	2.96
	* − 34° 15′ . .	49	30.9	33.6	35.0	46.5	47.8	49.4	50.7	51.9	3.5	4.8	7.5	32 49.24	+ 0.11	24.62	2 32 24.73	2.25
	γ Ceti	50	40.6	42.7	43.8	53.3	54.4	55.7	56.9	57.9	7.4	8.6	10.6	36 55.63	− 0.09	−24.62	2 36 30.92	+ 3.08

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
Oct. 28, 23.6	− 24.67	+ 0.017	− 0.30	− 0.08

5. Preceded by a small star to northward.
47. Northward.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 3	π Capricorni . .	1	54.5	56.6	57.8	7.9	9.0	10.3	11.5	12.6	22.7	23.8	26.0	20 10.25	+ 0.11	−22.83	20 19 47.53	+ 5.1
Y.	B. A. C. 7124 . .	2	8.3	15.0	18.4	49.7	53.0	56.7	0.3	3.8	35.5	39.0	45.6	30 56.85	− 0.43	22.83	20 30 33.59	− 1.0
	* + 38° 5′ . .	3	. .	. .	. .	53.5	54.7	57.5	16.8	20.0	21.5	23.1	24.7	34 11.48	− 33.12	22.83	20 33 15.53	+ 2.75
	O. Arg. S. 20828 .	4	52.5	54.8	55.9	6.9	8.1	9.6	10.8	11.9	22.8	23.9	26.4	39 9.42	+ 0.16	22.83	20 38 46.75	5.10
	O. Arg. S. 20833 .	5	34.1	35.4	37.0	38.4	40.7	. .	48.5	51.2	52.7	54.0	55.4	39 14.74	− 0.23	22.83	20 38 51.68	5.10
	* + 33° 54′ . .	6	. .	. .	. .	. .	. .	. .	32.1	35.1	36.6	38.2	39.6	42 36.32	40.61	22.83	20 41 32.88	3.05
	Weisse (2) 1373 .	7	16.4	17.6	19.2	20.5	21.8	. .	55.5	58.5	59.9	1.4	3.0	42 39.38	− 20.34	22.83	20 41 56.21	3.05
	O. Arg. S. 20922 .	8	38.1	40.2	41.4	51.4	52.5	53.8	55.1	56.2	6.3	7.4	9.6	45 53.82	+ 0.11	22.83	20 45 31.10	4.79
	* + 36° 44′ . .	9	. .	. .	. .	12.9	14.3	16.9	36.1	39.0	40.5	42.2	43.5	51 30.68	− 32.53	22.83	20 50 35.32	2.95
	* + 38° 2′ . .	10	. .	. .	. .	39.7	41.0	42.5	44.0	45.3	57.6	58.9	1.4	7 48.80	6.39	22.83	21 7 19.58	2.95
	Lalande 41269 .	11	. .	41.7	43.1	54.0	55.1	56.6	58.0	59.0	10.1	11.4	. .	8 56.56	0.05	22.83	21 8 33.68	3.31
	Lalande 41624 .	12	36.4	39.1	40.5	52.6	53.9	55.5	56.9	58.3	10.5	11.9	14.5	17 55.46	− 0.08	22.83	21 17 32.55	2.92
	B. A. C. 7466 . .	13	56.2	58.6	59.9	10.5	11.5	12.8	14.1	15.4	26.0	27.1	29.5	23 12.87	+ 0.15	22.83	21 22 50.19	4.59
	(* 39) Washington	14	. .	. .	. .	18.0	19.1	21.4	37.3	39.9	41.2	42.3	43.7	24 32.86	− 27.01	22.83	21 23 43.02	4.60
	Weisse 691 . .	15	11.2	13.3	14.4	24.0	25.1	26.4	27.5	28.5	38.3	39.3	41.4	30 26.31	+ 0.07	22.83	21 30 3.55	4.26
	9 Cephei	16	16.5	20.6	23.0	43.3	45.4	47.9	50.3	52.6	12.8	15.0	19.1	34 47.86	− 0.25	22.83	21 34 24.78	1.10
	O. Arg. S. 21629 .	17	30.1	32.3	33.5	43.6	44.7	45.9	47.2	48.3	58.6	59.8	1.9	39 45.99	+ 0.11	22.83	21 39 23.27	4.55
	O. Arg. S. 21677 .	18	5.6	8.2	9.4	20.4	21.5	22.9	24.2	25.4	36.2	37.5	39.8	43 22.83	0.16	22.83	21 43 0.16	4.7
	* + 3° 5′ . . .	19	29.6	31.7	32.8	42.4	43.5	44.5	45.8	46.8	56.3	57.5	59.6	46 44.59	+ 0.04	22.83	21 46 21.80	3.95
	* + 3° 8′ . . .	20	15.4	16.5	17.7	18.8	19.9	. .	47.8	50.3	51.5	52.8	54.0	48 34.47	− 16.82	22.83	21 47 54.82	3.94
	* − 21° 23′ . .	21	27.4	29.6	30.7	41.1	42.2	43.4	44.7	45.7	56.3	57.3	59.6	54 43.45	− 0.02	22.83	21 54 20.60	4.50
	O. Arg. S. 21841 .	22	57.2	59.6	0.6	10.9	12.1	13.6	14.8	15.9	26.3	27.5	29.8	57 13 48	+ 0.13	22.83	21 56 50.78	4.50
	* − 23° 12′ . .	23	47.2	49.6	50.8	1.1	2.2	3.6	4.9	5.9	16.4	17.6	20.0	1 3.57	+ 0.14	22.83	22 0 40.88	4.49
	Lalande 43320 .	24	. .	. .	. .	50.2	51.4	53.0	54.5	55.7	. .	. .	. .	5 52.96	− 0.08	22.83	22 5 30.05	2.35
	θ Aquarii . . .	25	1.7	4.0	5.0	14.7	15.7	17.0	18.2	19.2	29.0	30.1	32.2	10 16.98	+ 0.08	22.83	22 9 54.23	4.10
	* − 35° 11′ . .	26	0.0	1.6	3.3	4.8	7.4	. .	20.8	23.8	25.2	26.9	28.4	14 44.22	− 0.23	22.83	22 14 21.16	4.67
	* − 35° 9′ . .	27	32.6	35.1	36.4	48.2	49.5	50.9	52.3	53.7	5.4	6.7	9.1	14 50.90	+ 0.20	22.83	22 14 28.27	4.60
	* + 38° 33′ . .	28	14.1	16.9	18.3	30.6	31.8	33.5	34.8	36.3	48.6	49.9	52.6	18 33.40	− 0.08	22.83	22 18 10.49	2.78
	* + 36° 46′ . .	29	0.7	3.5	4.8	16.8	17.9	19.3	20.8	21.3	34.4	35.7	38.2	21 19.40	− 0.08	22.83	22 20 56.49	2.51
	O. Arg. S. 22230 .	30	16.1	18.5	19.6	30.0	31.1	32.5	33.7	34.9	45.4	46.5	48.8	27 32.46	+ 0.14	22.83	22 27 9.77	4.27
	* − 35° 24′ . .	31	0.3	3.0	4.3	16.0	17.2	18.6	20.2	21.4	33.3	34.5	37.1	31 18.72	0.20	22.83	22 30 56.09	4.49
	* − 30° 22′ . .	32	3.6	6.0	7.3	18.6	19.6	20.9	22.3	23.6	34.7	36.0	38.4	36 21.00	0.17	22.83	22 35 58.34	4.33
	Lacaille 9269 . .	33	15.7	18.1	19.4	30.0	31.1	32.3	33.6	34.7	45.2	46.3	48.7	42 32.28	0.14	22.83	22 42 9.59	4.15
	Lacaille 9286 . .	34	0.8	3.3	4.7	17.2	18.5	20.2	21.7	23.0	35.7	37.1	39.8	45 20.18	+ 0.23	22.83	22 44 57.58	4.42
	Rumker 10753 .	35	59.4	3.0	5.4	22.7	24.5	26.7	29.0	30.8	48.4	50.2	54.0	50 26.74	− 0.20	22.83	22 50 3.71	1.64
	Lalande 45037 .	36	53.0	55.8	57.0	9.4	10.6	12.2	13.6	15.0	27.2	28.6	31.2	55 12.15	0.08	22.83	22 54 49.24	2.72
	* + 38° 11′ . .	37	24.3	27.0	28.6	40.7	42.0	43.6	45.1	46.4	58.6	59.8	2.5	58 43.51	− 0.08	22.83	22 58 20.60	2.71
	Weisse 45 . . .	38	. .	39.8	40.9	50.6	51.6	52.8	54.0	55.1	4.7	5.8	. .	4 52.82	+ 0.07	22.83	23 4 30.06	3.71
	* − 22° 03′ . .	39	47.7	50.0	51.2	1.8	2.9	4.1	5.3	6.5	16.9	18.1	20.3	9 4.07	0.13	22.83	23 8 41.37	3.00
	O. Arg. S. 22721 .		44.9	47.2	48.3	58.7	59.8	1.0	2.3	3.4	13.8	14.9	17.1	10 1.04	+ 0.13	22.83	23 9 38.34	3.59
		40																
	O. Arg. S. 22723 .	41	36.3	37.6	39.0	40.4	42.7	. .	47.4	50.0	51.4	52.8	54.0	10 15.16	− 0.25	22.83	23 9 52.08	3.59
	* − 34° 38′ . .	42	45.4	47.9	49.2	0.8	2.2	3.6	4.9	6.3	28.2	29.4	31.9	14 3.62	+ 0.20	22.83	23 13 40.99	4.00
	* + 36° 56′ . .	43	26.4	29.0	30.5	42.6	43.7	45.2	46.6	47.7	0.1	1.5	4.0	17 45.21	− 0.08	22.83	23 17 22.30	2.75
	Lacaille 9482 . .	44	40.2	42.7	43.9	54.9	56.1	57.5	58.7	59.8	10.8	12.0	14.3	20 57.35	+ 0.16	22.83	23 20 34.68	3.56
	Weisse 473 . .		31.5	33.6	34.8	44.3	45.3	46.6	47.7	48.8	58.3	59.6	1.6	24 46.55	0.05	22.83	23 24 23.77	3.50
		45																
	* − 37° 32′ . .	46	1.2	3.9	5.3	17.4	18.6	20.1	21.7	22.9	35.2	36.5	39.1	30 20.17	0.21	22.83	23 29 57.55	3.54
	B. A. C. 8241 . .	47	0.5	3.4	4.6	18.0	19.3	21.0	22.5	24.0	37.2	38.7	41.4	35 20.96	+ 0.25	22.83	23 34 58.38	3.51
	τ Capricorni . .	48	35.7	39.8	42.0	59.9	2.0	4.3	6.5	8.6	26.5	28.5	32.3	41 4.19	− 0.21	22.83	23 40 41.15	1.68
	* + 34° 19′ . .	49	33.8	36.3	37.7	49.4	50.5	51.9	53.4	54.7	6.5	7.8	10.3	46 52.03	− 0.07	22.83	23 46 29.13	2.54
	Lacaille 9657 . .	50	. .	. .	. .	12.9	14.2	16.0	17.7	18.9	. .	. .	. .	50 15.94	+ 0.25	−22.83	23 49 53.36	+ 3.61

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
Nov. 3, 23.3	− 22.83	− 0.001	− 0.19	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	s.	s.	h. m. s.	s.
1868. Nov. 3 Y.	Lacaille 9673 . .	1	25.0	27.9	29.4	42.5	. .	45.7	. .	48.4	1.8	3.2	6.1	52 45.56	+ 0.25	−22.83	23 52 22.98	+ 3.58
	* + 0° 49′ . . .	2	3.7	5.8	6.9	16.7	17.7	18.8	19.9	21.0	30.8	31.9	33.9	57 18.83	+ 0.05	22.83	23 56 56.05	3.31
	Weisse (2) 1312 .	3	8.1	10.8	12.2	24.4	25.6	27.2	28.6	30.0	42.2	43.6	46.2	0 27.17	− 0.08	22.83	0 0 4.26	2.75
	Weisse 24 . . .	4	21.6	23.8	24.9	34.4	35.4	36.7	37.9	38.8	48.5	49.5	51.6	3 36.65	+ 0.04	22.83	0 3 13.86	3.33
	B. A. C. 25 . .	5	. .	24.7	26.1	39.8	40.9	42.7	44.3	45.7	58.7	0.2	. .	5 42.57	0.25	22.83	0 5 19.99	3.41
	B. A. C. 37 . .	6	24.9	27.4	28.7	40.5	41.8	43.2	44.7	46.0	57.7	58.8	1.6	8 43.41	0.20	22.83	0 8 20.58	3.41
	* + 0° 13 . . .	7	25.4	27.4	28.6	38.3	39.3	40.4	41.5	42.6	52.4	53.4	55.5	11 40.44	+ 0.05	22.83	0 11 17.66	3.33
	ρ Andromedæ . .	8	17.8	20.5	21.8	34.0	35.3	36.8	38.3	39.6	51.6	53.0	55.6	14 36.75	− 0.08	22.83	0 14 13.84	2.71
	* + 37° 51′ . .	9	. .	44.6	46.0	58.2	59.5	1.2	2.7	3.9	16.0	17.4	. .	17 1.06	− 0.08	22.83	0 16 38.15	2.78
	48 Piscium . . .	10	31.6	33.8	35.0	45.0	46.0	47.2	48.5	49.6	59.6	0.7	2.8	21 47.25	0.00	22.83	0 21 24.42	3.16
	Lacaille 126 . .	11	16.0	18.7	20.0	32.5	33.7	35.4	36.6	38.3	50.6	52.0	54.8	27 35.33	+ 0.22	22.83	0 27 12.72	3.18
	* − 25° 13′ . .	12	21.6	24.0	25.3	. .	. .	. .	. .	. .	51.5	52.6	54.9	30 38.32	0.15	22.83	0 30 15.64	3.27
	* − 25° 12′ . .	13	. .	. .	. .	40.0	41.1	42.5	43.8	44.9	. .	. .	. .	30 42.46	0.15	22.83	0 30 19.78	3.27
	* − 25° 45′ . .	14	27.3	29.6	30.8	41.5	42.6	43.9	45.3	46.5	57.2	58.4	0.7	33 43.98	0.15	22.83	0 33 21.30	3.23
	β Ceti	15	7.2	9.4	10.6	20.9	22.0	23.2	24.5	25.6	35.9	36.9	39.0	37 23.20	0.11	22.83	0 37 0.48	3.25
	Weisse 678 . .	16	10.1	12.3	13.4	22.9	24.1	25.2	26.3	27.3	37.0	38.1	40.1	40 25.16	0.04	22.83	0 40 2.38	3.22
	* + 1° 34′ . . .	17	37.4	39.6	40.7	50.2	51.2	52.3	53.5	54.6	4.4	5.4	7.4	42 52.43	+ 0.05	22.83	0 42 29.65	3.22
	Lalande 1443 . .	18	45.5	48.2	49.7	1.8	3.0	4.6	6.0	7.4	19.5	20.9	23.5	46 4.55	− 0.08	22.83	0 45 41.64	2.84
	* − 27° 3′ . . .	19	49.1	51.5	52.6	3.5	4.5	5.8	7.2	8.3	19.2	20.4	22.8	50 5.90	+ 0.16	22.83	0 49 43.23	3.10
	Weisse 902 . .	20	48.0	50.0	51.1	0.7	1.7	2.9	4.1	5.1	14.8	15.8	17.9	53 2.92	0.04	22.83	0 52 40.13	3.19
	B. A. C. 284 . .	21	. .	33.2	34.6	46.9	48.1	49.8	51.4	52.8	4.9	6.2	. .	55 49.77	0.22	22.83	0 55 27.16	2.86
	* + 7° 12′ . . .	22	17.7	19.2	20.8	30.7	31.6	32.8	33.9	35.0	44.8	45.9	48.0	58 32.82	0.03	22.83	0 58 10.02	3.16
	O. Arg. S. 644 .	23	26.5	28.8	30.1	41.0	42.1	43.6	44.9	46.1	57.1	58.3	0.7	1 43.56	+ 0.16	22.83	1 1 20.89	2.99
	χ Piscium . . .	24	31.8	33.9	35.2	45.5	46.6	47.8	49.0	50.2	0.4	1.5	3.8	4 47.79	− 0.02	22.83	1 4 24.94	3.10
	O. Arg. S. 704 .	25	7.6	9.7	11.2	21.8	22.8	24.1	25.4	26.6	37.3	38.4	40.7	8 24.15	+ 0.15	22.83	1 8 1.47	+ 3.06
	Polaris	26	. .	. .	. .	55.0	35.0	23 0	12.0	55.0	. .	. .	. .	12 24.00	− 5.76	22.83	. . . .	− 37.74
	* − 1° 11′ . . .	27	. .	. .	. .	42.0	43.0	45.0	0.4	2.7	4.0	5.3	6.5	15 56.11	− 25.97	22.83	1 15 7.31	+ 3.10
	O. Arg. S. 818 .	28	19.9	22.6	23.8	34.8	35.9	37.3	38.7	39.7	50.9	52.1	54.5	18 37.29	+ 0.17	22.83	1 18 14.63	2.85
	(* 61) Washington	29	11.8	14.0	15.1	24.8	25.8	27.0	28.3	29.2	38.9	40.1	42.0	21 27.00	0.03	22.83	1 21 4.20	3.13
	Weisse 410 . .	30	7.4	9.6	10.6	20.5	21.4	22.6	23.7	24.8	34.6	35.7	37.8	25 22.61	0.02	22.83	1 24 59.80	3.12
	* − 2° 19′ . . .	31	. .	. .	. .	21.9	22.9	24.1	25.2	26.3	. .	. .	. .	26 24.08	0.06	22.83	1 26 1.31	3.09
	Weisse 432 . .	32	9.8	12.0	13.0	. .	. .	. .	. .	. .	36.7	37.9	39.9	26 24.88	+ 0.06	22.83	1 26 2.11	3.09
	* − 24° 7′ . . .	33	. .	15.9	16.9	18.3	19.5	20.7	51.4	53.9	55.2	56.6	57.9	29 36.63	− 18.30	22.83	1 28 55.50	2.86
	Weisse 540 . .	34	17.6	19.8	20.9	30.5	31.5	32.7	33.9	35.0	44.6	45.6	47.6	32 32.70	+ 0.04	22.83	1 32 9.91	3.07
	Lacaille 492 . .	35	22.2	24.6	26.0	37.5	38.6	40.1	41.5	42.9	54.6	55.8	58.4	35 40.20	0.19	22.83	1 35 17.56	2.62
	* + 3° 1′ . . .	36	4.7	6.7	7.8	17.5	18.4	19.6	20.7	21.8	31.5	32.6	34.6	39 19.63	+ 0.04	22.83	1 38 56.84	3.09
	B. A. C. 544 . .	37	. .	. .	. .	16.1	17.3	18.8	20.1	21.5	33.7	35.0	37.6	41 25.01	− 6.34	22.83	1 40 55.84	3.03
	B. A. C. 563 . .	38	12.7	15.5	16.8	29.1	30.6	31.9	33.4	34.9	47.6	48.7	51.4	44 32.05	+ 0.22	22.83	1 44 9.44	2.40
	O. Arg. S. 1146 .	39	53.6	55.9	57.1	8.0	9.1	10.4	11.7	12.9	23.6	24.8	27.1	47 10.38	0.15	22.83	1 46 47.70	2.71
	Lacaille 569 . .	40	18.9	21.6	23.0	35.0	36.3	37.8	39.2	40.5	52.6	54.2	56.6	50 37.79	0.21	22.83	1 50 15.17	2.41
	O. Arg. S. 1245 .	41	40.5	42.9	44.0	54.8	56.0	57.2	58.6	59.8	10.6	11.7	14.0	55 57.28	0.15	22.83	1 55 34.60	2.66
	O. Arg. S. 1259 .	42	54.9	57.3	58.5	9.0	10.1	11.5	12.8	13.9	24.6	25.8	28.0	57 11.49	0.14	22.83	1 56 48.80	2.69
	Lalande 3979 . .	43	39.7	41.9	43.1	53.4	54.5	55.7	56.9	58.0	8.2	9.2	11.5	2 55.65	0.11	22.83	2 2 32.93	2.79
	ξ^1 Ceti	44	11.0	13.3	14.5	24.2	25.2	26.3	27.6	28.6	38.4	39.4	41.6	6 26.37	0.03	22.83	2 6 3.57	3.10
	O. Arg. S. 1421 .	45	30.0	32.2	33.4	43.4	44 5	45.6	46.7	47.8	58.0	59.1	1.3	9 45.64	+ 0.11	22.83	2 9 22.92	2.80
	i Persei	46	12.5	16.1	18.2	34.9	36.7	38.9	40.9	42.8	59.8	1.6	5.1	13 38.86	− 0.19	22.83	2 13 15.84	2.96
	O. Arg. S. 1522 .	47	. .	56.6	57.8	8.0	9.1	. .	11.7	12.8	22.9	24.0	. .	17 10.36	+ 0.12	22.83	2 16 47.65	2.72
	O. Arg. S. 1535 .	48	21.6	23.7	24.8	35.1	36.2	37.4	38.7	39.8	50.0	51.1	53.4	18 37.44	+ 0.12	22.83	2 18 14.73	2.72
	* + 38° 22′ . .	49	10.6	13.2	14.8	27.0	28.3	29.7	31.2	32.6	45.1	46.4	48.9	22 29.80	− 0.08	22.83	2 22 6.89	3.21
	Lalande 4667 . .	50	. .	. .	. .	30.9	32.2	34.7	53.7	56.9	58.4	0.0	1.6	25 48.55	− 32.54	−22.83	2 24 53.18	+ 3.22

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Nov. 3, 23.3	− 22.83	− 0.001	− 0.19	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.			Observed R. Ascension.		Reduct'n to 1870.0
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.		Inst.	Clock.			
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m.	s.	s.	h. m. s.		s.
1868. Nov. 3 Y.	Lacaille 789	1	41.6	44.4	45.6	57.1	58.4	59.9	1.2	2.5	14.0	15.4	17.9	28 59.80	+	0.19	−22.83	2 28 37.16	+	2.25
	* − 34° 15′	2	29.1	31.7	33.1	44.6	45.8	47.2	48.7	49.8	1.7	2.9	5.5	32 47.28		0.19	22.83	2 32 24.64		2.21
	Lacaille 846	3	8.7	11.0	12.4	23.2	24.2	25.6	27.0	28.1	39.2	40.5	42.8	38 25.70	+	0.16	22.83	2 38 3.03		2.33
4	ζ Cephei	4	14.2	18.0	20.2	38.2	40.1	42.2	44.3	46.5	4.3	6.4	10.1	6 42.23	−	0.24	22.87	22 6 19.12		1.55
	θ Aquarii	5	1.7	3.9	5.1	14.8	15.8	17.0	18.2	19.3	29.0	30.1	32.3	10 17.02	+	0.08	22.87	. . . .		4.11
	32 Pegasi	6	21.9	24.4	25.8	36.5	37.6	39.0	40.4	41.6	52.3	53.6	55.9	15 39.00	−	0.05	22.87	22 15 16.08		3.17
	B. A. C. 7829	7	15.4	19.8	22.3	43.3	45.6	48.2	50.7	52.8	14.1	16.4	20.7	21 48.12		0.30	22.87	22 21 24.95	+	0.97
	B. A. C. 7881	8	. .	. .	. .	15.0	18.8	23.7	28.5	32.9	. .	. .	. .	30 23.78		0.61	22.87	22 30 0.30	−	2.18
	16 Lacertæ	9	28.1	30.8	32.4	44.9	46.4	47.9	49.4	50.9	3.7	5.0	7.8	50 47.94	−	0.12	22.87	22 50 24.95	+	2.62
	2 Piscium	10	. .	. .	. .	4.4	5.6	6.8	8.0	9.1	. .	. .	. .	53 6.78	+	0.05	22.87	22 52 43.96		3.64
5	α Pegasi	11	21.0	23.1	24.3	34.3	35.2	36.5	37.9	38.8	48.7	49.8	51.9	58 36.50		0.00	22.72	22 58 13.78		3.41
	Weisse 47	12	39.7	41.8	42.9	52.4	53.5	54.6	55.8	56.9	6.6	7.6	9.7	4 54.68		0.04	22.72	23 4 32.00		3.60
	Lacaille 9415	†13	4.7	7.6	9.2	22.2	23.3	24.6	25.3	26.7	40.7	41.9	44.7	9 24.63		0.25	22.71	23 9 2.17		4.17
	* − 39° 10′	14	42.0	44.5	45.8	58.3	59.5	1.0	2.5	3.9	16.6	17.8	20.5	13 1.13		0.23	22.71	23 12 38.65		4.10
	* − 39° 14′	15	30.8	33.3	34.9	47.4	48.7	50.2	51.6	53.0	5.5	6.7	9.	13 50.14		0.23	22.71	23 13 27.66		4.10
	* − 34° 7′	16	49.1	51.7	52.7	4.4	5.7	7.1	8.5	9.9	21.5	22.7	25.3	17 7.15		0.20	22.71	23 16 44.64		3.90
	Lalande 45892	17	12.6	15.0	16.2	26.0	27.1	28.4	29.7	30.7	40.7	41.9	44.0	20 28.39		0.11	22.71	23 20 5.79		3.76
	11 Piscium	18	50.5	52.7	53.8	3.3	4.3	5.6	6.8	7.8	17.5	18.6	20.5	23 5.58	+	0.06	22.71	23 22 42.93		3.58
	Lalande 46097	19	37.4	40.1	41.4	53.5	54.8	56.4	57.9	59.1	11.3	12.6	15.2	25 56.34	−	0.10	22.71	23 25 33.53		2.76
	* + 37° 32′	20	0.9	3.7	5.2	17.1	18.4	20.0	21.4	22.6	. .	. .	. .	30 13.66	+	6.50	22.71	23 29 57.45		3.57
	Laland. 46496, (1st *)	†21	22.9	25.0	26.2	. .	. .	. .	. .	. .	50.0	51.0	53.1	37 38.03		0.02	22.71	23 37 15.34		3.40
	Laland. 46496, (2d *)	†22	. .	. .	. .	35.9	36.9	38.2	39.3	40.4	. .	. .	. .	37 38.14		0.02	22.71	23 37 15.45		3.40
	* − 32° 8′	23	47.4	49.9	51.1	2.5	3.7	5.1	6.4	7.7	19.2	20.4	22.8	43 5.11	+	0.19	22.71	23 42 42.59		3.70
	Weisse (2) 994	24	14.8	17.4	18.8	30.7	31.9	33.4	34.9	36.4	48.3	49.7	52.4	48 33.52	−	0.09	22.70	23 48 10.73		2.70
	Weisse 1040	25	. .	31.6	32.8	42.6	43.6	44.8	46.0	47.1	57.0	58.1	. .	51 44.84	+	0.01	22.70	23 51 22.15		3.39
	B. A. C. 8355	26	43.8	48.5	51.1	. .	. .	. .	. .	. .	48.0	50.6	55.4	56 19.57	−	0.34	22.70	23 55 56.53		1.04
	* + 65° 22′	27	. .	. .	. .	16.9	19.0	21.9	24.7	27.1	. .	. .	. .	56 21.92		0.34	22.70	23 55 58.88		1.04
	Lalande 47298	28	2.2	4.8	6.0	18.0	19.3	20.8	22.4	23.6	35.6	36.9	39.5	1 20.83	−	0.09	22.70	0 0 58.04		2.81
	Lacaille 9753	29	10.9	13.4	14.7	26.6	27.8	29.3	30.8	32.0	43.7	45.0	47.5	4 29.25	+	0.22	22.70	0 4 6.77		3.45
	Lacaille 4	30	34.6	37.6	39.0	52.6	53.9	55.6	57.2	58.7	12.1	13.5	16.4	6 55.56		0.27	22.70	0 6 33.13		3.42
	* − 32° 46′	31	. .	. .	. .	4.3	5.5	7.0	8.4	9.7	. .	. .	. .	9 6.98	+	0.20	22.70	0 8 44.48		3.44
	Lalande 330	32	59.9	2.4	3.7	15.5	16.8	18.4	19.8	21.0	32.9	34.3	36.8	13 18.32	−	0.09	22.70	0 12 55.53		2.83
	Lalande 421	33	7.0	9.6	10.9	23.4	24.5	26.1	27.6	28.9	41.1	42.4	45.0	16 26.05		0.10	22.70	0 16 3.25		2.79
	Lalande 508	34	46.9	49.5	50.8	2.7	40.0	5.5	7.0	8.1	19.9	21.4	23.9	19 5.43		0.09	22.70	0 18 42.64		2.85
	Lalande 656	35	58.1	0.6	2.0	14.2	15.4	17.0	18.4	19.8	32.0	33.3	35.8	23 16.96	−	0.10	22.69	0 22 54.17		2.81
	Weisse 421	36	4.7	7.0	8.1	17.8	18.9	20.1	21.3	22.3	32.2	33.1	35.2	26 20.06	+	0.09	22.69	0 25 57.46		3.32
	Lalande 863	37	38.5	40.9	42.4	54.1	55.3	56.7	58.3	59.7	11.4	12.8	15.4	28 56.86	−	0.09	22.69	0 28 34.08		2.86
	Lalande 963	38	. .	. .	. .	35.7	37.0	38.6	40.1	41.4	. .	. .	. .	31 38.56	−	0.09	22.69	0 31 15.78		2.86
	Weisse 641	39	58.1	0.2	1.5	11.0	12.1	13.2	14.4	15.4	25.0	26.2	28.4	38 13.23	+	0.07	22.69	0 37 50.61		3.26
	* − 6° 22′	40	33.7	35.8	37.0	46.7	47.7	48.9	50.1	51.2	0.6	1.9	4.1	39 48.88		0.07	22.69	0 39 26.26		3.25
	O. Arg. S. 452	41	. .	. .	. .	53.6	54.7	55.9	57.2	58.4	. .	. .	. .	43 55.96		0.15	22.69	0 43 33.42		3.17
	Weisse 801	42	48.6	50.6	51.9	1.5	2.5	3.7	4.8	5.9	15.6	16.7	18.7	47 3.68		0.02	22.69	0 46 41.01		3.19
	* − 27° 3′	43	48.9	51.1	52.6	3.4	4.6	5.7	6.9	8.0	19.0	20.2	22.6	50 5.73		0.17	22.69	0 49 43.21		3.11
	Weisse 902	44	47.9	50.0	51.1	. .	. .	. .	. .	. .	14.7	15.8	17.9	53 2.90		0.04	22.69	0 52 40.25		3.16
	ε Piscium	45	16.3	18.5	19.5	29.2	30.2	31.5	32.6	33.7	43.2	44.4	46.5	56 31.42		0.02	22.69	0 56 8.75		3.12
	28 Ceti	46	37.8	40.0	41.1	50.8	51.9	53.1	54.3	55.5	5.2	6.3	8.4	59 53.13		0.09	22.69	0 59 30.53		3.15
	η Ceti	47	7.3	9.3	10.5	20.2	21.3	22.5	23.7	24.8	34.6	35.7	37.7	2 22.51	+	0.09	22.68	1 1 59.92		3.11
	χ Piscium	48	31.7	34.0	35.2	45.5	46.5	47.8	49.0	50.1	0.4	1.5	3.7	4 47.76	−	0.02	22.68	1 4 25.06		3.10
	Rumker, N. F. 558	49	5.4	7.5	8.6	18.2	19.2	20.5	21.7	22.8	32.3	33.5	35.5	8 20.47	+	0.03	22.68	1 7 57.82	+	3.15
	Polaris	50	. .	. .	. .	55.0	33.0	25.0	12.0	55.0	. .	. .	. .	12 24.00	−	6.47	−22.68	. . . .	−	37.16

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
Nov. 4, 22 2	− 22.87	+ 0.007	− 0.21	+ 0.05
5, 1.3	− 22.68	+ 0.016	− 0.21	+ 0.05

13. Faint.
21. Southward, } close.
22. Northward, } close.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 5	Weisse 280	1	16.8	19.0	20.1	29.9	30.9	32.1	33.2	34.3	43.8	45.0	46.9	18 32.00	+ 0.06	−22.68	1 18 9.38	+ 3.11
Y.	* − 1° 8′	2	. .	. .	. .	. .	. .	. .	24.7	27.2	28.4	29.9	31.1	19 28.26	0.05	22.68	1 19 5.63	3.12
	Lalande 2612	3	50.8	52.8	53.9	. .	. .	. .	. .	. .	17.7	18.7	20.8	20 5.78	0.05	22.68	1 19 43.15	3.12
	Lalande 2614	4	. .	. .	. .	5.5	6.6	7.7	8.9	9.8	. .	. .	. .	20 7.70	0.05	22.68	1 19 45.07	3.12
	Weisse 410	5	7.3	9.5	10.6	20.3	21.4	22.6	23.6	24.6	34.5	35.6	37.7	25 22.52	0.01	22.68	1 24 59.85	3.12
	Rumker, N. F., 755	6	1.0	3.1	4.3	14.0	15.1	16.2	17.4	18.5	28.2	29.1	31.3	28 16.20	0.03	22.68	1 27 53.55	3.12
	Weisse 540	7	17.5	19.5	20.6	30.3	31.4	32.5	33.7	34.8	44.5	45.5	47.5	32 32.53	0.04	22.68	1 32 9.89	3.10
	Lacaille 492	8	22.0	24.5	25.8	37.4	38.6	40.3	41.5	42.8	54.5	55.8	58.2	35 40.13	0.20	22.68	1 35 17.65	2.62
	* + 3° 1′	9	4.6	6.7	7.8	17.4	18.4	19.5	20.6	21.8	31.5	32.5	34.7	39 19.59	+ 0.04	22.68	1 38 56.95	3.09
	* + 36° 41′	†10	32.3	34.7	36.2	. .	. .	. .	. .	. .	5.8	7.0	9.4	45 50.90	− 0.09	22.68	1 45 28.13	3.05
	* + 36° 41′	11	. .	. .	. .	48.2	49.5	51.0	52.5	53.8	. .	. .	. .	45 51.00	0.09	22.67	1 45 28.24	3.05
	B. A. C. 579	12	14.0	16.8	18.2	30.2	31.5	33.2	34.7	36.0	47.8	49.1	51.5	48 33.00	0.09	22.67	1 48 10.24	3.06
	B. A. C. 580	13	. .	. .	. .	1.0	2.1	4.5	23.5	26.6	28.2	29.7	31.3	49 18.36	− 32.49	22.67	1 48 23.20	3.06
	O. Arg. S. 1261	14	1.1	3.4	4.7	15.1	16.2	17.4	18.7	19.8	30.3	31.5	33.6	57 17.44	+ 0.14	22.67	1 56 54.91	2.73
	58 Andromedæ	15	39.7	42.3	43.7	56.0	57.1	58.7	0.0	1.4	13.5	14.9	17.5	0 58.62	− 0.10	22.67	2 0 35.85	3.10
	ξ¹ Ceti	16	11.0	13.1	14.3	24.0	24.9	26.2	27.5	28.6	38.3	39.3	41.5	6 26.25	+ 0.02	22.67	2 6 3.60	3.09
	γ Trianguli	17	37.2	39.6	40.9	52.4	53.6	55.1	56.4	57.8	9.2	10.4	13.0	9 55.05	− 0.08	22.67	2 9 32.30	3.16
	Lalande 4387	18	10.6	13.4	14.9	27.2	28.4	29.9	31.6	32.8	45.1	46.5	49.0	16 29.95	− 0.10	22.67	2 16 7.18	3.17
	Weisse 278	19	20.5	22.7	23.9	33.6	34.6	35.8	37.0	38.1	47.9	48.9	51.0	18 35.82	+ 0.02	22.66	2 18 13.18	3.09
	* + 38° 22′	20	10.5	13.3	14.5	26.9	28.0	29.7	31.2	32.5	44.8	46.1	48.9	22 29.67	− 0.10	22.66	2 22 6.91	3.20
	* + 38° 57′	21	39.1	41.7	43.3	55.7	57.0	58.7	0.1	1.4	13.8	15.1	17.8	24 58.52	0.10	22.66	2 24 35.76	3.21
	Weisse (2) 642	22	39.4	42.0	43.3	55.4	56.6	58.2	59.7	0.9	13.0	14.3	16.8	27 58.15	− 0.09	22.66	2 27 35.40	3.23
	B. A. C. 817	23	28.9	31.0	32.1	41.8	42.9	44.1	45.2	46.3	56.0	57.1	59.3	33 44.06	+ 0.03	22.66	2 33 21.43	3.06
	Weisse 580	24	21.6	23.8	24.9	34.4	35.3	36.5	37.7	38.8	48.5	49.6	51.6	34 36.61	+ 0.03	22.66	2 34 13.98	3.06
	O. Arg. S. 1758	25	. .	. .	. .	. .	. .	. .	12.1	14.9	16.4	17.8	19.4	37 16.12	− 38.13	22.66	2 36 15.33	2.38
	Lacaille 846	26	8.5	10.9	12.2	23.0	24.1	25.6	26.9	28.0	39.0	40.3	42.7	38 25.56	+ 0.17	22.66	2 38 3.07	2.37
	Lalande 5181	27	30.4	33.0	34.4	46.3	47.6	49.0	50.4	51.9	3.7	5.2	7.7	41 49.05	− 0.09	22.66	2 41 26.30	3.29
	Lacaille 891	28	57.9	0.2	1.8	12.9	14.1	15.7	17.1	18.3	29.5	30.7	33.1	44 15.57	+ 0.19	22.66	2 43 53.10	2.24
	* − 23° 41′	29	59.6	2.0	3.1	13.7	14.8	16.0	17.2	18.5	29.0	30.1	32.4	48 16.04	+ 0.15	22.66	2 47 53.53	2.47
	O. Arg. S. 1887	30	. .	. .	. .	43.4	44.5	45.8	47.1	48.3	58.7	59.9	2.1	48 51.21	− 5.28	22.66	2 48 23.27	2.48
	O. Arg. S. 1930	31	0.2	2.6	3.7	13.8	14.9	16.1	17.3	18.4	28.4	29.5	31.7	52 16.05	+ 0.11	22.66	2 51 53.50	2.69
	O. Arg. S. 1977	32	8.3	10.5	11.7	21.8	22.9	24.1	25.4	26.6	36.6	37.9	40.0	56 24.16	0.12	22.65	2 56 1.63	2.59
	* − 26° 17′	33	7.6	10.0	11.2	21.9	23.0	24.4	25.7	26.8	37.6	38.8	41.0	59 24.36	+ 0.16	22.65	2 59 1.87	2.35
	48 Cephei	34	7.2	17.5	22.5	5.8	10.6	15.8	21.2	25.9	10.2	14.6	23.8	4 15.92	− 0.70	22.65	3 3 52.57	2.82
	ζ Arietis	35	29.2	31.4	32.7	42.8	43.9	45.3	46.7	47.9	. .	. .	. .	7 39.99	+ 5.29	−22.65	3 7 22.63	3.28
6	1 Pegasi	36	. .	. .	. .	. .	. .	. .	29.7	32.4	33.6	35.0	36.3	16 0.86	− 35.65	+ 3.06	21 16 0.81	3.68
	* − 25° 28′	37	. .	. .	. .	. .	. .	. .	16.7	19.3	20.7	22.1	23.5	18 20.46	37.14	3.06	21 17 46.38	4.98
	Lacaille 8827	38	. .	34.5	35.8	37.5	39.0	40.7	19.9	23.4	25.4	26.9	28.6	22 1.17	− 23.41	3.06	21 21 40.82	5.72
	ξ Aquarii	39	27.0	29.1	30.3	40.0	41.1	42.2	43.5	44.6	54.2	55.4	57.4	30 42.25	+ 0.08	3.06	21 30 45.39	4.39
	B. A. C. 7538	40	14.0	16.8	18.5	31.8	33.0	35.1	36.6	37.9	51.5	52.9	55.9	34 34.91	+ 0.24	3.06	21 34 38.21	5.52
	O. Arg. N. 22729	41	. .	. .	. .	11.7	14.7	18.2	22.0	25.1	. .	. .	. .	37 18.34	− 0.33	3.06	21 37 21.07	0.43
	* + 38° 55′	42	. .	. .	. .	38.8	40.3	42.9	2.5	5.7	7.3	8.8	10.4	39 57.09	33.51	3.06	21 39 26.64	2.87
	* + 2° 6′	43	. .	. .	. .	26.3	27.5	29.4	44.9	47.3	48.5	49.7	51.0	42 40.58	− 25.98	3.06	21 42 17.66	4.04
	* − 12° 37′	44	58.9	1.0	2.2	11.9	12.9	14.2	15.4	16.5	26.3	27.6	29.5	53 14.22	+ 0.09	3.07	21 53 17.38	4.33
	Lacaille 9006	45	2.9	5.7	7.3	19.7	21.0	22.7	24.1	25.4	38.0	39.4	42.0	56 22.56	+ 0.21	3.07	21 56 25.84	5.06
	ι Pegasi	46	34.7	37.0	38.2	48.8	49.9	51.2	52.5	53.7	4.3	5.6	7.9	0 51.25	− 0.02	3.07	22 0 54.30	3.34
	Weisse 129	47	25.3	27.3	28.4	37.9	39.1	40.3	41.5	42.6	52.0	53.1	55.2	7 40.25	+ 0.05	3.07	22 7 43.37	3.92
	* + 66° 2′	48	59.8	4.8	7.4	31.6	33.7	36.4	39.6	42.3	6.0	8.7	13.5	11 36.71	− 0.26	3.07	22 11 39.52	0.54
	* − 38° 53′	49	35.4	38.1	39.4	51.7	52.8	54.6	55.9	57.6	9.7	11.1	14.8	16 54.65	+ 0.20	3.07	22 16 57.92	4.80
	δ¹ Gruis	50	0.0	3.2	4.7	18.0	19.4	21.0	22.5	23.8	37.4	39.0	41.9	21 20.99	+ 0.24	+ 3.08	22 21 24.31	+ 4.90

10. Northward, very close.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Nov. 6, 23.4	+ 3.09	+ 0.014	− 0.17	+ 0.05

DATE.	OBJECT.	Number.	I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 6	O. Arg. S. 22230 .	1	50.0	52.5	53.8	4.2	5.4	6.6	7.7	8.9	19.5	20.6	22.8	27 6.55	+ 0.13	+ 3.08	22 27 9.76	+ 4.61
Y.	* + 36° 4′ . . .	2	. .	53.3	54.8	6.7	7.9	9.4	10.9	12.2	24.0	25.3	. .	30 9.39	− 0.06	3.08	22 30 12.41	2.88
	10 Lacertæ . . .	3	0.8	3.5	4.9	17.3	18.5	19.9	21.4	22.9	35.2	36.5	38.9	33 19.98	− 0.07	3.08	22 33 22.99	2.73
	O. Arg. S. 22378 .	4	9.0	11.1	12.3	23.0	23.9	25.1	26.2	27.4	37.9	39.1	41.3	37 25.12	+ 0.13	3.08	22 37 28.33	4.19
	Rumker 10641 .	5	1.2	3.3	4.4	14.2	15.2	16.5	17.6	18.7	28.4	29.4	31.6	42 16.41	0.07	3.08	22 42 19.56	3.90
	Lalande 44877 .	6	15.5	17.6	18.9	29.2	30.2	31.5	32.8	33.9	44.3	45.4	47.6	50 31.54	0.12	3.08	22 50 34.74	4.07
	* − 6° 39′ . . .	7	47.4	49.4	50.6	0.2	1.3	2.5	3.6	4.7	14.4	15.5	17.5	55 2.46	0.07	3.08	22 55 5.61	3.31
	h^2 Aquarii . . .	8	10.3	12.5	13.7	23.3	24.4	25.6	26.8	27.9	37.6	38.6	40.8	58 25.59	0.08	3.08	22 58 28.75	3.52
	h^4 Aquarii . . .	9	3.6	5.9	7.2	16.8	17.9	19.1	20.3	21.4	30.9	32.0	34.3	0 19.04	+ 0.08	3.08	23 0 22.20	3.81
	ι Gruis	10	. .	. . .	. .	8.6	10.4	13.2	35.3	38.5	40.0	42.2	44.0	3 29.02	− 37.16	3.08	23 2 54.94	4.65
	Weisse 142 . .	11	35.5	37.7	38.8	48.3	49.5	50.7	51.8	52.9	2.6	3.6	5.7	8 50.65	+ 0.07	3.09	23 8 53.81	3.72
	Lacaille 9443 . .	12	8.8	11.9	13.2	26.5	27.7	29.2	30.6	32.0	45.5	46.9	48.7	12 29.18	0.23	3.09	23 12 32.50	4.16
	O. Arg. S. 22800 .	13	56.2	58.5	59.7	10.4	11.5	12.8	14.0	15.2	25.8	26.9	29.3	16 12.75	0.14	3.09	23 16 15.98	3.91
	* − 34° 21′ . .	14	16.6	19.2	20.5	32.2	33.3	34.7	36.2	37.4	49.1	50.5	52.9	20 34.78	0.18	3.09	23 20 38.05	3.96
	Weisse 443 . .	†15	34.1	36.3	37.3	47.0	48.0	49.2	50.4	51.4	1.0	2.1	4.1	22 49.17	+ 0.05	3.09	23 22 52.31	3.56
	Weisse 449 . .	16	. .	. . .	. .	21.7	22.8	24.8	39.9	42.6	43.8	45.0	46.2	23 35.85	− 25.96	3.09	23 23 12.98	3.56
	Weisse 679 . .	17	11.3	12.5	13.9	15.2	17.3	. .	17.7	20.1	21.3	22.6	23.9	33 47.58	− 0.32	3.09	23 33 50.35	3.42
	Weisse 683 . .	18	40.3	42.3	43.6	53.2	54.3	55.4	56.6	47.7	7.4	8.5	10.5	33 55.44	+ 0.03	3.09	23 33 58.56	3.42
	B. A. C. 8274 . .	19	29.6	31.8	32.9	42.6	43.7	45.0	46.1	57.1	56.8	57.9	0.0	41 44.86	0.07	3.09	23 41 48.02	3.54
	* − 5° 43′ . . .	20	12.5	14.5	15.7	25.3	26.4	27.6	28.7	29.8	39.6	40.6	42.7	47 27.58	0.07	3.10	23 47 30.75	3.50
	Lacaille 9665 . .	21	49.4	51.9	53.3	5.9	7.1	8.8	10.4	11.7	24.4	25.5	28.3	51 8.79	+ 0.21	3.10	23 51 12.10	3.60
	O. Arg. S. 23176 .	22	. .	. . .	. .	16.9	17.9	19.3	20.5	21.6	31.7	32.8	35.0	53 24.46	− 5.14	3.10	23 53 22.42	3.56
	Lacaille 9713 . .	23	56.1	58.9	0.2	12.2	13.3	14.7	16.4	17.6	29.7	31.2	33.6	58 14.90	+ 0.19	3.10	23 58 18.19	3.56
	Lacaille 9723 . .	24	35.5	38.3	39.5	51.5	52.6	54.1	55.6	56.9	8.9	10.3	12.9	59 54.19	+ 0.19	3.10	23 59 57.48	3.54
	γ Pegasi	25	10.8	13.0	14.2	24.0	25.1	26.3	27.5	28.6	38.6	39.7	41.9	6 26.34	0.00	3.10	0 6 29.44	3.23
	Lalande 330 . .	26	33.9	36.5	37.8	49.7	51.0	52.6	54.1	55.3	7.2	8.6	11.1	12 52.53	− 0.06	3.10	0 12 55.57	2.54
	* + 7° 25′ . . .	27	. .	. . .	. .	37.6	38.7	39.7	40.9	42.0	51.7	52.8	54.9	21 44.79	− 4.98	3.10	0 21 42.91	3.26
	Weisse 421 . .	28	39.0	41.3	42.5	52.2	53.1	54.4	55.6	56.7	6.4	7.5	9.6	25 54.39	+ 0.08	3.10	0 25 57.57	3.32
	Lalande 884 . .	29	42.9	45.5	46.9	59.0	0.3	1.9	3.4	4.7	16.7	18.2	20.8	29 1.85	− 0.07	3.10	0 29 4.88	2.93
	Lalande 966 . .	30	. .	. . .	. .	19.5	20.7	22.3	23.7	25.0	. .	. .	. .	31 22.24	0.07	3.11	0 31 25.28	2.94
	32 Andromedæ . .	31	39.6	42.4	43.8	56.1	57.4	58.8	0.4	1.8	14.1	15.6	18.1	33 58.91	− 0.07	3.11	0 34 1.95	2.81
	Weisse 428 . .	32	40.8	43.0	44.3	54.0	55.1	56.4	57.6	58.7	8.7	9.9	12.0	41 56.41	+ 0.10	3.11	0 41 59.62	3.23
	Santini 46 . . .	33	. .	. . .	. .	42.2	43.3	45.3	0.5	3.0	4.3	5.6	6.8	44 56.38	− 26.00	3.11	0 44 33.49	3.22
	21 Ceti	34	22.5	24.6	25.6	35.5	36.4	37.6	38.8	39.8	49.7	50.7	52.9	47 37.65	+ 0.08	3.11	0 47 40.84	3.21
	Weisse 912 . .	35	50.2	52.4	53.5	2.9	4.0	5.3	6.5	7.5	17.2	18.2	20.3	53 5.27	0.04	3.11	0 53 8.42	3.11
	Weisse 979 . .	36	22.6	24.8	25.9	35.5	36.5	37.7	38.9	39.9	49.5	50.7	52.6	56 37.69	0.04	3.11	0 56 40.84	3.18
	Weisse 1002 . .	37	41.0	43.2	44.4	54.0	55.1	56.2	57.3	58.4	8.0	9.0	11.1	57 56.15	0.04	3.11	0 57 59.30	3.19
	O. Arg. S. 644 .	38	0.6	3.0	4.3	15.2	16.3	17.7	18.9	20.2	31.4	32.5	34.7	1 17.71	0.15	3.11	1 1 20.97	3.09
	Weisse 42 . . .	39	23.5	25.8	26.9	36.8	37.9	39.0	40.1	41.2	51.0	52.1	54.3	4 38.96	0.01	3.11	1 4 42.08	3.15
	O. Arg. S. 704 .	40	41.5	43.8	45.1	55.9	56.9	58.2	59.5	0.8	11.5	12.7	14.5	7 58.22	0.14	3.11	1 8 1.47	3.09
	41 Ceti	41	48.9	51.0	52.2	2.0	3.1	4.2	5.4	6.4	16.2	17.3	19.3	11 4.18	0.07	3.11	1 11 7.36	3.11
	Weisse 201 . .	42	36.0	38.1	39.3	49.3	50.1	51.3	52.5	53.6	3.4	4.6	6.7	13 51.35	+ 0.01	3.12	1 13 54.48	+ 3.14
	Polaris . . .	43	. .	. . .	. .	. .	. .	. .	. .	. .	6.0	51.0	14.0	21 3.67	− 9 12.29	3.12	. . . . .	− 36.77
	Weisse 414 . .	44	58.4	0.5	1.8	11.4	12.5	13.7	14.8	15.9	25.7	26.8	28.8	25 13.66	+ 0.02	3.12	1 25 16.80	+ 3.13
	Lacaille 451 . .	45	40.0	42.3	43.5	54.6	55.7	57.0	58.4	59.6	10.7	11.9	14.2	27 57.08	0.16	3.12	1 28 0.36	2.72
	Weisse 540 . .	46	51.8	53.9	55.0	4.5	5.6	6.8	7.9	9.0	18.7	19.7	21.8	32 6.79	0.04	3.12	1 32 9.95	3.10
	Weisse 601 . .	47	2.6	4.8	5.9	. .	. .	. .	. .	. .	29.6	30.6	32.8	34 17.72	0.04	3.12	1 34 20.88	3.10
	τ Ceti	48	40.0	42.3	43.5	53.5	54.5	55.8	56.9	58.1	8.2	9.2	11.5	37 55.77	0.10	3.12	1 37 58.99	2.62
	* + 7° 3′ . . .	49	23.5	25.7	26.8	36.4	37.6	38.8	40.0	41.1	50.7	51.8	53.8	41 38.75	0.03	3.12	1 41 41.90	3.10
	O. Arg. S. 1116 .	50	52.8	55.0	56.3	6.9	7.8	9.2	10.5	11.7	22.2	23.3	25.4	44 9.20	+ 0.13	+ 3.12	1 44 12.45	+ 2.75

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Nov. 6, 23.4	+ 3.09	+ 0.014	− 0.17	+ 0.05

15. Preceded by a smaller star.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	Mean.	Inst.	Clock.		
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868. Nov. 6 Y.	Weisse 843	1	29.8	31.9	33.1	42.8	43.8	45.0	46.1	47.1	56.6	57.7	59.9	47 44.89	+ 0.06	+ 3.12	1 47 48.07	+ 3.04
	O. Arg. S. 1189	2	41.4	43.6	44.7	54.9	55.9	57.1	58.5	59.5	9.7	10.8	12.9	50 57.18	0.11	3.12	1 51 0.41	2.83
	B. A. C. 619	3	35.6	38.2	39.8	. .	54.4	55.7	57.1	. .	11.4	12.6	15.4	53 55.58	0.22	3.13	1 53 58.93	2.22
	O. Arg. S. 1261	4	35.6	37.8	39.0	. .	50.4	51.7	53.2	. .	4.7	5.9	8.0	56 51.81	0.13	3.13	1 56 55.07	2.73
	Weisse 1071	5	23.0	25.1	26.2	36.0	36.9	38.1	39.4	40.4	50.1	51.2	53.3	0 38.15	0.03	3.13	2 0 41.31	3.09
	Weisse 1080	6	4.8	7.0	8.1	17.8	18.9	20.0	21.1	22.3	31.9	33.0	35.1	1 20.00	+ 0.03	3.13	2 1 23.16	3.09
	Lalande 4238	7	12.0	14.2	15.5	25.6	26.7	27.9	29.1	30.3	40.4	41.6	43.7	10 27.91	0.00	3.13	2 10 31.04	3.14
	* + 37° 6′	8	. .	. .	. .	19.3	20.5	22.1	23.6	24.9	36.9	38.2	40.9	14 28.30	− 6.31	3.13	2 14 25.12	3.16
	O. Arg. S. 1554	9	35.7	37.9	39.1	49.7	50.8	52.1	53.4	54.5	5.0	6.1	8.6	19 52.08	+ 0.14	3.13	2 19 55.35	2.57
	Lalande 4667	10	31.4	34.1	35.4	47.4	48.8	50.4	51.8	53.3	5.4	6.4	9.0	24 50.31	− 0.07	3.13	2 24 53.37	3.21
	Weisse (2) 642	11	13.8	16.6	17.8	29.8	31.0	32.6	33.9	35.2	47.4	48.6	51.2	27 32.54	0.07	3.13	2 27 35.60	3.22
	ν Arietis	12	. .	6.2	7.4	17.8	18.9	20.1	21.4	22.4	32.7	33.8	. .	31 20.08	− 0.01	3.13	2 31 23.20	3.19
	γ Ceti	13	. .	14.7	15.9	25.5	26.5	27.7	29.0	30.1	39.7	40.8	. .	36 27.77	+ 0.04	+ 3.14	2 36 30.95	3.00
7	Lalande 220	14	37.3	38.6	40.4	41.9	44.6	. .	58.3	1.3	2.8	4.5	6.0	10 21.57	− 0.50	−27.39	0 9 53.68	2.86
	* + 35° 53′	15	4.0	6.6	7.8	19.8	21.0	22.5	23.8	25.2	36.9	38.2	40.7	10 22.41	− 0.07	27.39	0 9 54.95	2.86
	Weisse 245	16	19.4	21.5	22.6	32.3	33.3	34.5	35.7	36.7	46.5	47.5	49.5	15 34.50	+ 0.03	27.39	0 15 7.14	3.30
	Lalande 509	17	52.0	54.5	55.8	7.7	8.9	10.5	11.8	13.2	25.2	26.5	29.0	19 10.46	− 0.07	27.39	0 18 43.00	2.86
	48 Piscium	18	36.1	38.2	39.5	49.3	50.4	51.6	52.8	53.9	4.0	5.1	7.2	21 51.65	0.00	27.39	0 21 24.26	3.19
	* + 15° 16′	19	10.6	12.8	14.0	24.0	25.1	26.3	27.5	28.7	38.4	39.6	41.8	24 26.25	0.00	27.39	0 23 58.86	3.19
	B. A. C. 122	20	59.2	1.4	2.6	12.6	13.6	14.9	16.0	17.1	27.0	28.2	30.2	25 14.80	0.00	27.39	0 24 47.41	3.19
	Lalande 863	21	43.0	45.6	47.0	58.9	0.2	1.7	3.2	4.4	16.2	17.6	20.2	29 1.64	0.07	27.39	0 28 34.18	2.88
	Lalande 975	22	50.0	52.6	54.0	5.9	7.1	8.6	9.9	11.2	23.1	24.7	27.0	32 8.55	0.07	27.39	0 31 41.09	2.88
	23 Cassiopeæ	23	41.3	48.7	52.9	28.0	31.6	35.8	40.6	44.5	19.4	23.2	30.7	39 36.06	− 0.49	27.39	0 39 8.18	0.04
	ε Piscium	24	20.9	23.0	24.1	33.8	34.9	36.1	37.3	38.4	47.9	49.0	51.1	56 36.05	+ 0.03	27.38	. . . . .	3.13
	28 Ceti	†25	42.6	44.7	45.8	. .	. .	. .	. .	. .	10.0	11.0	12.9	59 57.83	+ 0.08	27.38	0 59 30.53	3.16
	η Ceti	26	. .	. .	. .	39.0	40.2	42.4	57.8	0.2	1.6	2.9	4.1	2 53.52	− 26.41	27.38	1 1 59.73	3.15
	Weisse 65	27	24.9	27.2	28.3	38.0	39.2	40.4	41.5	42.7	52.3	53.5	55.5	6 40.32	+ 0.02	27.38	1 6 12.96	3.15
	Polaris	28	. .	. .	. .	. .	38.0	27.0	16.0	. .	. .	. .	. .	12 27.00	− 5.62	27.38		
	Weisse 280	29	21.4	23.6	24.7	34.4	35.3	36.5	37.7	38.8	48.4	49.4	51.5	18 36.52	+ 0.06	27.38	1 18 9.20	3.11
	η Piscium	30	. .	53.7	54.8	56.0	57.2	58.3	27.2	29.7	31.1	32.4	33.7	25 13.41	− 17.39	27.38	. . . . .	3.13
10	λ Aquarii	31	37.1	39.3	40.4	50.1	51.1	52.4	53.6	54.6	4.4	5.5	7.6	45 52.37	+ 0.08	6.60	22 . . .	3.97
	Weisse 1026	32	. .	2.9	4.0	13.7	14.7	15.9	17.1	18.2	27.8	28.9	. .	50 15.91	+ 0.05	6.60	22 50 9.36	3.77
	82 Aquarii	33	. .	. .	. .	2.0	3.1	5.2	20.6	23.0	24.2	25.5	26.8	56 16.30	− 26.15	6.60	22 55 43.55	3.86
	o Cephei	34	44.6	50.2	53.1	18.0	20.8	24.0	27.1	29.6	54.7	57.8	2.9	13 23.89	0.23	6.58	23 13 17.08	0.65
	67 Pegasi	35	14.9	17.4	18.9	30.1	31.3	32.8	34.2	35.3	46.7	48.0	50.4	18 32.73	− 0.03	6.57	23 18 26.13	3.01
	B. A. C. 8175	36	6.3	8.5	9.7	19.5	20.6	21.8	23.0	24.1	34.0	35.1	37.2	21 21.80	+ 0.09	6.57	23 21 15.32	3.77
	14 Andromedæ	37	38.7	41.4	42.9	55.0	56.3	57.9	59.3	0.8	12.9	14.3	17.1	24 57.87	− 0.06	6.56	23 24 51.25	2.80
	Weisse (2) 658	38	47.0	49.6	50.8	2.6	3.9	5.4	6.9	8.1	20.0	21.3	23.7	31 5.39	0.05	6.56	23 30 58.78	2.91
	Weisse (2) 734	39	56.2	58.7	0.1	12.0	13.2	14.8	16.2	17.6	29.4	30.8	33.3	34 14.75	0.05	6.56	23 34 8.14	2.88
	B. A. C. 8280	40	7.8	11.7	13.8	32.8	34.9	37.1	39.4	41.4	0.1	2.3	6.4	42 57.06	− 0.15	6.55	23 42 50.36	1.75
	ω Piscium	41	26.1	28.2	29.5	39.0	40.1	41.4	42.6	43.5	53.2	54.2	56.4	52 41.29	+ 0.04	6.54	. . . . .	3.41
	30 Piscium	42	5.2	7.4	8.5	18.2	19.2	20.5	21.6	22.7	32.5	33.4	35.5	55 20.43	0.07	6.54	23 55 13.96	3.50
	33 Piscium	43	28.6	30.8	32.0	41.6	42.6	43.7	44.9	46.0	55.7	56.8	58.9	58 43.78	0.07	6.54	23 58 37.31	3.48
	B. A. C. 17	44	27.5	29.5	30.6	40.3	41.3	42.5	43.7	44.8	54.5	55.6	57.6	3 42.54	0.07	6.53	0 3 36.08	3.45
	Lalande 181	†45	2.9	5.6	7.0	19.0	20.2	21.7	23.3	24.6	. .	. .	. .	8 15.54	6.21	6.53	0 8 15.22	2.85
	49 Piscium	46	49.8	51.8	53.3	3.1	4.2	5.6	6.7	7.9	. .	. .	. .	24 0.30	5.17	6.51	0 23 58.96	+ 3.21
	Polaris	47	. .	17.0	16.0	. .	. .	. .	. .	. .	. .	. .	. .	48 46.50	23 12.76	6.49	. . . . .	− 35.09
	ε Piscium	48	0.0	2.1	3.3	13.0	14.1	15.2	16.4	17.5	27.0	28.2	30.3	56 15.19	0.04	6.48	. . . . .	+ 3.14
13	ξ Aquarii	49	36.9	39.0	40.1	49.8	50.8	52.0	53.3	54.4	3.9	5.0	7.0	30 52.02	0.05	6.82	21 30 45.25	4.50
	* + 36° 28′	50	44.8	47.5	48.8	0.8	2.0	3.4	4.9	6.2	18.2	19.5	22.1	44 3.47	+ 0.07	− 6.82	21 43 56.72	+ 3.11

25. Cloudy.
45. Cloudy.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Nov. 7, 1.2	− 27.38	+ 0.014	− 0.19	+ 0.05
10, 23.9	− 6.54	+ 0.052	− 0.15	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 13	* + 38° 20'	1	. .	24.0	26.3	37.7	39.0	40.5	42.0	43.3	55.6	57.0	. .	46 40.60	+ 0.07	− 6.82	21 46 33.85	+ 3.03
Y.	* + 38° 18'	2	. .	9.9	11.7	13.5	16.7	. .	32.6	35.7	37.3	38.8	. .	46 54.52	− 0.37	6.82	21 46 47.33	3.03
	Lacaille 9006	3	12.8	15.8	17.3	29.9	31.1	32.4	33.8	35.2	47.8	49.2	52.2	56 32.50	+ 0.07	6.82	21 56 25.75	5.20
	* − 23° 10'	4	. .	. .	. .	45.0	46.1	47.4	48.8	49.8	0.5	1.6	3.7	0 52.86	− 5.37	6.82	22 0 40.67	4.65
	Piazzi 33	†5	51.1	53.3	54.5	4.5	5.5	6.8	8.0	9.1	19.1	20.2	22.2	8 6.75	+ 0.05	6.83	22 7 59.97	3.65
	* + 16° 32'	6	29.4	30.6	32.0	33.3	. .	. .	. .	40.8	42.1	43.3	44.6	8 7.01	− 0.08	6.83	22 8 0.15	3.65
	32 Pegasi	†7	5.7	8.1	9.4	20.0	21.3	22.7	24.1	25.2	36.0	37.3	39.6	15 22.67	+ 0.06	6.83	22 15 15.90	3.32
	* + 38° 33'	8	. .	. .	. .	32.3	33.4	36.1	55.7	58.6	0.4	2.0	3 6	18 50.26	− 33.19	6.83	22 18 10.24	2.94
	Lalande 43871	9	. .	. .	. .	24.4	25.6	27.3	28.8	30.2	. .	. .	. .	21 27.26	+ 0.07	6.83	22 21 20.50	2.91
	* − 28° 9'	10	. .	. .	. .	30.5	31.6	32.9	34.3	35.5	. .	. .	. .	26 32.96	0.06	6.83	22 26 26.19	4.53
	* − 28° 13'	11	51.4	54.0	55.4	6.2	7.4	8.7	10.0	11.2	22.0	23.3	25.6	27 8.65	0.06	6.83	22 27 1.88	4.53
	* − 28° 58'	12	20.8	23.2	24.5	35.4	36.5	37.8	39.3	40.6	51.5	52.8	55.1	31 37.95	0.06	6.83	22 31 31.18	4.50
	* − 21° 39'	13	21.1	23.3	24.5	34.8	35.8	37.1	38.4	39.6	49.8	51.1	53.3	35 37.16	0.05	6.83	22 35 30.38	4.31
	* − 21° 33'	14	2.3	4.5	5.7	16.1	17.3	18.6	19.8	20.9	31.4	32.6	34.7	38 18.54	0.05	6.83	22 38 11.76	4.22
	* − 14° 17'	15	20.9	22.9	24.4	34.6	35.5	36.7	37.7	38.9	49.0	50.2	52.2	42 36.64	0.05	6.83	22 42 29.86	4.11
	ι Cephei	16	. .	38.0	40.9	4.1	6.3	9.2	12.2	14.5	38.0	40.6	. .	45 9.31	+ 0.12	6.83	22 45 2.60	0.95
	Weisse 1087 (1st *)	17	24.2	25.4	26.8	28.1	30.3	. .	30.5	32.9	34.1	35.4	36.7	53 0.44	− 0.30	6.83	22 52 53.31	3.[illegible]
	Weisse 1087 (2d *)	18	45.6	47.8	49.0	58.5	59.5	0.6	1.9	3.0	12.6	13.7	15.7	53 0.72	+ 0.05	6.83	22 52 53.94	3.[illegible]
	* + 38° 11'	19	8.2	10.7	12.3	. .	. .	. .	. .	. .	42.3	43.9	46.5	58 27.32	0.07	6.83	22 58 20.56	2.[illegible]
	B. A. C. 8088	20	27.6	30.4	31.8	44.8	46.2	47.7	49.4	50.9	3.6	5.2	8.0	7 47.78	0.07	6.84	23 7 41.01	4.34
	Lacaille 9424	21	21.6	24.4	26.0	38.8	40.1	41.9	43.4	44.7	57.9	59.2	1.7	9 41.79	0.07	6.84	23 9 35.02	4.32
	Weisse 242	22	51.6	53.8	54.9	4.5	5.5	6.7	7.8	8.9	18.5	19.6	21.7	13 6.68	+ 0.05	6.84	23 12 59.89	3.72
	Weisse 246	23	. .	. .	. .	37.5	38.7	39.6	55.9	58.3	59.6	0.9	2.2	13 51.59	− 25.98	6.84	23 13 18.77	3.72
	Lalande 45892	24	56.8	59.2	0.2	10.1	11.2	12.6	13.7	14.9	24.9	26.0	28.0	20 12.51	+ 0.05	6.84	23 20 5.72	3.80
	O. Arg. S. 22851	25	56.5	58.8	59.9	9.9	11.0	12.3	13.6	14.6	24.5	25.7	27.8	21 12.24	0.05	6.84	23 21 5.45	3.55
	Lacaille 9507	26	32.5	35.5	37.0	49.9	51.3	52.9	54.4	55.9	9 2	10.6	13.5	24 52.97	0.07	6.84	23 24 46.20	4.11
	ι Piscium	27	4.0	6.2	7.4	17.0	17.9	19.1	20.3	21.4	31.0	32.1	34.2	33 19.15	0.05	6.84	23 33 12.36	3.55
	* + 36° 12'	28	30.3	32.9	34.3	46.2	47.4	48.9	50.4	51.8	3.6	4.9	7.5	36 48.93	0.07	6.84	23 36 42.16	2.91
	Lacaille 9609	†29	48.2	51.0	52.6	5.6	7.0	8.8	10.3	11.7	25.0	26.2	29.1	43 8.68	0.07	6.84	23 43 1.91	3.80
	Lalande 46873	30	14.0	16.7	18.0	30.2	31.5	32.9	34.4	35.8	47.9	49.2	51.8	48 32.95	+ 0.07	6.84	23 48 26.18	2.87
	Lacaille 9673	31	. .	. .	. .	26.6	27.8	29.5	31.1	32.5	45.8	47.4	50.2	52 36.36	− 6.73	6.84	23 52 22.79	3.73
	B. A. C. 8351	32	10.8	13.0	14.2	23.7	24.8	25.9	27.1	28.2	37.8	38.9	40.8	55 25.03	+ 0.05	6.84	23 55 19.14	3.59
	Lacaille 9715	33	24.4	27.1	28.5	41.0	42.4	44.0	45.5	46.9	59.3	0.6	3.2	58 43.90	0.07	6.85	23 58 37.12	3.65
	5 Ceti	34	21.0	23.1	24.3	33.8	34.8	36.0	37.2	38.3	47.8	48.9	51.0	1 36.02	0.05	6.85	0 1 29.22	3.47
	Lacaille 9753	35	55.0	57.5	59.0	10.8	12.1	13.6	15.0	16.2	28.0	29.6	32.0	4 13.53	+ 0.07	6.85	0 4 6.75	3.57
	Lacaille 4	36	. .	. .	. .	36.8	38.2	40.0	41.6	43.0	56.2	57.6	0.5	6 46.74	− 6.82	6.85	0 6 33.07	3.53
	* − 32° 46'	37	. .	. .	. .	48.7	50.0	51.4	52.8	54.1	5.5	6.7	9.2	8 57.30	− 5.86	6.85	0 8 44.59	3.53
	Weisse 245	38	58.9	1.0	2.1	11.9	12.8	14.0	15.1	16.1	25.9	27.0	29.1	15 13.99	+ 0.05	6.85	0 15 7.19	3.35
	* + 7° 3'	39	59.2	1.2	2.4	12.0	13.1	14.3	15.5	16.6	26.4	27.4	29.5	18 14.33	0.05	6.85	0 18 7.53	3.32
	Lacaille 90	40	30.2	32.7	33.9	44.5	45.6	47.0	48.2	49.5	0.2	1.4	3.8	20 47.00	0.06	6.85	0 20 40.21	3.42
	Weisse 434	41	22.0	24.1	25.2	34.8	35.8	37.0	38.2	39.3	48.9	50.0	52.0	26 37.03	0.05	6.85	0 26 30.23	3.35
	53 Piscium	42	49.0	51.4	52.5	2.4	3.4	4.7	5.9	7.0	16.9	18.0	20.1	30 4.66	0.05	6.85	0 29 57.86	3.22
	Weisse 832	43	. .	24.9	26.0	36.9	38.0	39.3	40.7	41.8	52.5	53.8	. .	32 39.32	0.06	6.85	0 32 32.53	3.16
	Lacaille 216	44	3.2	5.9	7.4	19.5	20.8	22.3	23.7	24.9	37.1	38.7	41.4	41 22.26	0.07	6.85	0 41 15.48	3.14
	Santini 46	45	25.3	27.4	28.5	38.0	39.0	40.3	41.5	42.5	52.0	53.2	55.3	44 40.27	0.05	6.85	0 44 33.47	3.25
	Weisse 801	46	32.6	34.6	35.8	45.5	46.5	47.8	48.9	50.1	59.8	0.9	2.9	46 47.76	0.05	6.85	0 46 40.96	3.22
	Weisse 912	47	0.1	2.2	3.4	12.8	13.9	15.1	16.4	17.3	26.9	28.0	30.0	53 15.10	+ 0.05	6.86	0 53 8.29	3.22
	B. A. C. 284	48	. .	. .	. .	31.2	32.6	34.0	35.5	36.9	49.4	50.8	53.1	55 40.44	− 6.32	6.86	0 55 27.26	2.96
	Weisse 1002	49	51.1	53.0	54.3	3.7	4.7	6.0	7.3	8.3	17.7	18.8	21.1	58 6.00	+ 0.05	6.86	0 57 59.19	3.21
	ψ^2 Piscium	50	46.6	48.9	50.0	0.3	1.3	2.5	3.7	4.9	15.3	16.4	18.5	1 2.58	+ 0.05	− 6.86	1 0 55.77	+ 3.13

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Nov. 13, 0.4	− 6.85	− 0.011	0.00	+ 0.05

5. Southward,
7. Only star which could be observed.
29. Preceded by a small star to northward.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.											CORRECTIONS.			Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 13	45 Andromedæ	1	37.6	40.0	41.4	53.4	54.7	56.2	57.7	59.0	10.9	12.3	14.8	3 56.18	+ 0.07	− 6.86	1 3 49.39	+ 2.90
Y.	Weisse 72	2	. .	. .	. .	58.5	59.5	1.7	16.9	19.4	20.6	21.9	23.0	7 12.69	− 25.98	6.86	1 6 39.85	3.17
	39 Ceti	3	49.0	51.0	52.2	1.7	2.7	3.9	5.2	6.3	15.8	16.9	19.0	10 3.97	+ 0.05	6.86	1 9 57.16	+ 3.15
	Polaris	4	. .	. .	. .	. .	. .	57.0	45.0	29.0	. .	. .	. .	12 43.67	− 45.01	6.86		− 34.09
	* − 1° 11′	5	. .	. .	. .	. .	. .	. .	44.4	46.8	48.0	49.3	50.6	15 47.82	33.61	6.86	1 15 7.35	+ 3.14
	43 Ceti	6	. .	. .	. .	11.4	12.6	14.6	29.9	32.4	33.6	34.8	36.0	16 25.66	25.97	6.86	1 15 52.83	3.14
	Weisse 288	7	. .	. .	. .	. .	. .	. .	1.7	4.3	5.4	6.7	7.9	19 5.20	− 33.83	6.86	1 18 24.51	3.11
	B. A. C. 440	8	22.5	24.6	25.7	35.4	36.5	37.7	38.8	39.9	49.5	50.7	52.8	21 37.65	+ 0.05	6.86	1 21 30.84	3.14
	Weisse 348	9	27.0	29.3	30.3	. .	40.9	42.2	43.4	. .	54.0	55.3	57.4	21 42.20	0.05	6.86	1 21 35.39	3.14
	η Piscium	10	19.7	22.2	23.3	33.1	34.2	35.5	36.6	37.8	47.8	48.9	51.0	24 35.46	0.05	6.86	1 24 28.65	3.14
	Weisse (2) 575	11	50.6	52.7	54.0	3.9	4.8	6.1	7.4	8.5	18.4	19.5	21.7	27 6.15	+ 0.05	6.86	1 26 59.34	3.13
	* + 15° 5′	12	. .	. .	. .	. .	. .	. .	46.2	48.6	49.8	51.2	52.4	27 49.64	− 34.80	6.86	1 27 7.98	3.13
	Lalande 3025	13	12.2	14.9	16.3	28.5	29.8	31.4	32.9	34.1	46.5	47.8	50.5	32 31.35	+ 0.07	6.86	1 32 24.56	2.99
	* − 36° 46′	14	. .	. .	. .	1.6	3.2	5.4	24.7	27.8	29.3	30.8	31.1	40 19.24	− 32.39	6.86	1 39 39.99	2.54
	ι Cassiopeæ	15	35.4	40.2	42.4	3.7	5.8	8.4	11.1	13.5	34.6	37.1	41.7	45 8.54	+ 0.11	6.86	1 45 1.79	2.39
	B. A. C. 579	16	58.4	1.0	2.4	14.2	15.4	17.0	18.5	19.9	31.9	33.2	34.7	48 16.96	0.07	6.87	1 48 10.16	3.06
	O. Arg. S. 1189	17	51.3	53.6	54.8	4.9	5.9	7.2	8.4	9.5	19.8	20.9	22.8	51 7.19	0.05	6.87	1 51 0.37	2.84
	Weisse 973	18	23.7	25.9	27.0	36.8	37.8	39.0	40.2	41.5	51.3	52.3	54.4	55 39.08	0.05	6.87	1 55 32.26	3.10
	Weisse 1038	19	7.3	9.4	10.5	20.2	21.3	22.5	23.6	24.7	34.5	35.5	37.6	59 22.46	0.05	6.87	1 59 15.64	3.08
	Lalande 3979	20	23.9	26.2	27.3	37.4	38.5	39.8	41.0	42.1	52.3	53.5	55.6	2 39.78	0.05	6.87	2 2 32.96	2.78
	Weisse 72	21	17.7	19.8	20.9	30.4	31.5	32.7	33.9	35.0	44.5	45.6	47.7	6 32.70	0.05	6.87	2 6 25.88	3.04
	γ Trianguli	22	21.2	23.7	25.0	36.5	37.7	39.2	40.7	42.0	53.4	54.7	57.0	9 39.19	+ 0.06	6.87	2 9 32.38	3.13
	* − 4° 44′	23	. .	. .	. .	48.3	49.2	50.4	51.6	52.7	2.4	3.5	5.5	12 55.45	− 4.94	6.87	2 12 43.64	3.03
	Lalande 4387	24	54.5	57.2	58.7	11.0	12.4	14.0	15.5	16.8	29.0	30.5	33.1	16 13.88	+ 0.07	6.87	2 16 7.08	3.13
	O. Arg. S. 1535	25	. .	. .	. .	34.2	35.3	37.5	53.5	56.2	57.4	58.7	0.1	18 49.11	− 27.42	6.87	2 18 14.82	2.69
	Weisse 363	26	38.0	40.3	41.4	51.0	52.1	53.3	54.5	55.6	5.3	6.4	8.5	22 53.31	+ 0.05	6.87	2 22 46.49	3.05
	* − 33° 10′	27	25.9	28.5	29.7	41.1	42.2	43.8	45.1	46.4	58.0	59.3	1.6	26 43.78	+ 0.06	6.87	2 26 36.97	2.26
	Weisse 475	28	. .	. .	. .	20.0	21.1	23.3	38.5	41.0	42.3	43.5	44.7	29 34.30	− 26.11	6.87	2 29 1.32	2.87
	B. A. C. 817	29	13.1	15.2	16.3	26.0	27.1	28.3	29.4	30.5	40.0	41.2	43.3	33 28.22	+ 0.05	6.87	2 33 21.40	3.02
	Weisse 580	30	5.5	7.7	8.9	18.6	19.6	20.8	22.0	23.0	32.6	33.8	35.7	34 20.75	0.05	6.87	2 34 13.93	3.02
	Lalande 5115	31	19.0	21.9	23.3	35.8	37.0	38.8	40.1	41.5	53.7	54.9	57.7	39 38.52	0.07	6.87	2 39 31.72	3.22
	* − 34° 19′	32	55.8	58.3	59.5	11.2	12.4	13.8	15.2	16.6	28.3	29.6	32.0	43 13.88	0.06	6.88	2 43 7.06	2.00
	Weisse 789	33	36.2	38.7	39.9	49.9	50.9	52.3	53.5	54.4	4.4	5.3	7.2	46 52.06	+ 0.05	6.88	2 46 45.23	3.10
	* + 38° 6′	34	. .	. .	. .	48.9	50.1	51.7	53.1	54.3	6.4	8.0	10.7	49 57.90	− 6.25	6.88	2 49 44.77	3.26
	Lacaille 951	35	30.9	33.5	34.9	46.6	47.8	49.3	50.7	52.0	3.6	5.0	7.6	53 49.26	+ 0.06	6.88	2 53 42.44	2.02
	Lalande 5682	36	1.6	4.4	5.6	17.8	19.2	20.7	22.3	23.6	35.6	36.0	39.8	58 20.68	0.07	6.88	2 58 13.87	3.30
	* + 13° 46′	37	45.6	47.7	48.9	58.6	59.7	0.9	2.3	3.3	13.2	14.3	16.3	1 0.98	0.05	6.88	3 0 54.15	3.21
	Weisse 20	38	21.4	23.4	24.5	34.4	35.4	36.6	37.8	38.8	48.8	49.8	52.0	3 36.63	0.05	6.88	3 3 29.80	3.08
	ζ Arietis	39	13.5	15.8	16.8	27.3	28.3	29.5	30.8	32.0	42.1	43.4	45.5	7 29.55	0.05	6.88	3 7 22.72	3.20
	* + 14° 37′	40	16.7	18.8	20.2	29.8	31.0	32.2	33.4	34.6	44.6	45.6	47.7	10 32.24	0.05	6.88	3 10 25.41	3.13
	B. A. C. 1039	41	42.8	45.2	46.2	56.9	57.9	59.3	0.6	1.7	12.3	13.5	15.8	13 59.29	0.05	6.88	3 13 52.46	2.29
14	η Aquarii	42	28.2	30.3	31.5	41.0	42.1	43.3	44.5	45.5	55.2	56.3	58.3	28 43.29	0.05	6.76	22 28 36.58	3.96
	* + 39° 1′	43	50.8	53.4	54.9	7.3	8.7	10.2	11.7	13.0	25.4	26.8	29.5	44 10.15	0.06	6.76	22 44 3.45	2.89
	* + 39° 2′	44	36.2	38.7	40.3	52.5	53.8	55.4	57.0	58.4	10.8	12.0	14.7	45 55.44	+ 0.06	6.76	22 45 48.74	2.89
	Lacaille 9313	45	. .	. .	. .	33.5	34.7	36.3	37.7	39.2	51.4	52.8	55.4	50 42.62	− 6.30	6.76	22 50 29.56	4.52
	Lacaille 9325	46	. .	. .	. .	2.0	3.3	4.9	6.6	7.9	21.0	22.3	25.0	53 11.62	− 6.61	6.76	22 52 58.25	4.56
	Weisse 1150, (1st *)	47	. .	. .	. .	34.7	35.8	37.0	38.2	39.[illegible]	. .	. .	. .	55 37.00	+ 0.05	6.76	22 55 30.29	3.99
	Weisse 1150, (2d *)	48	. .	. .	. .	49.5	50.6	52.7	8.3	10.8	12.0	13.3	14.6	56 3.98	− 26.54	6.76	22 55 30.68	3.99
	Weisse 1221	49	30.3	32.5	33.5	43.1	44.2	45.4	46.6	47.7	57.3	58.4	0.6	58 45.42	+ 0.05	6.76	22 58 38.71	3.90
	58 Pegasi	50	16.7	18.8	19.9	29.5	30.5	31.7	32.9	34.0	43.7	44.8	46.8	3 31.75	+ 0.05	− 6.76	23 3 25.04	+ 3.59

39. Unsteady.
47. Southward.

November 13, 14h. Image east 0.25 r. Clamp east.
Image east 0.08. Clamp west.

After slight adjustment for inclination—

Image east 0.12. Clamp west.
Image east 0.30. Clamp east.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
Nov. 14, 0.9	− 6.75	+ 0.004	− 0.01	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868.																		
Nov. 14	B. A. C. 8088 . .	1	27.3	30.1	31.7	44.5	45.8	47.4	48.9	50.3	3.4	4.7	7.6	7 47.43	+ 0.07	− 6.76	23 7 40.74	+ 4.36
Y.	Lacaille 9424 . .	2	21.4	24.1	25.5	38.4	39.8	41.5	42.9	44.4	57.2	58.6	1.5	9 41.39	0.07	6.76	23 9 34.70	4.33
	O. Arg. S. 22779 .	3	14.0	16.4	17.7	28.3	29.3	30.5	32.0	33.2	43.8	45.0	47.3	14 30.68	0.06	6.76	23 14 23.98	4.04
	Weisse 342 . .	4	39.3	41.5	42.7	52.5	53.5	54.7	56.0	57.1	6.9	8.0	10.1	17 54.75	0.05	6.76	23 17 48.04	3.40
	13 Andromedæ . .	5	35.4	38.1	39.7	52.6	54.0	55.6	57.3	58.7	11.7	13.1	15.9	20 55.65	0.06	6.76	23 20 48.95	2.70
	Weisse 476 . .	6	. .	. .	. .	44.2	45.2	46.5	47.7	48.8	. .	. .	. .	24 46.48	0.05	6.76	23 24 39.77	3.70
	A¹ Aquarii . . .	7	36.6	38.9	40.2	50.4	51.4	52.6	53.8	55.0	5.2	6.3	8.5	34 52.63	0.06	6.76	23 34 45.93	3.79
	τ Cassiopeæ . . .	8	19.2	23.1	25.3	43.3	45.2	47.5	49.7	51.7	9.7	12.0	15.6	40 47.48	0.08	6.75	23 40 40.81	1.05
	* + 28° 54′ . .	9	58.8	1.4	2.6	13.6	14.7	16.0	17.5	18.7	29.8	30.8	33.3	46 10.11	0.05	6.75	23 46 9.41	3.10
	Lalande 46873 .	10	. .	. .	. .	30.1	31.4	32.9	34.4	35.8	. .	. .	. .	48 32.92	0.06	6.75	23 48 26.23	2.89
	Weisse 1045 . .	11	31.4	33.6	34.7	44.5	45.5	46.6	47.8	48.9	58.4	59.5	1.6	51 46.59	+ 0.05	6.75	23 51 39.89	3.45
	O. Arg. S. 23181 .	12	. .	. .	. .	17.0	18.1	20.2	36.8	39.6	40.9	42.3	43.6	54 32.31	− 28.28	6.75	23 53 57.28	3.60
	B. A. C. 8372 . .	13	4.9	8.9	11.0	28.9	30.6	33.0	35.2	37.0	55.0	57.2	0.9	59 32.96	+ 0.08	6.75	23 59 26.29	2.03
	* + 4° 22′ . . .	14	. .	. .	. .	51.8	52.9	54.9	10.3	12.7	14.0	15.3	16.5	4 6 05	− 26.03	6.75	0 3 33.27	3.41
	* + 6° 8′ . . .	15	. .	52.7	53.7	54.8	56.0	57.1	25.4	27.8	29.0	30.3	31.6	5 11.84	− 16.87	6.75	0 4 48.22	3.39
	Weisse 124 . .	16	26.0	28.2	29.4	38.9	39.9	41.2	42.4	43.5	53.2	54.3	56.4	8 41.22	+ 0.05	6.75	0 8 34.52	3.47
	* − 6° 54′ . . .	17	36.9	38.2	39.6	40.8	43.0	. .	43.5	45.9	47.3	48.6	49.7	11 13.35	− 0.30	6.75	0 11 6.30	3.46
	* − 6° 56′ . . .	18	. .	0.3	1.4	11.0	12.0	13.3	14.4	15.5	25.3	26.2	. .	11 13.27	+ 0.05	6.75	0 11 6.57	3.45
	Weisse 236 . .	19	24.2	26.4	27.6	37.2	38.2	39.4	40.6	41.7	51.4	52.4	54.5	14 39.42	0.05	6.75	0 14 32.72	3.42
	O. Arg. S. 160 .	20	27.2	29.5	30.8	41.5	42.6	43.9	45.2	46.4	56.9	58.0	0.2	17 43.84	0.06	6.75	0 17 37.15	3.40
	Weisse 437 . .	21	. .	. .	. .	48.0	49.0	50.3	51.7	52.7	. .	. .	. .	26 50.34	0.05	6.75	0 26 43.64	3.36
	53 Piscium . . .	22	49.0	51.2	52.4	2.1	3.1	4.4	5.6	6.8	16.7	17.8	19.9	30 4.45	0.05	6.75	0 29 57.75	3.23
	Weisse 832 . .	23	. .	. .	. .	36.8	37.8	39.1	40.4	41.7	. .	. .	. .	32 39.16	+ 0.05	6.75	0 32 32.46	3.29
	* − 6° 21′ . .	24	. .	. .	. .	53.5	54.6	56.7	12.2	14.5	15.7	16.9	18.2	36 7.79	− 26.12	6.75	0 35 34.92	3.32
	Weisse 704 . .	25	14.4	16.5	17.6	27.4	28.5	29.6	30.8	32.4	41.6	42.6	44.7	41 29.61	+ 0.05	6.75	0 41 22.91	3.25
	Santini 46 . . .	26	24.9	27.0	28.2	37.8	38.9	40.0	41.3	42.2	51.9	52.9	55.0	44 40.01	0.05	6.75	0 44 33.31	3.26
	Weisse 802 . .	27	35.1	37.3	38.4	48.0	49.2	50.3	51.3	52.5	2.2	3.1	5.1	46 50.23	0.05	6.75	0 46 43.53	3.25
	* + 1° 47′ . . .	28	6.0	8.2	9.4	18.9	19.9	21.1	22.3	23.5	33.0	34.1	36.2	51 21.15	0.05	6.75	0 51 14.45	3.24
	* + 1° 55′ . . .	29	9.3	11.5	12.6	22.0	23.2	24.3	25.7	26.8	36.3	37.2	39.4	52 24.39	0.05	6.75	0 52 17.69	3.23
	Weisse 918 . .	30	13.0	15.2	16.3	25.9	26.9	28.0	29.2	30.2	40.0	41.0	43.1	53 28.07	+ 0.05	6.75	0 53 21.37	3.23
	ε Piscium . . .	31	. .	. .	. .	27.4	28.4	30.5	45.7	48.2	49.5	50.8	52.1	56 41.58	− 26.16	6.75	0 56 8.67	3.16
	Weisse 1048 . .	32	58.6	0.7	2.0	11.5	12.5	13.8	15.0	16.1	25.7	26.8	28.9	0 13.78	+ 0.05	6.75	1 0 7.08	3.21
	Radcliffe 371 . .	33	51.4	54.6	56.3	10.7	12.4	13.9	15.9	17.3	31.7	33.2	36.4	6 13.98	0.07	6.75	1 6 7.30	2.73
	39 Ceti	34	48.7	50.8	52.0	1.5	2.6	3.7	5.0	6.1	15.7	16.7	17.7	10 3.68	0.05	6.75	1 9 56.98	+ 3.17
	Polaris	35	. .	. .	. .	. .	6.0	57.0	45.0	. .	. .	. .	. .	11 56.00	2.16	6.75	. . . .	− 33.79
	Weisse 208 . .	36	. .	. .	. .	26.2	27.3	28.5	29.6	30.6	. .	. .	. .	14 28.44	0.05	6.75	1 14 21.74	+ 3.16
	Weisse 288 . .	37	16.0	18.1	19.3	28.9	29.8	30.9	32.3	33.4	43.0	44.2	46.1	18 31.09	0.05	6.75	1 18 24.39	3.12
	B. A. C. 439 . .	38	12.8	14.9	16.0	25.9	27.0	28.3	29.6	30.7	40.6	41.8	43.9	21 28.32	0.05	6.75	1 21 21.62	3.14
	B. A. C. 481 . .	39	3.2	5.3	6.5	16.2	17.2	18.3	19.4	20.6	30.3	31.3	33.4	29 18.34	0.05	6.75	1 29 11.64	3.07
	105 Piscium . . .	40	28.0	30.2	31.4	41.4	42.4	43.7	44.9	45.9	56.0	57.1	59.3	32 43.66	0.05	6.75	1 32 36.96	3.13
	B. A. C. 524 . .	41	. .	17.2	18.3	28.4	. .	30.5	. .	32.8	42.8	43.9	. .	35 30.56	+ 0.05	6.75	1 35 23.86	3.12
	ο Piscium . . .	42	. .	. .	. .	33.1	34.2	35.4	36.7	37.7	47.4	48.4	50.5	38 40.43	− 4.98	6.75	1 38 28.70	3.12
	1 Arietis, (1st *) .	43	45.3	47.5	48.7	. .	. .	. .	. .	. .	14.2	15.3	17.5	43 1.42	+ 0.05	6.75	1 42 54.72	3.12
	1 Arietis, (2d *) .	44	. .	. .	. .	59.0	0.1	1.4	2.7	3.8	. .	. .	. .	43 1.40	0.05	6.75	1 42 54.70	3.12
	B. A. C. 576 . .	45	2.0	4.7	6.0	18.0	19.2	20.8	22.1	23.4	35.5	36.9	39.4	47 20.73	0.06	6.75	1 47 14.04	3.05
	48 Cassiopeæ . .	46	39.8	45.9	48.9	17.6	20.4	24.1	27.6	30.7	59.2	2.3	8.4	51 24.08	0.05	6.75	1 51 17.38	1.91
	β Trianguli . . .	47	34.2	36.8	38.0	49.7	50.9	52.4	53.8	55.1	6.7	8.0	10.5	1 52.37	0.05	6.75	2 1 45.67	3.10
	Weisse (2) 147 .	48	8.3	11.0	12.6	24.8	26.0	27.7	29.1	30.5	42.8	44.0	46.9	7 27.61	0.06	6.75	2 7 20.92	3.10
	B. A. C. 718 . .	49	21.9	25.7	27.7	45.0	47.1	49.3	51.4	53.4	10.7	12.7	16.5	12 49.22	0.08	6.74	2 12 42.56	2.80
	ξ Arietis	50	39.4	41.5	42.7	52.5	53.4	54.6	55.7	56.9	6.7	7.8	9.9	17 54.65	+ 0.05	− 6.74	2 17 47.96	+ 3.07

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Nov. 14.0.9	− 6.75	+ 0.004	− 0.01	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 14	B. A. C. 750	1	0.7	2.8	4.0	13.7	14.7	15.9	17.0	18.2	28.0	29.0	31.1	19 15.92	+ 0.05	− 6.74	2 19 9.23	+ 3.07
Y.	26 Arietis	2	8.8	11.0	12.2	22.5	23.4	24.7	26.0	27.0	37.4	38.4	40.6	23 24.73	0.05	6.74	2 23 18.04	3.13
	Lalande 4761	3	40.5	43.2	44.6	56.5	57.8	59.2	0.7	2.0	14.0	15.4	18.1	27 59.27	0.06	6.74	2 27 52.59	3.18
	B. A. C. 810	4	51.9	54.0	55.1	4.9	5.9	7.1	8.3	9.3	19.2	20.3	22.3	32 7.12	0.05	6.74	2 32 0.43	3.06
	ν Ceti	5	22.6	24.8	25.8	35.5	36.6	37.8	38.9	39.9	49.6	50.7	52.8	36 37.73	0.05	6.74	2 36 31.04	2.96
	Weisse (2) 915	6	41.6	44.3	45.7	57.4	58.5	0.0	1.5	2.8	14.5	15.9	18.5	39 0.06	0.06	6.74	2 38 53.38	3.21
18	η Aquarii	7	24.7	26.7	27.8	37.5	38.6	39.8	40.9	42.0	51.6	52.6	54.8	28 39.73	0.05	3.28	22 28 36.50	4.02
	31 Cephei	8	45.3	52.8	56.6	29.4	33.1	37.0	40.8	44.5	17.3	20.9	27.6	32 36.85	0.01	3.28	22 32 33.58	0.24
	* − 21° 33′	9	41.9	44.3	45.5	55.9	57.1	58.3	59.5	0.6	10.9	12.1	14.4	39 58.23	+ 0.07	3.28	22 38 55.02	4.32
	τ¹ Aquarii	10	. .	. .	. .	59.6	0.7	2.9	18.6	21.0	22.4	23.6	25.0	41 14.22	− 26.84	3.28	22 40 44.10	4.20
	Lacaille 9283	11	56.5	58.8	0.0	10.5	11.7	12.9	14.2	15.5	26.0	27.2	29.4	44 12.97	+ 0.08	3.28	22 44 9.77	4.36
	Lacaille 9351	12	1.6	4.5	5.9	18.7	19.9	21.6	23.2	24.5	37.5	38.9	41.7	56 21.64	0.11	3.27	22 56 18.48	4.58
	Lacaille 9415	13	45.5	48.1	49.6	2.5	3.8	5.4	7.0	8.4	21.4	22.7	25.4	9 5.44	+ 0.11	3.27	23 9 2.28	4.41
	Lalande 45588	14	. .	. .	. .	. .	. .	. .	21.8	24.8	26.4	27.9	29.6	11 26.10	− 42.25	3.27	23 10 40.58	2.99
	* + 36° 48′	15	. .	. .	. .	. .	. .	. .	5.2	8.4	10.0	11.6	13.0	15 9.64	− 42.00	3.27	23 14 24.37	3.00
	* + 36° 56′	16	6.5	9.2	10.6	22.4	23.7	25.4	26.9	28.3	40.2	41.6	44.2	17 25.36	+ 0.02	3.27	23 17 22.11	3.00
	* − 34° 20′	17	22.8	25.4	26.6	38.3	39.6	41.1	42.6	43.7	55.4	56.6	59.1	20 41.02	0.10	3.27	23 20 37.85	4.15
	Weisse 476	18	28.0	30.1	31.3	40.8	41.8	43.0	44.2	45.3	55.0	56.0	58.1	24 43.05	0.05	3.27	23 24 39.83	3.75
	Lacaille 9542	19	37.6	40.6	41.8	54.6	56.1	58.0	59.6	1.1	14.0	15.4	18.2	31 57.91	0.12	3.27	23 31 54.76	4.10
	Weisse 705	20	48.4	50.7	51.8	1.3	2.3	3.6	4.8	5.8	15.5	16.6	18.8	35 3.60	+ 0.05	3.27	23 35 0.38	3.53
	* + 28° 55′	21	. .	. .	. .	10.1	11.3	12.7	14.0	15.2	26.2	27.5	29.8	46 18.35	− 5.66	3.27	23 46 9.42	3.15
	O. Arg. S. 23135	22	30.9	33.3	34.6	45.8	46.8	48.3	49.7	50.8	2.0	3.3	5.8	49 48.30	+ 0.09	3.27	23 49 45.12	3.78
	Weisse 1058	23	15.5	17.8	18.9	28.4	29.4	30.6	31.8	32.8	42.6	43.6	45.6	52 30.64	0.05	3.27	23 52 27.42	3.50
	Weisse 1110	24	. .	42.7	44.0	53.7	54.7	55.9	57.1	58.2	8.0	9.1	. .	54 55.93	0.05	3.27	23 54 52.71	3.48
	Lacaille 9715	25	20.8	23.5	25.0	37.5	38.7	40.4	41.8	43.2	55.7	57.0	59.6	58 40.29	0.11	3.27	23 58 37.13	3.72
	Lalande 47298	26	. .	45.1	46.5	58.6	59.8	1.3	2.9	4.1	16.0	17.2	. .	1 1.28	+ 0.02	3.27	0 0 58.03	2.97
	Weisse 28	27	. .	. .	. .	21.4	22.4	23.6	24.8	25.9	35.5	36.6	38.6	3 28.60	− 4.99	3.27	0 3 20.34	3.55
	Weisse 89	28	. .	. .	. .	18.8	19.8	21.3	22.6	23.5	33.1	34.2	36.5	6 26.22	− 4.96	3.27	0 6 17.99	3.41
	Weisse 124	29	22.7	24.9	25.9	35.6	36.6	37.8	39.0	40.1	49.8	50.9	53.0	8 37.85	+ 0.06	3.27	0 8 34.64	3.50
	* + 0° 13′	30	. .	. .	. .	32.7	33.8	35.9	51.4	53.6	54.8	56.0	57.2	11 46.92	− 25.96	3.27	0 11 17.69	3.44
	ι Sculptoris	31	41.6	43.7	45.2	56.2	57.5	58.8	59.9	1.2	12.5	13.7	16.0	14 58.75	+ 0.09	3.26	0 14 55.58	3.52
	B. A. C. 81	32	36.0	38.1	39.2	48.9	49.8	51.0	52.2	53.2	2.9	3.9	6.0	17 51.02	0.05	3.26	0 17 47.81	3.43
	O. Arg. S. 210	33	33.5	36.0	37.1	47.1	48.2	49.4	50.7	51.9	2.4	3.6	5.7	21 49.60	0.07	3.26	0 21 46.41	3.46
	Weisse 439	34	35.0	37.0	38.1	47.7	48.7	49.9	51.1	52.3	1.7	2.8	4.9	26 49.93	0.05	3.26	0 26 46.72	3.37
	Weisse 466	35	0.3	2.5	3.5	13.0	14.1	15.3	16.5	17.6	27.3	28.2	30.3	28 15.33	0.05	3.26	0 28 12.12	3.34
	55 Piscium	36	49.2	51.5	52.6	3.0	4.1	5.3	6.4	7.5	18.0	19.1	21.4	33 5.28	0.03	3.26	0 33 2.05	3.21
	β Ceti	37	47.7	50.0	51.1	1.2	2.3	3.7	4.8	6.0	16.0	17.1	19.2	37 3.55	0.07	3.26	0 37 0.36	3.35
	Groombridge 148	38	3.1	9.2	12.3	40.7	43.7	47.0	50.6	53.6	22.1	25.0	31.0	41 47.12	0.01	3.26	0 41 43.87	1.18
	Lalande 1444	39	30.4	33.3	34.6	46.9	48.2	49.7	51.2	52.5	4.7	6.0	8.8	45 49.66	0.02	3.26	0 45 46.42	+ 2.94
	Polaris	40	21.0	6.0	5.0	56.0	22.0	. .	. .	. .	. .	. .	. .	49 10.00	22 43.16	3.26	. . . . .	− 32.25
	O. Arg. S. 569	41	57.7	0.1	1.1	11.9	13.1	14.5	15.7	16.9	27.7	28.9	31.2	54 14.44	0.08	3.26	0 54 11.26	+ 3.17
	Weisse 980	42	30.8	32.9	34.2	43.8	44.9	46.2	47.3	48.4	58.2	59.2	1.3	56 46.11	0.04	3.26	0 56 42.89	3.22
	Lacaille 303	43	33.1	35.6	36.8	47.4	48.5	49.8	51.1	52.3	2.8	3.8	6.1	59 49.75	0.08	3.26	0 59 46.57	3.13
	Lacaille 310	44	37.8	40.2	41.4	51.9	53.0	54.4	55.7	56.8	7.4	8.6	10.8	0 54.36	0.08	3.26	1 0 51.18	3.13
	Radcliffe 371	45	48.0	51.2	52.9	7.3	8.9	10.5	12.4	14.0	28.3	30.1	33.0	6 10.60	0.02	3.26	1 6 7.36	2.76
	* + 38° 47′	46	33.4	36.0	37.7	49.8	51.2	52.7	54.2	55.6	8.1	9.6	12.1	9 52.76	+ 0.02	3.26	1 9 49.52	2.97
	* + 36° 44′	47	. .	. .	. .	. .	. .	. .	. .	59.8	1.3	2.8	4.3	11 2.05	− 43.04	3.26	1 10 15.75	3.00
	Lalande 2330	48	. .	. .	. .	23.0	24.3	25.8	27.2	28.5	40.5	41.8	44.4	11 31.94	− 6.18	3.26	1 11 22.50	3.00
	* + 38° 20′	49	38.9	41.7	43.2	55.6	56.7	58.1	59.6	0.9	13.4	14.7	17.4	16 58.20	+ 0.02	3.26	1 16 54.96	2.98
	* + 38° 20′	50	17.9	19.4	21.2	22.8	25.6	. .	41.9	45.2	46.6	48.2	49.8	17 3.86	− 0.42	− 3.26	1 17 0.18	+ 2.98

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Nov. 18, 0.9	− 3.26	+ 0.007	− 0.05	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 18	Lalande 2603 . .	1	. .	. .	. .	41.9	43.1	44.7	46.5	47.7	0.2	1.5	4.2	19 51.22	− 6.38	− 3.26	1 19 41.58	+ [illegible]
Y.	96 Piscium . . .	2	1.1	3.2	4.3	13.9	15.0	16.1	17.2	18.4	28.0	29.2	31.3	22 16.15	+ 0.04	3.26	1 22 12.93	[illegible]
	Rumker 331 . .	3	15.7	17.8	19.0	28.6	29.6	30.8	32.0	33.1	42.8	43.8	45.8	25 30.82	0.05	3.26	1 25 27.61	3.11
	Rumker N. F., 755	4	41.8	43.8	45.0	54.6	55.7	57.0	58.2	59.2	8.9	10.0	11.9	27 56.92	+ 0.04	3.26	1 27 53.70	3.14
	Lacaille 402 . .	5	. .	. .	. .	21.9	23.2	25.6	43.6	46.0	47.5	48.9	50.3	30 38.38	− 30.11	3.26	1 30 5.01	[illegible]
	B. A. C. 516 . .	6	. .	. .	. .	30.6	31.8	33.3	34.6	35.9	47.7	48.8	51.4	34 39.26	− 6.01	3.26	1 34 29.99	[illegible]
	ο Piscium . . .	7	16.8	19.0	20.1	29.7	30.8	32.0	33.1	34.2	44.0	45.1	47.2	38 32.00	+ 0.04	3.26	1 38 28.78	[illegible]
	B. A. C. 544 . .	8	. .	42.8	44.2	56.4	57.7	59.2	0.6	2.0	14.2	15.5	. .	40 59.18	0.02	3.25	1 40 55.95	3.04
	O. Arg. S. 1181 .	9	20.0	22.1	23.3	33.6	34.7	35.9	37.1	38.3	48.4	49.6	51.7	50 35.88	0.07	3.25	1 50 32.70	[illegible]
	Lalande 3702 .	10	5.6	7.8	9.2	20.0	21.2	22.5	23.7	24.8	35.6	36.8	39.3	53 22.41	0.08	3.25	1 53 19.24	[illegible]
	O. Arg. S. 1266 .	11	10.7	13.0	14.2	24.9	25.9	27.2	28.6	29.7	40.5	41.7	44.0	57 27.31	0.08	3.25	1 57 24.14	[illegible]
	β Trianguli . . .	12	30.8	33.3	34.6	46.3	47.6	49.0	50.5	51.8	3.3	4.6	7.0	1 48.98	0.03	3.25	2 1 45.76	3.10
	Weisse 72 . . .	13	14.0	16.1	17.3	26.9	27.8	29.1	30.4	31.4	41.0	42.1	44.1	6 29.11	0.05	3.25	2 6 25.91	[illegible]
	* + 55° 18′ . .	14	. .	. .	. .	9.3	11.1	13.3	15.4	17.3	. .	. .	. .	11 13.28	0.02	3.25	2 11 10.05	[illegible]
	O. Arg. S. 1551 .	†15	34.4	36.5	37.7	47.7	48.7	50.0	51.3	52.3	2.4	3.4	5.6	19 50.00	0.07	3.25	2 19 46.82	[illegible]
	Weisse 379 . .	16	27.7	29.7	30.9	40.7	41.8	43.0	44.2	45.3	55.0	56.1	58.3	23 42.97	0.04	3.25	2 23 39.76	[illegible]
	* − 33° 11′ . .	17	22.1	24.6	26.0	37.6	38.8	40.3	41.6	42.8	54.3	55.6	58.0	26 40.15	+ 0.10	3.25	2 26 37.00	[illegible]
	Weisse 475 . .	18	. .	. .	. .	2.3	3.4	4.7	5.8	7.0	16.6	17.6	19.6	29 9.62	− 4.94	3.25	2 29 1.43	[illegible]
	Lacaille 803 . .	19	35.8	38.1	39.5	49.9	51.0	52.3	53.6	54.7	5.2	6.4	8.5	31 52.27	+ 0.08	3.25	2 31 49.10	2.51
	O. Arg. S. 1738 .	20	26.0	28.4	29.6	40.0	41.1	42.5	43.8	44.9	55.5	56.7	58.9	34 42.49	0.08	3.25	2 34 39.32	2.46
	Lacaille 846 . .	21	49.1	51.5	52.9	3.8	4.9	6.4	7.6	8.9	19.9	21.1	23.3	38 6.31	0.09	3.25	2 38 3.15	2.33
	Lalande 5181 . .	22	11.0	13.6	14.9	26.7	28.0	29.6	31.1	32.5	44.4	45.7	48.1	41 29.60	0.02	3.25	2 41 26.37	[illegible]
	20 Persei	†23	11.7	14.2	15.7	27.9	29.2	30.6	32.1	33.6	45.7	47.1	49.5	45 30.66	0.02	3.25	2 45 27.43	3.22
	O. Arg. S. 1887 .	24	. .	. .	. .	24.0	25.2	26.5	27.8	28.9	. .	. .	. .	48 26.48	0.08	3.25	2 48 23.31	2.42
	O. Arg. S. 1930 .	25	41.1	43.3	44.5	54.4	55.4	56.7	57.9	58.9	8.9	10.0	12.4	51 56.68	0.07	3.25	2 51 53.50	[illegible]
	α Ceti	†26	14.3	16.4	17.5	27.2	28.2	29.4	30.5	31.6	41.4	42.4	44.3	55 29.38	0.05	3.25	2 55 26.18	[illegible]
23	θ Aquarii . . .	27	0.5	2.6	3.8	13.5	14.5	15.6	16.8	17.9	27.6	28.8	30.8	10 15.67	0.06	21.71	22 9 54.02	[illegible]
	51 Aquarii . . .	28	22.8	24.8	26.0	35.5	36.7	37.9	39.0	40.1	49.8	50.9	53.0	17 37.86	0.06	21.71	22 17 16.21	4.25
	O. Arg. S. 22146 .	29	2.4	4.6	5.8	15.8	17.0	18.3	19.6	20.7	30.8	31.9	34.1	19 18.27	0.07	21.71	22 18 56.63	4.54
	* − 37° 22′ . .	30	40.5	43.2	44.6	56.6	57.9	59.5	0.7	2.2	14.3	15.7	18.4	26 59.42	0.09	21.71	22 26 37.80	[illegible]
	Piazzi 169 . . .	31	6.5	8.6	9.7	19.4	20.3	21.5	22.7	23.7	33.4	34.4	36.6	30 21.53	0.05	21.71	22 29 59.87	[illegible]
	* + 53° 40′ . .	32	. .	. .	. .	26.3	28.0	30.1	32.1	33.9	. .	. .	. .	35 30.08	0.03	21.70	22 35 8.41	2.43
	* + 57° 49′ . .	33	21.2	25.0	27.1	. .	. .	. .	. .	. .	11.7	13.8	17.5	40 49.38	0.03	21.70	22 40 27.71	2.15
	* +57° 50′ . .	34	. .	. .	. .	45.3	47.2	49.5	51.7	53.5	. .	. .	. .	40 49.44	0.03	21.70	22 40 27.77	2.15
	ι Cephei	35	47.4	52.4	55.2	18.3	20.9	23.9	26.6	29.0	52.3	54.9	59.8	45 23.70	0.03	21.70	22 45 2.03	1.76
	* − 8° 31′ . .	36	1.9	3.9	5.0	14.6	15.7	16.8	17.9	19.1	28.8	29.8	31.7	56 16.84	0.06	21.70	22 55 55.20	[illegible]
	* − 8° 25′ . .	37	9.6	11.8	12.8	22.5	23.5	24.7	25.9	26.9	36.8	37.9	40.0	59 24.76	0.06	21.69	22 59 3.13	[illegible]
	Weisse 112 . .	38	29.0	31.2	32.4	41.9	42.9	44.2	45.3	46.4	55.8	56.9	59.0	7 44.09	0.05	21.69	23 7 22.45	[illegible]
	Weisse 136 . .	39	40.2	42.4	43.5	53.0	54.0	55.3	56.6	57.6	7.2	8.3	10.5	8 55.33	0.06	21.69	23 8 33.70	3.74
	Lacaille 9437 . .	40	54.6	56.9	58.1	9.6	10.7	12.1	13.5	14.7	26.0	27.2	29.7	12 12.10	+ 0.08	21.69	23 11 50.49	[illegible]
	B. A. C. 8139 . .	41	. .	. .	. .	18.5	19.9	21.4	22.8	24.2	36.2	37.7	40.3	15 27.62	− 6.27	21.69	23 14 59.66	[illegible]
	Weisse (2) 363 .	42	24.7	27.4	28.8	40.8	41.9	43.4	44.9	46.1	58.9	59.3	1.8	18 43.45	+ 0.03	21.69	23 18 21.79	3.11
	O. Arg. S. 22851 .	43	11.1	13.3	14.5	24.6	25.5	26.8	27.9	29.1	39.2	40.3	42.4	21 26.79	0.07	21.69	23 21 5.17	3.07
	* − 22° 32′ . .	44	21.0	23.3	24.5	34.9	36.1	37.4	38.6	39.6	50.2	51.4	53.6	25 37.33	0.07	21.68	23 25 15.72	[illegible]
	ι Piscium . . .	45	18.7	20.8	21.9	31.6	32.7	33.8	35.0	36.1	45.7	46.7	48.8	33 33.80	0.05	21.68	23 33 12.17	3.66
	Lacaille 9657 . .	46	54.3	57.0	58.4	11.6	12.8	14.5	15.9	17.5	30.8	32.5	35.0	50 14.57	0.11	21.67	33 49 53.01	3.94
	Lacaille 9674, (1st *)	47	. .	. .	. .	4.0	5.2	6.6	7.2	9.1	. .	. .	. .	53 6.42	0.08	21.67	23 52 44.83	3.50
	Lacaille 9674, (2d *)	†48	49.5	51.9	53.1	. .	. .	. .	. .	. .	19.9	21.0	23.2	53 6.43	0.08	21.67	23 52 44.84	3.50
	B. A. C. 8364 . .	49	. .	8.7	10.8	28.7	30.5	32.9	35.1	37.2	55.3	57.4	. .	58 32.96	0.03	21.67	23 58 11.32	2.24
	B. A. C. 8372 . .	50	19.8	23.8	26.0	44.0	45.8	48.0	50.2	52.3	10.2	12.3	16.0	59 48.04	+ 0.03	−21.67	23 59 26.40	+ 2.25

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Nov. 23, 0.4	− 21.66	+ 0.024	− 0.04	+ 0.05

15. Preceded by a faint star.
23. Unsteady.
26. Unsteady.
48. Northward.

DATE.	OBJECT.	Number.	I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	CORRECTIONS. Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 23 Y.	O. Arg. S. 47 . .	1	34.2	36.6	37.7	47.8	48.9	50.1	51.3	52.4	2.6	3.8	5.8	5 50.11	+ 0.07	−21.67	0 5 28.51	+ 3.64
	B. A. C. 41 . .	2	56.2	58.7	0.2	13.0	14.2	15.9	17.4	18.7	31.6	33.2	35.7	9 15.89	0.10	21.67	0 8 54.32	3.67
	Lalande 409 . .	3	25.9	28.5	30.0	42.0	43.4	44.9	46.5	47.7	59.7	1.0	3.5	15 44.83	0.03	21.66	0 15 23.20	3.02
	Lalande 509 . .	4	46.1	48.7	50.0	1.8	3.0	4.5	6.0	7.4	19.3	20.5	23.0	19 4.57	+ 0.03	21.66	0 18 42.94	3.04
	Lalande 658 . .	5	. .	. .	. .	16.0	17.1	18.3	19.5	20.5	30.3	31.3	33.3	23 23.29	— 4.94	21.66	0 22 56.69	3.45
	B. A. C. 136 . .	†6	20.8	23.5	24.9	36.6	37.8	39.3	40.8	42.1	54.0	55.3	57.9	27 39.36	+ 0.09	21.66	0 27 17.79	3.44
	Weisse 510 . .	7	2.2	4.5	5.5	15.3	16.3	17.4	18.6	19.6	29.4	30.4	32.6	31 17.44	0.04	21.66	0 30 55.82	3.35
	Weisse 588 . .	8	8.1	10.3	11.4	21.0	22.0	23.2	24.3	25.5	35.0	36.1	38.1	35 23.18	0.05	21.66	0 35 1.57	3.36
	* + 6° 22′ . .	9	32.5	34.8	35.9	45.7	46.6	47.8	49.0	50.0	59.9	0.9	2.9	39 47.82	0.06	21.66	0 39 26.22	3.37
	(* 138) Washington	10	5.4	7.4	8.6	. .	. .	. .	. .	. .	32.3	33.2	35.3	43 20.37	0.05	21.65	0 42 58.77	3.32
	Weisse (2) 1172 .	11	20.0	22.6	24.0	36.0	37.2	38.8	40.3	41.6	53.6	55.0	57.5	46 38.78	0.03	21.65	0 46 17.16	3.11
	B. A. C. 263 . .	12	16.8	19.2	20.5	31.4	32.4	33.6	34.9	36.1	46.7	47.9	50.3	50 33.62	0.04	21.65	0 50 12.01	3.16
	Rumker, N. F., 451	13	59.6	1.7	2.8	12.4	13.5	14.6	15.7	16.7	26.4	27.5	29.6	53 14.59	0.05	21.65	0 52 52.99	3.28
	21 Ceti	14	31.3	33.4	34.5	44.3	45.2	46.5	47.7	48.7	58.4	59.5	1.5	56 46.45	0.06	21.65	0 56 24.86	3.27
	77 Piscium . . .	15	9.0	11.2	12.2	. .	. .	. .	. .	. .	36.0	37.0	39.1	59 24.08	0.05	21.65	0 59 2.48	3.26
	B. A. C. 312 . .	16	. .	. .	. .	24.0	25.1	26.3	27.4	28.4	. .	. .	. .	59 26.24	+ 0.05	21.65	0 59 4.64	3.26
	Lalande 2027 . .	17	. .	. .	. .	42.8	44.0	45.6	46.9	48.5	0.9	2.1	4.6	2 51.92	— 6.24	21.64	1 2 24.04	3.02
	* + 38° 47′ . .	18	52.0	54.8	56.1	8.5	9.7	11.4	12.7	14.0	26.5	28.0	30.5	10 11.29	+ 0.03	21.64	1 9 49.68	+ 3.01
	Polaris . . .	19	. .	. .	. .	. .	. .	6.0	57.0	42.0	. .	. .	. .	12 55.00	— 46.42	21.64	. . . . .	— 29.26
	* + 38° 20′ . .	20	. .	56.4	57.8	10.0	11.4	13.0	14.5	15.9	28.0	29.4	. .	17 12.93	+ 0.03	21.64	1 16 51.32	+ 3.02
	* + 38° 20′ . .	21	31.2	32.6	34.4	35.9	38.6	. .	55.3	58.5	0.0	1.7	3.2	17 17.14	— 0.41	21.64	1 16 55.09	3.02
	* + 13° 59′ . .	22	44.8	47.0	48.2	58.0	59.2	0.4	1.7	2.7	12.7	13.7	15.7	22 0.37	+ 0.04	21.64	1 21 38.77	3.53
	η Piscium . . .	23	34.6	36.8	38.0	47.8	48.8	50.2	51.5	52.5	2.5	3.5	5.7	24 50.17	0.04	21.64	1 24 28.57	3.15
	Lacaille 466 . .	24	54.4	56.9	58.2	9.7	10.8	12.3	13.6	14.9	26.4	27.6	30.0	31 12.25	0.09	21.63	1 30 50.71	2.78
	B. A. C. 516 . .	25	33.3	35.8	37.1	48.8	49.8	51.6	52.9	54.2	5.9	7.2	9.6	34 51.47	0.03	21.63	1 34 29.87	3.08
	* + 3° 0′ . . .	26	3.4	5.5	6.8	16.1	17.2	18.4	19.6	20.7	30.3	31.5	33.5	39 18.45	0.05	21.63	1 38 56.87	3.11
	Weisse 740 . .	27	17.7	19.7	20.9	30.7	31.8	33.0	34.2	35.2	45.1	46.1	48.1	42 32.95	0.04	21.63	1 42 11.36	3.13
	B. A. C. 576 . .	28	16.8	19.5	20.9	32.8	34.0	35.6	37.1	38.5	50.5	51.7	54.2	47 35.60	0.03	21.63	1 47 14.00	3.08
	O. Arg. S. 1181 .	29	38.1	40.6	41.7	51.7	. .	54.0	. .	56.4	6.7	7.8	10.0	50 54.11	0.07	21.63	1 50 32.55	2.86
	O. Arg. S. 1219 .	30	24.7	27.0	28.1	38.7	39.8	41.1	42.4	43.5	54.0	55.3	57.5	53 41.10	+ 0.07	21.62	1 53 19.55	2.75
	* + 9° 25′ . . .	31	. .	21.7	22.7	23.9	25.0	26.1	54.3	57.0	58.4	59.7	1.0	57 40.98	— 17.02	21.62	1 57 2.34	3.09
	Lalande 3979 . .	32	38.8	40.9	42.2	52.5	53.5	54.6	55.8	57.0	6.9	8.1	10.1	2 54.58	+ 0.07	21.62	2 2 33.03	2.79
	O. Arg. S. 1388 .	†33	. .	. .	. .	42.1	43.3	44.6	45.9	47.1	. .	. .	. .	6 44.60	+ 0.08	21.62	2 6 23.06	2.54
	O. Arg. S. 1404 .	34	. .	. .	. .	. .	. .	. .	31.1	34.0	35.4	36.8	38.0	8 35.06	— 38.52	21.62	2 7 34.92	2.54
	o Ceti	35	50.3	52.5	53.5	3.1	4.1	5.3	6.5	7.7	17.2	18.3	20.3	13 5.35	+ 0.05	21.62	2 12 43.78	2.95
	69 Ceti	36	20.5	22.6	23.8	33.5	34.5	35.7	36.8	37.8	47.5	48.6	50.7	15 35.64	0.05	21.62	2 15 14.07	2.98
	Weisse 288 . .	†37	. .	. .	. .	52.5	53.6	54.7	55.9	57.0	. .	. .	. .	18 54.74	0.06	21.61	2 18 33.19	2.91
	Weisse 373 . .	†38	32.0	34.1	35.3	. .	46.4	47.6	48.7	. .	59.6	0.7	2.9	23 47.48	0.04	21.61	2 23 25.91	3.08
	Weisse 443, (1st *)	†39	. .	. .	. .	55.0	56.1	57.3	58.5	59.6	. .	. .	. .	27 57.30	0.06	21.61	2 27 35.75	2.86
	Weisse 443, (2d *)	40	42.1	44.4	45.5	. .	. .	. .	. .	. .	9.3	10.3	12.4	27 57.33	0.06	21.61	2 27 35.78	2.86
	υ Arietis	41	28.5	30.7	31.9	42.3	43.5	44.7	46.0	47.2	57.4	58.5	0.8	31 44.68	0.04	21.61	2 31 23.11	3.12
	γ Ceti	42	37.6	39.6	40.8	50.4	51.4	52.7	53.8	54.9	4.4	5.6	7.6	36 52.62	0.05	21.61	2 36 31.06	2.94
	Weisse (2) 915 .	43	56.6	59.2	0.7	12.6	13.7	15.2	16.7	17.8	29.7	31.0	33.3	39 15.14	0.03	21.61	2 38 53.56	3.28
24	17 Persei	†44	30.6	33.5	34.8	46.6	47.8	49.3	50.5	51.9	3.7	4.8	7.3	43 49.16	0.03	21.60	2 43 27.59	3.19
	Lacaille 9326 . .	45	59.7	2.6	4.2	17.0	18.3	19.8	21.4	22.8	35.9	37.4	40.1	53 19.93	0.06	21.77	22 52 58.22	4.76
	Rumker 10800 .	46	51.4	53.6	54.7	4.5	5.4	6.6	7.8	8.8	18.4	19.7	21.6	56 6.59	+ 0.05	21.77	22 55 44.87	3.98
	α Pegasi	47	. .	32.9	33.9	35.3	36.5	37.6	6.4	9.0	10.3	11.6	12.8	58 52.63	— 17.33	21.77	22 58 13.53	3.65
	ι Gruis	48	54.8	57.8	59.3	13.4	14.7	16.3	18.1	19.6	33.6	35.0	37.8	3 16.40	+ 0.07	21.77	23 2 54.70	4.72
	* — 39° 54′ . .	49	43.5	49.5	47.4	59.8	1.2	2.8	4.2	5.8	18.2	19.7	22.3	8 2.80	0.06	21.77	23 7 41.09	4.51
	Lalande 45588 .	50	. .	45.9	47.1	59.3	0.4	2.0	3.6	4.8	17.0	18.3	. .	11 2.04	+ 0.07	−21.77	23 10 40.34	+ 3.09

6. Second star.
33. Larger star to northward.
37. Unsteady.
38. Faint.
39. Northward.
44. Very unsteady.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Nov. 24, 1.6	— 21.74	+ 0.012	+ 0.01	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868. Nov. 24 Y.	Lacaille 9458 . .	1	46.1	48.6	49.9	1.2	2.5	3.9	5.3	6.6	17.8	19.1	21.4	17 3.85	+ 0.05	−21.77	23 16 42.13	+ 4.25
	* + 54° 21′ . .	2	. .	. . .	. .	16.5	18.0	20.0	22.1	24.0	. .	. .	. .	20 20.12	+ 0.10	21.77	23 19 58.45	2.41
	* + 54° 15′ . .	3	. .	. . .	. .	. .	. .	. .	46.6	50.7	52.7	54.9	57.0	21 52.38	− 57.50	21.77	23 20 33.11	2.42
	* + 54° 15′ . .	4	44.1	47.8	49.6	6.3	7.7	9.7	11.8	13.6	29.9	32.0	35.6	21 9.83	+ 0.10	21.77	23 20 48.16	2.42
	* + 54° 15′ . .	5	. .	. . .	. .	41.7	43.4	45.8	47.4	49.3	. .	. .	. .	22 45.52	0.10	21.77	23 22 23.85	2.42
	* + 54° 18′ . .	6	23.0	26.4	28.3	. .	. .	. .	. .	. .	8.8	10.7	14.2	22 48.57	0.10	21.77	23 22 26.90	2.42
	* − 24° 54′ . .	7	20.8	23.1	24.4	34.9	36.1	37.4	38.7	39.8	50.4	51.6	53.9	34 37.37	0.05	21.76	23 34 15.66	3.05
	Lacaille 9659 . .	8	26.5	28.8	30.1	41.1	42.1	43.4	44.7	45.8	56.6	57.9	0.2	50 43.38	+ 0.05	21.76	23 50 21.67	3.24
	Lacaille 9674, (1st *)	†9	26.4	27.6	29.1	30.5	33.0	. .	40.5	43.3	44.5	45.9	47.4	53 6.82	− 0.34	21.76	23 52 44.72	3.52
	Lacaille 9674, (2d *)	10	49.8	52.0	53.3	4.0	5.2	6.6	7.8	9.0	19.9	21.1	23.3	53 6.55	+ 0.05	21.76	23 52 44.84	3.52
	* − 33° 11′ . .	11	12.8	15.4	16.7	28.2	29.3	30.6	32.0	33.3	45.0	46.2	48.7	58 30.75	+ 0.05	21.76	23 58 9.04	3.80
	Lacaille 9714 . .	12	. .	. . .	. .	4.3	5.7	8.2	26.3	29.2	30.6	31.9	33.5	59 21.21	− 31.02	21.76	23 58 28.43	3.79
	O. Arg. S. 8 . .	13	43.0	45.3	46.5	. .	. .	. .	. .	. .	11.7	12.8	15.1	1 59.07	+ 0.05	21.76	0 1 37.36	3.69
	O. Arg. S. 9 . .	14	. .	. . .	. .	0.9	2.0	3.2	4.4	5.5	. .	. .	. .	2 3.20	0.05	21.76	0 1 41.49	3.69
	* + 6° 8′ . . .	15	54.7	56.7	57.9	7.6	8.7	9.9	11.1	12.1	21.7	22.9	24.9	5 9.84	0.05	21.76	0 4 48.13	3.45
	Lalande 181 . . .	16	17.8	20.4	21.9	33.8	34.9	36.6	38.0	39.4	51.6	52.8	55.4	8 36.60	0.07	21.76	0 8 14.91	3.03
	θ Andromedæ . .	17	. .	20.4	22.0	34.2	35.4	37.0	38.4	39.7	52.1	53.4	. .	10 36.96	0.07	21.76	0 10 15.27	3.01
	* + 44° 12′ . .	18	. .	49.7	51.3	4.7	6.0	7.8	9.4	10.8	24.4	26.0	. .	15 7.79	0.08	21.76	0 14 46.11	2.86
	* + 49° 16′ . .	19	6.0	9.4	10.9	. .	. .	. .	. .	. .	47.3	48.8	52.0	20 29.07	0.09	21.76	0 20 7.40	2.70
	O. Arg. N. 362 .	20	. .	. . .	. .	27.6	29.0	30.8	32.6	34.5	. .	. .	. .	20 30.90	0.09	21.76	0 20 9.23	2.70
	B. A. C. 115 . .	21	54.3	56.5	57.8	8.4	9.5	10.8	12.1	13.3	23.7	24.9	27.1	24 10.76	0.05	21.75	0 23 49.06	3.51
	Rumker 138 . .	22	33.9	36.4	37.7	49.5	50.7	52.2	53.6	54.9	6.7	7.9	10.5	28 52.18	0.06	21.75	0 28 30.49	3.07
	Weisse (2) 746 .	23	53.3	55.7	56.9	7.8	8.9	10.2	11.5	12.7	23.5	24.5	26.9	30 10.17	0.06	21.75	0 29 48.48	3.19
	* − 25° 45′ . .	24	26.3	28.4	29.7	40.6	41.6	42.9	44.2	45.4	56.2	57.3	59.5	33 42.92	0.06	21.75	0 33 21.23	3.42
	Weisse 665 . .	25	24.2	26.4	27.5	37.0	38.1	39.3	40.5	41.6	51.2	52.3	54.4	39 39.32	0.05	21.75	0 39 17.62	3.34
	Weisse 706 . .	26	32.4	34.4	35.5	45.0	46.1	47.5	48.5	49.6	59.2	0.4	2.5	44 47.37	0.05	21.75	0 41 25.67	3.34
	Santini 46 . . .	27	40.0	42.0	43.3	52.9	54.0	55.1	56.3	57.3	6.9	8.0	10.1	44 55.08	+ 0.05	21.75	0 44 33.38	3.33
	* − 1° 32′ . . .	28	. .	. . .	. .	14.4	15.5	17.5	32.7	35.0	36.2	37.7	39.0	47 28.50	− 25.99	21.75	0 46 40.76	3.32
	* − 1° 30′ . . .	29	58.0	0.1	1.1	10.9	11.9	13.0	14.1	15.2	24.5	25.8	27.7	49 12.94	+ 0.05	21.75	0 48 51.24	3.31
	64 Ceti	30	16.4	18.5	19.6	29.4	30.4	31.6	32.8	33.9	43.8	44.9	47.0	52 31.66	0.05	21.75	0 52 9.96	3.30
	Weisse 950 . .	31	12.7	15.0	16.1	25.8	26.8	28.0	29.1	30.2	40.0	41.1	43.2	55 28.00	0.05	21.75	0 55 6.30	3.27
	* + 7° 12′ . . .	32	16.6	18.8	19.9	29.5	30.6	31.8	32.9	33.9	43.6	44.7	46.9	58 31.75	+ 0.05	21.75	0 58 10.05	3.12
	* + 7° 12′ . . .	33	. .	. .	. .	56.6	57.6	59.5	15.1	17.5	18.8	20.0	21.3	59 10.79	− 26.17	21.75	0 58 22.87	3.20
	Lamont 187 . .	34	21.4	23.7	24.8	34.4	35.4	36.6	37.7	38.8	48.5	49.6	51.5	4 36.58	+ 0.05	21.75	1 4 14.88	3.24
	Weisse 76 . . .	35	0.9	3.0	4.3	13.8	14.9	16.1	17.3	18.4	28.2	29.3	31.4	7 16.15	0.05	21.75	1 6 54.45	3.22
	* + 36° 44′ . .	36	18.5	21.0	22.5	34.5	35.7	37.4	38.7	40.0	52.1	53.5	56.0	10 37.26	0.07	21.75	1 10 15.58	3.04
	Lalande 2330 . .	37	25.2	28.0	29.3	41.2	42.5	43.9	45.5	46.8	58.7	0.1	2.6	11 43.98	+ 0.07	21.75	1 11 22.30	3.04
	* + 22° 50′ . .	38	. .	. .	. .	10.0	11.1	12.4	13.8	14.9	25.2	26.5	28.8	14 17.84	− 5.34	21.75	1 13 50.75	3.16
	θ Ceti	39	. .	. .	. .	47.9	48.9	50.1	51.3	52.3	2.0	3.1	5.3	17 55.11	− 4.98	21.74	1 17 28.39	3.15
	(* 61) Washington	40	10.6	12.6	13.8	. .	. .	. .	. .	. .	37.9	39.0	40.7	21 25.77	+ 0.05	21.74	1 21 4.08	3.15
	Rumker 331 . .	41	34.2	36.2	37.4	47.0	48.0	49.2	50.4	51.6	1.2	2.2	4.3	25 49.25	0.05	21.74	1 25 27.56	3.14
	Weisse 441 . .	42	34.9	37.0	38.1	47.8	48.7	50.0	51.0	52.2	1.9	3.0	5.1	26 49.97	0.05	21.74	1 26 28.28	3.14
	* − 2° 28′ . . .	43	. .	. .	. .	32.3	33.3	34.5	35.7	36.8	. .	. .	. .	27 34.52	+ 0.05	21.74	1 27 12.83	+ 3.14
	Polaris	44	. .	. .	. .	. .	. .	. .	56.0	36.0	28.0	20.0	10.0	35 18.00	− 23 9.87	21.74	. . . .	− 28.69
	* + 38° 5′ . . .	45	10.8	13.5	14.8	27.1	28.4	29.8	31.5	32.6	45.0	46.4	48.9	39 29.89	+ 0.07	21.74	1 39 8.22	− 3.06
	* + 13° 38′. . .	46	47.0	49.1	50.4	0.4	1.3	2.4	3.7	4.9	14.8	15.9	17.6	43 2.50	0.05	21.74	1 42 40.81	3.14
	* − 13° 39′ . .	47	. .	25.7	26.8	36.6	37.8	38.9	40.1	41.2	51.3	52.5	. .	43 38.99	0.05	21.74	1 43 17.30	3.14
	Weisse 821 . .	48	40.3	42.4	43.4	53.0	54.1	55.3	56.5	57.6	7.3	8.3	10.3	46 55.32	0.05	21.74	1 46 33.63	3.05
	* − 27° 9′ . . .	49	44.3	46.6	48.0	58.8	59.9	1.1	2.5	3.7	14.7	15.7	18.0	50 1.21	0.05	21.74	1 49 39.52	3.74
	B. A. C. 613 . .	50	1.3	4.0	5.6	18.2	19.7	21.5	22.9	24.3	37.4	38.8	41.4	53 21.37	+ 0.06	−21.74	1 52 59.69	+ 2.32

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Nov. 24, 1.6	− 21.74	+ 0.012	+ 0.01	+ 0.05

9. Northward.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	CORRECTIONS. Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 24	* −9° 25′	1	8.8	10.8	11.9	21.8	22.9	24.0	25.2	26.3	. .	. .	. .	57 18.96	+ 5.09	−21.74	1 57 2.31	+ 3.09
Y.	ξ^1 Ceti	2	10.1	12.2	13.4	23.0	24.1	25.3	26.5	27.6	37.3	38.4	40.5	6 25.31	0.05	21.73	2 6 3.63	3.07
	B. A. C. 700	3	49.4	53.0	55.1	12.5	14.4	16.5	18.7	20.6	38.2	40.1	43.5	10 16.55	0.11	21.73	2 9 54.93	2.90
	B. A. C. 701	4	. .	2.2	4.3	. .	. .	. .	. .	. .	47.4	49.3	. .	10 25.80	+ 0.09	21.73	2 10 4.16	2.90
	* + 37° 6′	5	. .	. .	. .	44.0	45.3	46.9	48.3	49.6	1.5	3.0	5.5	14 53.00	− 6.17	21.73	2 14 25.10	3.13
	B. A. C. 742	6	35.6	38.1	39.3	50.5	51.7	53.0	54.4	55.8	6.9	8.1	10.5	17 53.08	+ 0.05	21.73	2 17 31.40	2.43
	O. Arg. S. 1551	7	. .	. .	. .	6.3	7.2	8.5	9.7	10.9	20.9	22.1	24.2	20 13.73	− 5.13	21.73	2 19 46.87	2.74
	* + 36° 39′	8	14.0	16.7	18.0	30.0	31.1	32.6	34.0	35.4	47.5	48.7	51.5	23 32.68	+ 0.07	21.73	2 23 11.02	3.15
	Lalande 4761	9	55.6	58.1	59.5	11.5	12.8	14.4	15.9	17.1	29.1	30.4	32.9	28 14.30	0.07	21.73	2 27 52.64	3.16
	Lacaille 803	10	54.4	56.7	58.0	8.4	9.5	10.7	12.0	13.1	23.6	24.8	27.0	32 10.75	0.05	21.73	2 31 49.07	2.51
	O. Arg. S. 1738	11	44.6	46.9	48.0	58.6	59.7	1.0	2.2	3.4	14.0	15.2	17.4	35 1.00	0.05	21.73	2 34 39.32	2.47
	Weisse 639	12	. .	7.9	8.9	18.7	19.7	21.0	22.2	23.4	33.2	34.3	. .	38 21.03	0.05	21.73	2 37 59.35	3.05
	Weisse (2) 972	13	2.5	4.8	6.0	16.6	17.8	19.2	20.3	21.6	32.2	33.4	35.6	41 19.09	0.06	21.73	2 40 57.42	3.14
	β Fornacis	14	40.6	43.2	44.5	55.9	57.0	58.4	59.9	1.1	12.7	13.8	16.4	43 58.50	0.05	21.73	2 43 36.82	2.15
	Weisse 789	15	51.4	53.6	54.8	4.6	5.6	. .	8.1	9.2	19.0	20.2	22.3	47 6.88	0.05	21.73	2 46 45.20	3.06
	* + 38° 5′	16	47.5	50.2	51.6	3.8	5.1	6.5	8.0	9.5	21.6	23.1	25.7	50 6.60	0.07	21.73	2 49 44.94	3.21
	O. Arg. S. 1977	17	7.4	9.7	10.9	20.8	21.9	. .	24.4	25.7	35.7	36.8	39.0	56 23.23	0.05	21.72	2 56 1.56	2.50
	* −26° 17′	18	6.9	9.2	10.3	21.0	22.2	23.6	24.8	26.0	36.7	38.0	40.3	59 23.55	0,05	21.72	2 59 1.88	2.27
	Lalande 5834	19	5.2	7.8	9.2	21.5	22.6	24.2	25.7	26.9	39.0	40.4	43.0	3 24.14	0.07	21.72	3 3 2.49	2.27
	Weisse 90	20	15.6	17.9	18.9	28.6	29.6	30.8	32.0	33.1	43.0	44.1	46.1	6 30.88	0.05	21.72	3 6 9.21	2.70
	Weisse (2) 173	21	19.8	22.5	23.7	36.1	37.4	38.9	40.5	41.8	54.1	55.6	58.2	9 38.96	+ 0.07	21.72	3 9 17.31	3.27
	O. Arg. S. 2189	†22	26.6	27.8	29.2	30.6	32.7	. .	56.2	38.8	40.1	41.4	42.7	13 4.61	− 0.32	21.72	3 12 42.57	2.42
	O. Arg. S. 2190	23	48.7	51.2	52.4	2.4	3.6	4.6	5.7	6.9	17.0	18.4	20.6	13 4.68	+ 0.05	21.72	3 12 43.01	2.42
	Weisse 299	24	14.7	16.9	17.9	27.7	28.8	30.0	31.2	32.3	42.0	43.1	45.2	18 29.98	0.05	21.72	3 18 8.31	2.98
	66 Arietis	25	43.3	45.4	46.5	56.4	57.3	58.4	59.6	0.7	10.3	11.5	13.5	20 58.45	0.05	21.72	3 20 36.78	2.97
	* + 37° 2′	26	31.2	33.8	35.2	47.3	48.5	50.0	51.6	52.8	5.0	6.3	8.9	23 50.05	0.07	21.72	3 23 28.40	3.31
	Weisse 456	27	9.7	11.7	12.8	22.6	23.6	24.9	26.1	27.1	36.8	37.8	40.0	26 24.84	+ 0.05	21.72	3 26 3.17	2.63
	* + 38° 42′	†28	48.9	50.1	52.1	53.6	56.2	. .	13.2	16.2	17.9	19.5	21.1	32 34.88	− 0.37	21.72	3 32 12.79	3.35
	* + 38° 42′	29	15.7	18.4	19.9	32.2	33.5	35.0	36.6	37.8	50.0	51.5	54.2	32 34.96	+ 0.07	21.72	3 32 13.31	3.35
	Rumker 945	30	1.7	3.9	5.3	15.6	16.7	18.0	19.4	20.5	31.0	32.4	34.6	36 18.10	0.06	21.72	3 35 56.44	3.20
	4 Pleiadum	31	7.8	9.9	11.2	21.6	22.7	24.0	25.4	26.5	37.0	38.2	40.4	38 24.06	0.06	21.72	3 38 2.40	3.20
	33 Pleiadum	32	43.7	46.0	47.1	57.9	58.9	0.2	1.5	2.6	13.1	14.2	16.6	42 0.16	0.06	21.72	3 41 38.50	3.20
	* −19° 8′	33	27.9	30.0	31.2	41.5	42.5	43.7	44.9	46.0	56.3	57.5	59.6	44 43.74	0.05	21.71	3 44 22.08	2.30
	τ^8 Eridani	34	13.7	16.0	17.3	27.9	28.9	30.3	31.6	32.7	43.5	44.6	46.9	48 30.31	0.05	21.71	3 48 8.65	2.08
	γ Eridani	35	1.6	3.8	4.9	14.8	15.8	17.0	18.3	19.4	29.3	30.4	32.6	52 17.08	0.05	21.71	3 51 55.42	2.45
27	Weisse (2) 363	36	24.8	27.4	28.7	40.6	41.7	43.1	44.6	45.9	57.9	59.3	1.7	18 43.25	0.07	21.60	23 18 21.72	3.18
	B. A. C. 8175	37	21.3	23.5	24.6	34.5	35.5	36.8	37.9	38.8	48.8	49.9	52.1	21 36.70	0.05	21.60	23 21 15.15	3.97
	b^3 Aquarii	38	54.1	56.3	57.5	8.0	9.1	10.4	11.7	12.8	. .	. .	. .	25 4.99	+ 5.42	21.60	23 24 48.81	4.07
	B. A. C. 8196	39	. .	. .	. .	30.0	31.2	33.5	49.8	52.5	53.8	55.2	56.6	25 45.32	− 27.99	21.60	23 24 55.73	4.07
	ι Piscium	40	18.6	20.9	21.9	31.6	32.6	33.8	34.8	36.0	45.6	46.8	48.8	33 33.76	+ 0.05	21.60	23 33 12.21	3.70
	* + 34° 18′	†41	. .	. .	. .	. .	. .	. .	26.9	30.0	31.5	32.9	34.4	47 31.14	− 40.67	21.60	23 46 28.87	3.16
	1 Ceti	42	41.8	44.0	45.3	55.3	56.4	57.6	58.8	59.9	9.9	11.1	13.3	51 57.58	+ 0.05	21.60	23 51 36.03	3.78
	O. Arg. S. 23176	43	28.0	30.2	31.4	41.5	42.5	43.9	44.9	46.2	56.5	57.4	59.5	53 43.82	0.05	21.60	23 53 22.27	3.79
	Weisse 1196	44	56.5	58.5	59.7	9.4	10.4	11.6	12.9	14.0	23.8	24.8	26.8	59 11.67	+ 0.05	21.60	23 58 50.12	3.68
	Weisse 1227	45	. .	. .	. .	14.2	15.2	17.3	33.1	35.5	36.7	38.0	39.3	1 28.66	− 26.52	21.60	0 0 40.54	3.68
	Lacaille 1	46	3.9	6.8	8.4	21.9	23.2	25.0	26.4	28.0	41.3	42.8	45.6	6 24.85	+ 0.07	21.60	0 6 3.32	3.78
	* + 7° 26′	47	27.0	29.2	30.4	40.0	41.0	42.4	43.5	44.6	54.3	55.3	57.4	9 42.28	+ 0.05	21.60	0 9 20.73	3.48
	36 Piscium	48	. .	. .	. .	9.3	10.2	11.6	12.7	13.8	23.5	24.6	26.6	10 16.54	− 4.97	21.60	0 9 49.97	3.48
	* + 44° 12′	49	46.5	49.4	51.0	4.4	5.8	7.4	9.2	10.7	24.3	25.7	28.4	15 7.53	+ 0.07	21.60	0 14 46.00	2.90
	* + 44° 14′	50	. .	. .	. .	. .	. .	. .	39.8	43.0	44.9	46.6	48.4	16 44.54	− 46.90	−21.60	0 15 36.04	+ 2.90

22. Northward.
28. Northward.
41. Faint.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Nov. 27, 1.8	− 21.61	− 0.004	0.00	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 6	O. Arg. S. 22230 .	1	50.0	52.5	53.8	4.2	5.4	6.6	7.7	8.9	19.5	20.6	22.8	27 6.55	+ 0.13	+ 3.08	22 27 9.76	+ 4.[illegible]
Y.	* + 36° 4′ . . .	2	. .	53.3	54.8	6.7	7.9	9.4	10.9	12.2	24.0	25.3	. .	30 9.39	− 0.06	3.08	22 30 12.41	2.[illegible]
	10 Lacertæ . . .	3	0.8	3.5	4.9	17.3	18.5	19.9	21.4	22.9	35.2	36.5	38.9	33 19.98	− 0.07	3.08	22 33 22.99	2.7[illegible]
	O. Arg. S. 22378 .	4	9.0	11.1	12.3	23.0	23.9	25.1	26.2	27.4	37.9	39.1	41.3	37 25.12	+ 0.13	3.08	22 37 28.33	4.1[illegible]
	Rumker 10641 .	5	1.2	3.3	4.4	14.2	15.2	16.5	17.6	18.7	28.4	29.4	31.6	42 16.41	0.07	3.08	22 42 19.56	3.[illegible]
	Lalande 44877 .	6	15.5	17.6	18.9	29.2	30.2	31.5	32.8	33.9	44.3	45.4	47.6	50 31.54	0.12	3.08	22 50 34.74	4.[illegible]
	* − 6° 39′ . . .	7	47.4	49.4	50.6	0.2	1.3	2.5	3.6	4.7	14.4	15.5	17.5	55 2.46	0.07	3.08	22 55 5.61	3.[illegible]
	h^2 Aquarii . . .	8	10.3	12.5	13.7	23.3	24.4	25.6	26.8	27.9	37.6	38.6	40.8	58 25.59	0.08	3.08	22 58 28.75	3.[illegible]
	h^4 Aquarii . . .	9	3.6	5.9	7.2	16.8	17.9	19.1	20.3	21.4	30.9	32.0	34.3	0 19.04	+ 0.08	3.08	23 0 22.20	3.[illegible]
	ι Gruis	10	. .	. .	. .	8.6	10.4	13.2	35.3	38.5	40.0	42.2	44.0	3 29.02	− 37.16	3.08	23 2 54.94	4.0[illegible]
	Weisse 142 . .	11	35.5	37.7	38.8	48.3	49.5	50.7	51.8	52.9	2.6	3.6	5.7	8 50.65	+ 0.07	3.09	23 8 53.81	3.72
	Lacaille 9443 . .	12	8.8	11.9	13.2	26.5	27.7	29.2	30.6	32.0	45.5	46.9	48.7	12 29.18	0.23	3.09	23 12 32.50	4.1[illegible]
	O. Arg. S. 22800 .	13	56.2	58.5	59.7	10.4	11.5	12.8	14.0	15.2	25.8	26.9	29.3	16 12.75	0.14	3.09	23 16 15.98	3.6[illegible]
	* − 34° 21′ . .	14	16.6	19.2	20.5	32.2	33.3	34.7	36.2	37.4	49.1	50.5	52.9	20 34.78	0.18	3.09	23 20 38.05	3.[illegible]
	Weisse 443 . .	†15	34.1	36.3	37.3	47.0	48.0	49.2	50.4	51.4	1.0	2.1	4.1	22 49.17	+ 0.05	3.09	23 22 52.31	3.5[illegible]
	Weisse 449 . .	16	. .	. .	. .	21.7	22.8	24.8	39.9	42.6	43.8	45.0	46.2	23 35.85	− 25.96	3.09	23 23 12.98	3.5[illegible]
	Weisse 679 . .	17	11.3	12.5	13.9	15.2	17.3	. .	17.7	20.1	21.3	22.6	23.9	33 47.58	− 0.32	3.09	23 33 50.35	3.42
	Weisse 683 . .	18	40.3	42.3	43.6	53.2	54.3	55.4	56.6	47.7	7.4	8.5	10.5	33 55.44	+ 0.03	3.09	23 33 58.56	3.42
	B. A. C. 8274 . .	19	29.6	31.8	32.9	42.6	43.7	45.0	46.1	57.1	56.8	57.9	0.0	41 44.86	0.07	3.09	23 41 48.02	3.54
	* − 5° 43′ . . .	20	12.5	14.5	15.7	25.3	26.4	27.6	28.7	29.8	39.6	40.6	42.7	47 27.58	0.07	3.10	23 47 30.75	3.5[illegible]
	Lacaille 9665 . .	21	49.4	51.9	53.3	5.9	7.1	8.8	10.4	11.7	24.4	25.5	28.3	51 8.79	+ 0.21	3.10	23 51 12.10	3.6[illegible]
	O. Arg. S. 23176 .	22	. .	. .	. .	16.9	17.9	19.3	20.5	21.6	31.7	32.8	35.0	53 24.46	− 5.14	3.10	23 53 22.42	3.56
	Lacaille 9713 . .	23	56.1	58.9	0.2	12.2	13.3	14.7	16.4	17.6	29.7	31.2	33.6	58 14.90	+ 0.19	3.10	23 58 18.19	3.5[illegible]
	Lacaille 9723 . .	24	35.5	38.3	39.5	51.5	52.6	54.1	55.6	56.9	8.9	10.3	12.9	59 54.19	+ 0.19	3.10	23 59 57.48	3.54
	γ Pegasi	25	10.8	13.0	14.2	24.0	25.1	26.3	27.5	28.6	38.6	39.7	41.9	6 26.34	0.00	3.10	0 6 29.44	3.23
	Lalande 330 . .	26	33.9	36.5	37.8	49.7	51.0	52.6	54.1	55.3	7.2	8.6	11.1	12 52.53	− 0.06	3.10	0 12 55.57	2.54
	* + 7° 25′ . . .	27	. .	. .	. .	37.6	38.7	39.7	40.9	42.0	51.7	52.8	54.9	21 44.79	− 4.98	3.10	0 21 42.91	3.20
	Weisse 421 . .	28	39.0	41.3	42.5	52.2	53.1	54.4	55.6	56.7	6.4	7.5	9.6	25 54.39	+ 0.08	3.10	0 25 57.57	3.32
	Lalande 884 . .	29	42.9	45.5	46.9	59.0	0.3	1.9	3.4	4.7	16.7	18.2	20.8	29 1.85	− 0.07	3.10	0 29 4.88	2.8[illegible]
	Lalande 966 . .	30	. .	. .	. .	19.5	20.7	22.3	23.7	25.0	. .	. .	. .	31 22.24	0.07	3.11	0 31 25.28	2.84
	32 Andromedæ . .	31	39.6	42.4	43.8	56.1	57.4	58.8	0.4	1.8	14.1	15.6	18.1	33 58.91	− 0.07	3.11	0 34 1.95	2.51
	Weisse 428 . .	32	40.8	43.0	44.3	54.0	55.1	56.4	57.6	58.7	8.7	9.9	12.0	41 56.41	+ 0.10	3.11	0 41 59.62	3.23
	Santini 46 . . .	33	. .	. .	. .	42.2	43.3	45.3	0.5	3.0	4.3	5.6	6.8	44 56.38	− 26.00	3.11	0 44 33.49	3.22
	21 Ceti	34	22.5	24.6	25.6	35.5	36.4	37.6	38.8	39.8	49.7	50.7	52.6	47 37.05	+ 0.08	3.11	0 47 40.84	3.21
	Weisse 912 . .	35	50.2	52.4	53.5	2.9	4.0	5.3	6.5	7.5	17.2	18.2	20.3	53 5.27	0.04	3.11	0 53 8.42	3.14
	Weisse 979 . .	36	22.6	24.8	25.9	35.5	36.5	37.7	38.9	39.9	49.5	50.7	52.6	56 37.69	0.04	3.11	0 56 40.84	3.18
	Weisse 1002 . .	37	41.0	43.2	44.4	54.0	55.1	56.2	57.3	58.4	8.0	9.0	11.1	57 56.15	0.04	3.11	0 57 59.30	3.15
	O. Arg. S. 644 .	38	0.6	3.0	4.3	15.2	16.3	17.7	18.9	20.2	31.4	32.5	34.7	1 17.71	0.15	3.11	1 1 20.97	3.00
	Weisse 42 . . .	39	23.5	25.8	26.9	36.8	37.9	39.0	40.1	41.2	51.0	52.1	54.3	4 38.96	0.01	3.11	1 4 42.08	3.15
	O. Arg. S. 704 .	40	41.5	43.8	45.1	55.9	56.9	58.2	59.5	0.8	11.5	12.7	14.5	7 58.22	0.14	3.11	1 8 1.47	3.00
	41 Ceti	41	48.9	51.0	52.2	2.0	3.1	4.2	5.4	6.4	16.2	17.3	19.3	11 4.18	0.07	3.11	1 11 7.36	3.11
	Weisse 201 . .	42	36.0	38.1	39.3	49.3	50.1	51.3	52.5	53.6	3.4	4.6	6.7	13 51.35	+ 0.01	3.12	1 13 54.48	+ 3.14
	Polaris . . .	43	. .	. .	. .	. .	. .	. .	. .	. .	6.0	51.0	14.0	21 3.67	− 9 12.29	3.12	. . . . .	− 36.77
	Weisse 414 . .	44	58.4	0.5	1.8	11.4	12.5	13.7	14.8	15.9	25.7	26.8	28.8	25 13.66	+ 0.02	3.12	1 25 16.80	+ 3.13
	Lacaille 451 . .	45	40.0	42.3	43.5	54.6	55.7	57.0	58.4	59.6	10.7	11.9	14.2	27 57.08	0.16	3.12	1 28 0.36	2.7[illegible]
	Weisse 540 . .	46	51.8	53.9	55.0	4.5	5.6	6.8	7.9	9.0	18.7	19.7	21.8	32 6.79	0.04	3.12	1 32 9.95	3.10
	Weisse 601 . .	47	2.6	4.8	5.9	. .	. .	. .	. .	. .	29.6	30.6	32.8	34 17.72	0.04	3.12	1 34 20.88	3.10
	τ Ceti	48	40.0	42.3	43.5	53.5	54.5	55.8	56.9	58.1	8.2	9.2	11.5	37 55.77	0.10	3.12	1 37 58.99	2.92
	* + 7° 3′ . . .	49	23.5	25.7	26.8	36.4	37.6	38.8	40.0	41.1	50.7	51.8	53.8	41 38.75	0.03	3.12	1 41 41.90	3.10
	O. Arg. S. 1116 .	50	52.8	55.0	56.3	6.9	7.8	9.2	10.5	11.7	22.2	23.3	25.4	44 9.20	+ 0.13	+ 3.12	1 44 12.45	+ 2.78

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Nov. 6, 23.4	+ 3.09	+ 0.014	− 0.17	+ 0.05

15. Preceded by a smaller star.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 6	Weisse 843	1	29.8	31.9	33.1	42.8	43.8	45.0	46.1	47.1	56.6	57.7	59.9	47 44.89	+ 0.06	+ 3.12	1 47 48.07	+ 3.04
Y.	O. Arg. S. 1189	2	41.4	43.6	44.7	54.9	55.9	57.1	58.5	59.5	9.7	10.8	12.9	50 57.18	0.11	3.12	1 51 0.41	2.83
	B. A. C. 619	3	35.6	38.2	39.8	. .	54.4	55.7	57.1	. .	11.4	12.6	15.4	53 55.58	0.22	3.13	1 53 58.93	2.22
	O. Arg. S. 1261	4	35.6	37.8	39.0	. .	50.4	51.7	53.2	. .	4.7	5.9	8.0	56 51.81	0.13	3.13	1 56 55.07	2.73
	Weisse 1071	5	23.0	25.1	26.2	36.0	36.9	38.1	39.4	40.4	50.1	51.2	53.3	0 38.15	0.03	3.13	2 0 41.31	3.09
	Weisse 1080	6	4.8	7.0	8.1	17.8	18.9	20.0	21.1	22.3	31.9	33.0	35.1	1 20.00	+ 0.03	3.13	2 1 23.16	3.09
	Lalande 4238	7	12.0	14.2	15.5	25.6	26.7	27.9	29.1	30.3	40.4	41.6	43.7	10 27.91	0.00	3.13	2 10 31.04	3.14
	* + 37° 6′	8	. .	. .	. .	19.3	20.5	22.1	23.6	24.9	36.9	38.2	40.9	14 28.30	− 6.31	3.13	2 14 25.12	3.16
	O. Arg. S. 1554	9	35.7	37.9	39.1	49.7	50.8	52.1	53.4	54.5	5.0	6.1	8.6	19 52.08	+ 0.14	3.13	2 19 55.35	2.57
	Lalande 4667	10	31.4	34.1	35.4	47.4	48.8	50.4	51.8	53.3	5.4	6.4	9.0	24 50.31	− 0.07	3.13	2 24 53.37	3.21
	Weisse (2) 642	11	13.8	16.6	17.8	29.8	31.0	32.6	33.9	35.2	47.4	48.6	51.2	27 32.54	0.07	3.13	2 27 35.60	3.22
	ν Arietis	12	. .	6.2	7.4	17.8	18.9	20.1	21.4	22.4	32.7	33.8	. .	31 20.08	− 0.01	3.13	2 31 23.20	3.19
	γ Ceti	13	. .	14.7	15.9	25.5	26.5	27.7	29.0	30.1	39.7	40.8	. .	36 27.77	+ 0.04	+ 3.14	2 36 30.95	3.00
7	Lalande 220	14	37.3	38.6	40.4	41.9	44.6	. .	58.3	1.3	2.8	4.5	6.0	10 21.57	− 0.50	−27.39	0 9 53.68	2.86
	* + 35° 53′	15	4.0	6.6	7.8	19.8	21.0	22.5	23.8	25.2	36.9	38.2	40.7	10 22.41	− 0.07	27.39	0 9 54.95	2.86
	Weisse 245	16	19.4	21.5	22.6	32.3	33.3	34.5	35.7	36.7	46.5	47.5	49.5	15 34.50	+ 0.03	27.39	0 15 7.14	3.30
	Lalande 509	17	52.0	54.5	55.8	7.7	8.9	10.5	11.8	13.2	25.2	26.5	29.0	19 10.46	− 0.07	27.39	0 18 43.00	2.86
	48 Piscium	18	36.1	38.2	39.5	49.3	50.4	51.6	52.8	53.9	4.0	5.1	7.2	21 51.65	0.00	27.39	0 21 24.26	3.19
	* + 15° 16′	19	10.6	12.8	14.0	24.0	25.1	26.3	27.5	28.7	38.4	39.6	41.8	24 26.25	0.00	27.39	0 23 58.86	3.19
	B. A. C. 122	20	59.2	1.4	2.6	12.6	13.6	14.9	16.0	17.1	27.0	28.2	30.2	25 14.80	0.00	27.39	0 24 47.41	3.19
	Lalande 863	21	43.0	45.6	47.0	58.9	0.2	1.7	3.2	4.4	16.2	17.6	20.2	29 1.64	0.07	27.39	0 28 34.18	2.88
	Lalande 975	22	50.0	52.6	54.0	5.9	7.1	8.6	9.9	11.2	23.1	24.7	27.0	32 8.55	0.07	27.39	0 31 41.09	2.88
	23 Cassiopeæ	23	41.3	48.7	52.9	28.0	31.6	35.8	40.6	44.5	19.4	23.2	30.7	39 36.06	− 0.49	27.39	0 39 8.18	0.04
	ε Piscium	24	20.9	23.0	24.1	33.8	34.9	36.1	37.3	38.4	47.9	49.0	51.1	56 36.05	+ 0.03	27.38	. . . .	3.13
	28 Ceti	†25	42.6	44.7	45.8	. .	. .	. .	. .	. .	10.0	11.0	12.9	59 57.83	+ 0.08	27.38	0 59 30.53	3.16
	η Ceti	26	. .	. .	. .	39.0	40.2	42.4	57.8	0.2	1.6	2.9	4.1	2 53.52	− 26.41	27.38	1 1 59.73	3.15
	Weisse 65	27	24.9	27.2	28.3	38.0	39.2	40.4	41.5	42.7	52.3	53.5	55.5	6 40.32	+ 0.02	27.38	1 6 12.96	3.15
	Polaris	28	. .	. .	. .	. .	38.0	27.0	16.0	. .	. .	. .	. .	12 27.00	− 5.62	27.38		
	Weisse 280	29	21.4	23.6	24.7	34.4	35.3	36.5	37.7	38.8	48.4	49.4	51.5	18 36.52	+ 0.06	27.38	1 18 9.20	3.11
	η Piscium	30	. .	53.7	54.8	56.0	57.2	58.3	27.2	29.7	31.1	32.4	33.7	25 13.41	− 17.39	27.38	. . . .	3.13
10	λ Aquarii	31	37.1	39.3	40.4	50.1	51.1	52.4	53.6	54.6	4.4	5.5	7.6	45 52.37	+ 0.08	6.60	22 . . .	3.97
	Weisse 1026	32	. .	2.9	4.0	13.7	14.7	15.9	17.1	18.2	27.8	28.9	. .	50 15.91	+ 0.05	6.60	22 50 9.36	3.77
	82 Aquarii	33	. .	. .	. .	2.0	3.1	5.2	20.6	23.0	24.2	25.5	26.8	56 16.30	− 26.15	6.60	22 55 43.55	3.86
	ο Cephei	34	44.6	50.2	53.1	18.0	20.8	24.0	27.1	29.6	54.7	57.8	2.9	13 23.89	0.23	6.58	23 13 17.08	0.65
	67 Pegasi	35	14.9	17.4	18.9	30.1	31.3	32.8	34.2	35.3	46.7	48.0	50.4	18 32.73	− 0.03	6.57	23 18 26.13	3.01
	B. A. C. 8175	36	6.3	8.5	9.7	19.5	20.6	21.8	23.0	24.1	34.0	35.1	37.2	21 21.80	+ 0.09	6.57	23 21 15.32	3.77
	14 Andromedæ	37	38.7	41.4	42.9	55.0	56.3	57.9	59.3	0.8	12.9	14.3	17.1	24 57.87	− 0.06	6.56	23 24 51.25	2.80
	Weisse (2) 658	38	47.0	49.6	50.8	2.6	3.9	5.4	6.9	8.1	20.0	21.3	23.7	31 5.39	0.05	6.56	23 30 58.78	2.91
	Weisse (2) 734	39	56.2	58.7	0.1	12.0	13.2	14.8	16.2	17.6	29.4	30.8	33.3	34 14.75	0.05	6.56	23 34 8.14	2.88
	B. A. C. 8280	40	7.8	11.7	13.8	32.8	34.9	37.1	39.4	41.4	0.1	2.3	6.4	42 57.06	− 0.15	6.55	23 42 50.36	1.75
	ω Piscium	41	26.1	28.2	29.5	39.0	40.1	41.4	42.6	43.5	53.2	54.2	56.4	52 41.29	+ 0.04	6.54	. . . .	3.41
	30 Piscium	42	5.2	7.4	8.5	18.2	19.2	20.5	21.6	22.7	32.5	33.4	35.5	55 20.43	0.07	6.54	23 55 13.96	3.50
	33 Piscium	43	28.6	30.8	32.0	41.6	42.6	43.7	44.9	46.0	55.7	56.8	58.9	58 43.78	0.07	6.54	23 58 37.31	3.48
	B. A. C. 17	44	27.5	29.5	30.6	40.3	41.3	42.5	43.7	44.8	54.5	55.6	57.6	3 42.54	0.07	6.53	0 3 36.08	3.45
	Lalande 181	†45	2.9	5.6	7.0	19.0	20.2	21.7	23.3	24.6	. .	. .	. .	8 15.54	6.21	6.53	0 8 15.22	2.85
	49 Piscium	46	49.8	51.8	53.3	3.1	4.2	5.6	6.7	7.9	. .	. .	. .	24 0.30	5.17	6.51	0 23 58.96	+ 3.21
	Polaris	47	. .	17.0	16.0	. .	. .	. .	. .	. .	. .	. .	. .	48 46.50	23 12.76	6.49	. . . .	− 35.09
	ε Piscium	48	0.0	2.1	3.3	13.0	14.1	15.2	16.4	17.5	27.0	28.2	30.3	56 15.19	0.04	6.48	. . . .	+ 3.14
13	ξ Aquarii	49	36.9	39.0	40.1	49.8	50.8	52.0	53.3	54.4	3.9	5.0	7.0	30 52.02	0.05	6.82	21 30 45.25	4.50
	* + 36° 28′	50	44.8	47.5	48.8	0.8	2.0	3.4	4.9	6.2	18.2	19.5	22.1	44 3.47	+ 0.07	− 6.82	21 43 56.72	+ 3.11

25. Cloudy.
45. Cloudy.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Nov. 7, 1.2	− 27.38	+ 0.014	− 0.19	+ 0.05
10, 23.9	− 6.54	+ 0.052	− 0.15	+ 0.05

DATE.	OBJECT.	Number.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	Mean.	Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
				SECONDS OF TRANSIT.											CORRECTIONS.			
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 13	* + 38° 20′	1	. .	24.0	26.3	37.7	39.0	40.5	42.0	43.3	55.6	57.0	. .	46 40.60	+ 0.07	− 6.82	21 46 33.85	− 3.03
Y.	* + 38° 18′	2	. .	9.9	11.7	13.5	16.7	. .	32.6	35.7	37.3	38.8	. .	46 54.52	− 0.37	6.82	21 46 47.33	3.03
	Lacaille 9006	3	12.8	15.8	17.3	29.9	31.1	32.4	33.8	35.2	47.8	49.2	52.2	56 32.50	+ 0.07	6.82	21 56 25.75	[illegible]
	* − 23° 10′	4	. .	. .	. .	45.0	46.1	47.4	48.8	49.8	0.5	1.6	3.7	0 52.86	− 5.37	6.82	22 0 40.67	4.65
	Piazzi 33	†5	51.1	53.3	54.5	4.5	5.5	6.8	8.0	9.1	19.1	20.2	22.2	8 6.75	+ 0.05	6.83	22 7 59.97	3.65
	* + 16° 32′	6	29.4	30.6	32.0	33.3	. .	. .	. .	40.8	42.1	43.3	44.6	8 7.01	− 0.08	6.83	22 8 0.15	3.65
	32 Pegasi	†7	5.7	8.1	9.4	20.0	21.3	22.7	24.1	25.2	36.0	37.3	39.6	15 22.67	+ 0.06	6.83	22 15 15.90	3.32
	* + 38° 33′	8	. .	. .	. .	32.3	33.4	36.1	55.7	58.6	0.4	2.0	3.6	18 50.26	− 33.19	6.83	22 18 10.24	2.44
	Lalande 43871	9	. .	. .	. .	24.4	25.6	27.3	28.8	30.2	. .	. .	. .	21 27.26	+ 0.07	6.83	22 21 20.50	2.91
	* − 28° 9′	10	. .	. .	. .	30.5	31.6	32.9	34.3	35.5	. .	. .	. .	26 32.96	0.06	6.83	22 26 26.19	4.53
	* − 28° 13′	11	51.4	54.0	55.4	6.2	7.4	8.7	10.0	11.2	22.0	23.3	25.6	27 8.65	0.06	6.83	22 27 1.88	4.53
	* − 28° 58′	12	20.8	23.2	24.5	35.4	36.5	37.8	39.3	40.6	51.5	52.8	55.1	31 37.95	0.06	6.83	22 31 31.18	[illegible]
	* − 21° 39′	13	21.1	23.3	24.5	34.8	35.8	37.1	38.4	39.6	49.8	51.1	53.3	35 37.16	0.05	6.83	22 35 30.38	4.31
	* − 21° 33′	14	2.3	4.5	5.7	16.1	17.3	18.6	19.8	20.9	31.4	32.6	34.7	38 18.54	0.05	6.83	22 38 11.76	4.22
	* − 14° 17′	15	20.9	22.9	24.4	34.6	35.5	36.7	37.7	38.9	49.0	50.2	52.2	42 36.64	0.05	6.83	22 42 29.86	4.11
	ι Cephei	16	. .	38.0	40.9	4.1	6.3	9.2	12.2	14.5	38.0	40.6	. .	45 9.31	+ 0.12	6.83	22 45 2.60	[illegible]
	Weisse 1087 (1st *)	17	24.2	25.4	26.8	28.1	30.3	. .	30.5	32.9	34.1	35.4	36.7	53 0.44	− 0.30	6.83	22 52 53.31	[illegible]
	Weisse 1087 (2d *)	18	45.6	47.8	49.0	58.5	59.5	0.6	1.9	3.0	12.6	13.7	15.7	53 0.72	+ 0.05	6.83	22 52 53.94	[illegible]
	* + 38° 11′	19	8.2	10.7	12.3	. .	. .	. .	. .	. .	42.3	43.9	46.5	58 27.32	0.07	6.83	22 58 20.56	[illegible]
	B. A. C. 8088	20	27.6	30.4	31.8	44.8	46.2	47.7	49.4	50.9	3.6	5.2	8.0	7 47.78	0.07	6.84	23 7 41.01	4.34
	Lacaille 9424	21	21.6	24.4	26.0	38.8	40.1	41.9	43.4	44.7	57.9	59.2	1.7	9 41.79	0.07	6.84	23 9 35.02	4.32
	Weisse 242	22	51.6	53.8	54.9	4.5	5.5	6.7	7.8	8.9	18.5	19.6	21.7	13 6.68	+ 0.05	6.84	23 12 59.89	3.72
	Weisse 246	23	. .	. .	. .	37.5	38.7	39.6	55.9	58.3	59.6	0.9	2.2	13 51.59	− 25.98	6.84	23 13 18.77	3.72
	Lalande 45892	24	56.8	59.2	0.2	10.1	11.2	12.6	13.7	14.9	24.9	26.0	28.0	20 12.51	+ 0.05	6.84	23 20 5.72	[illegible]
	O. Arg. S. 22851	25	56.5	58.8	59.9	9.9	11.0	12.3	13.6	14.6	24.5	25.7	27.8	21 12.24	0.05	6.84	23 21 5.45	3.55
	Lacaille 9507	26	32.5	35.5	37.0	49.9	51.3	52.9	54.4	55.9	9.2	10.6	13.5	24 52.97	0.07	6.84	23 24 46.20	4.11
	ι Piscium	27	4.0	6.2	7.4	17.0	17.9	19.1	20.3	21.4	31.0	32.1	34.2	33 10.15	0.05	[illegible]	23 33 12.36	3.55
	* + 36° 12′	28	30.3	32.9	34.3	46.2	47.4	48.9	50.4	51.8	3.6	4.9	7.5	36 48.93	0.07	[illegible]	23 36 42.16	2.91
	Lacaille 9609	†29	48.2	51.0	52.6	5.6	7.0	8.8	10.3	11.7	25.0	26.2	29.1	43 8.68	0.07	[illegible]	23 43 1.91	[illegible]
	Lalande 46873	30	14.0	16.7	18.0	30.2	31.5	32.9	34.4	35.8	47.9	49.2	51.8	48 32.95	+ 0.07	6.84	23 48 26.18	[illegible]
	Lacaille 9673	31	. .	. .	. .	26.6	27.8	29.5	31.1	32.5	45.8	47.4	50.2	52 36.36	− 6.73	6.84	23 52 22.79	3.73
	B. A. C. 8351	32	10.8	13.0	14.2	23.7	24.8	25.9	27.1	28.2	37.8	38.9	40.8	55 25.63	+ 0.05	6.84	23 55 19.14	[illegible]
	Lacaille 9715	33	24.4	27.1	28.5	41.0	42.4	44.0	45.5	46.9	59.3	0.6	3.2	58 43.90	0.07	6.85	23 58 37.12	3.65
	5 Ceti	34	21.0	23.1	24.3	33.8	34.8	36.0	37.2	38.3	47.8	48.9	51.0	1 36.02	0.05	6.85	0 1 29.22	3.47
	Lacaille 9753	35	55.0	57.5	59.0	10.8	12.1	13.6	15.0	16.2	28.0	29.6	32.0	4 13.53	+ 0.07	6.85	0 4 6.75	[illegible]
	Lacaille 4	36	. .	. .	. .	36.8	38.2	40.0	41.6	43.0	56.2	57.6	0.5	6 46.74	− 6.82	6.85	0 6 33.07	3.53
	* − 32° 46′	37	. .	. .	. .	48.7	50.0	51.4	52.8	54.1	5.5	6.7	9.2	8 57.30	− 5.56	6.85	0 8 44.59	3.53
	Weisse 245	38	58.9	1.0	2.1	11.9	12.8	14.0	15.1	16.1	25.9	27.0	29.1	15 13.99	+ 0.05	6.85	0 15 7.19	3.35
	* + 7° 3′	39	59.2	1.2	2.4	12.0	13.1	14.3	15.5	16.6	26.4	27.4	29.5	18 14.33	0.05	6.85	0 18 7.53	3.32
	Lacaille 90	40	30.2	32.7	33.9	44.5	45.6	47.0	48.2	49.5	0.2	1.4	3.8	20 47.00	0.06	6.85	0 20 40.21	3.42
	Weisse 434	41	22.0	24.1	25.2	34.8	35.8	37.0	38.2	39.3	48.9	50.0	52.0	26 37.03	0.05	6.85	0 26 30.23	3.35
	53 Piscium	42	49.0	51.4	52.5	2.4	3.4	4.7	5.9	7.0	16.9	18.0	20.1	30 4.66	0.05	6.85	0 29 57.86	3.22
	Weisse 832	43	. .	24.9	26.0	36.9	38.0	39.3	40.7	41.8	52.5	53.8	. .	32 39.32	0.06	6.85	0 32 32.53	3.10
	Lacaille 216	44	3.2	5.9	7.4	19.5	20.8	22.3	23.7	24.9	37.1	38.7	41.4	41 22.26	0.07	6.85	0 41 15.48	3.14
	Santini 46	45	25.3	27.4	28.5	38.0	39.0	40.3	41.5	42.5	52.0	53.2	55.3	44 40.27	0.05	6.85	0 44 33.47	3.25
	Weisse 801	46	32.6	34.6	35.8	45.5	46.5	47.8	48.9	50.1	59.8	0.9	2.9	46 47.76	0.05	6.85	0 46 40.96	3.22
	Weisse 912	47	0.1	2 2	3.4	12.8	13.9	15.1	16.4	17.3	26.9	28.0	30.0	53 15.10	+ 0.05	6.86	0 53 8.29	3.22
	B. A. C. 284	48	. .	. .	. .	31.2	32.6	34.0	35.5	36.9	49.4	50.8	53.1	55 40.44	− 6.32	6.86	0 55 27.26	2.96
	Weisse 1002	49	51.1	53.0	54.3	3.7	4.7	6.0	7.3	8.3	17.7	18.8	21.1	58 6.00	+ 0.05	6.86	0 57 59.19	3.21
	ψ² Piscium	50	46.6	48.9	50.0	0.3	1.3	2.5	3.7	4.9	15.3	16.4	18.5	1 2.58	+ 0.05	− 6.86	1 0 55.77	+ 3.13

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Nov. 13, 0.4	− 6.85	− 0.011	0.00	+ 0.05

5. Southward.
7. Only star which could be observed.
29. Preceded by a small star to northward.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	CORRECTIONS. Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 13	45 Andromedæ	1	37.6	40.0	41.4	53.4	54.7	56.2	57.7	59.0	10.9	12.3	14.8	3 56.18	+ 0.07	− 6.86	1 3 49.39	+ 2.90
Y.	Weisse 72	2	. .	. .	. .	58.5	59.5	1.7	16.9	19.4	20.6	21.9	23.0	7 12.69	− 25.98	6.86	1 6 39.85	3.17
	39 Ceti	3	49.0	51.0	52.2	1.7	2.7	3.9	5.2	6.3	15.8	16.9	19.0	10 3.97	+ 0.05	6.86	1 9 57.16	+ 3.15
	Polaris	4	. .	. .	. .	. .	. .	57.0	45.0	29.0	. .	. .	. .	12 43.67	− 45.01	6.86		− 34.09
	* − 1° 11′	5	. .	. .	. .	. .	. .	. .	44.4	46.8	48.0	49.3	50.6	15 47.82	33.61	6.86	1 15 7.35	+ 3.14
	43 Ceti	6	. .	. .	. .	11.4	12.6	14.6	29.9	32.4	33.6	34.8	36.0	16 25.66	25.97	6.86	1 15 52.83	3.14
	Weisse 288	7	. .	. .	. .	. .	. .	. .	1.7	4.3	5.4	6.7	7.9	19 5.20	− 33.83	6.86	1 18 24.51	3.11
	B. A. C. 440	8	22.5	24.6	25.7	35.4	36.5	37.7	38.8	39.9	49.5	50.7	52.8	21 37.65	+ 0.05	6.86	1 21 30.84	3.14
	Weisse 348	9	27.0	29.3	30.3	. .	40.9	42.2	43.4	. .	54.0	55.3	57.4	21 42.20	0.05	6.86	1 21 35.39	3.14
	η Piscium	10	19.7	22.2	23.3	33.1	34.2	35.5	36.6	37.8	47.8	48.9	51.0	24 35.46	0.05	6.86	1 24 28.65	3.14
	Weisse (2) 575	11	50.6	52.7	54.0	3.9	4.8	6.1	7.4	8.5	18.4	19.5	21.7	27 6.15	+ 0.05	6.86	1 26 59.34	3.13
	* + 15° 5′	12	. .	. .	. .	. .	. .	. .	46.2	48.6	49.8	51.2	52.4	27 49.64	− 34.80	6.86	1 27 7.98	3.13
	Lalande 3025	13	12.2	14.9	16.3	28.5	29.8	31.4	32.9	34.1	46.5	47.8	50.5	32 31.35	+ 0.07	6.86	1 32 24.56	2.99
	* − 36° 46′	14	. .	. .	. .	1.6	3.2	5.4	24.7	27.8	29.3	30.8	31.1	40 19.24	− 32.39	6.86	1 39 39.99	2.54
	ε Cassiopeæ	15	35.4	40.2	42.4	3.7	5.8	8.4	11.1	13.5	34.6	37.1	41.7	45 8.54	+ 0.11	6.86	1 45 1.79	2.39
	B. A. C. 579	16	58.4	1.0	2.4	14.2	15.4	17.0	18.5	19.9	31.9	33.2	34.7	48 16.96	0.07	6.87	1 48 10.16	3.06
	O. Arg. S. 1189	17	51.3	53.6	54.8	4.9	5.9	7.2	8.4	9.5	19.8	20.9	22.8	51 7.19	0.05	6.87	1 51 0.37	2.84
	Weisse 973	18	23.7	25.9	27.0	36.8	37.8	39.0	40.2	41.5	51.3	52.3	54.4	55 39.08	0.05	6.87	1 55 32.26	3.10
	Weisse 1038	19	7.3	9.4	10.5	20.2	21.3	22.5	23.6	24.7	34.5	35.5	37.6	59 22.46	0.05	6.87	1 59 15.64	3.08
	Lalande 3979	20	23.9	26.2	27.3	37.4	38.5	39.8	41.0	42.1	52.3	53.5	55.6	2 39.78	0.05	6.87	2 2 32.96	2.78
	Weisse 72	21	17.7	19.8	20.9	30.4	31.5	32.7	33.9	35.0	44.5	45.6	47.7	6 32.70	0.05	6.87	2 6 25.88	3.04
	γ Trianguli	22	21.2	23.7	25.0	36.5	37.7	39.2	40.7	42.0	53.4	54.7	57.0	9 39.19	+ 0.06	6.87	2 9 32.38	3.13
	* − 4° 44′	23	. .	. .	. .	48.3	49.2	50.4	51.6	52.7	2.4	3.5	5.5	12 55.45	− 4.94	6.87	2 12 43.64	3.03
	Lalande 4387	24	54.5	57.2	58.7	11.0	12.4	14.0	15.5	16.8	29.0	30.5	33.1	16 13.88	+ 0.07	6.87	2 16 7.08	3.13
	O. Arg. S. 1535	25	. .	. .	. .	34.2	35.3	37.5	53.5	56.2	57.4	58.7	0.1	18 49.11	− 27.42	6.87	2 18 14.82	2.69
	Weisse 363	26	38.0	40.3	41.4	51.0	52.1	53.3	54.5	55.6	5.3	6.4	8.5	22 53.31	+ 0.05	6.87	2 22 46.49	3.05
	* − 33° 10′	27	25.9	28.5	29.7	41.1	42.2	43.8	45.1	46.4	58.0	59.3	1.6	26 43.78	+ 0.06	6.87	2 26 36.97	2.26
	Weisse 475	28	. .	. .	. .	20.0	21.1	23.3	38.5	41.0	42.3	43.5	44.7	29 34.30	− 26.11	6.87	2 29 1.32	2.87
	B. A. C. 817	29	13.1	15.2	16.3	26.0	27.1	28.3	29.4	30.5	40.0	41.2	43.3	33 28.22	+ 0.05	6.87	2 33 21.40	3.02
	Weisse 580	30	5.5	7.7	8.9	18.6	19.6	20.8	22.0	23.0	32.6	33.8	35.7	34 20.75	0.05	6.87	2 34 13.93	3.02
	Lalande 5115	31	19.0	21.9	23.3	35.8	37.0	38.8	40.1	41.5	53.7	54.9	57.7	39 38.52	0.07	6.87	2 39 31.72	3.22
	* − 34° 19′	32	55.8	58.3	59.5	11.2	12.4	13.8	15.2	16.6	28.3	29.6	32.0	43 13.88	0.06	6.88	2 43 7.06	2.00
	Weisse 789	33	36.2	38.7	39.9	49.9	50.9	52.3	53.5	54.4	4.4	5.3	7.2	46 52.06	+ 0.05	6.88	2 46 45.23	3.10
	* + 38° 6′	34	. .	. .	. .	48.9	50.1	51.7	53.1	54.3	6.4	8.0	10.7	49 57.90	− 6.25	6.88	2 49 44.77	3.26
	Lacaille 951	35	30.9	33.5	34.9	46.6	47.8	49.3	50.7	52.0	3.6	5.0	7.6	53 49.26	+ 0.06	6.88	2 53 42.44	2.02
	Lalande 5682	36	1.6	4.4	5.6	17.8	19.2	20.7	22.3	23.6	35.6	36.9	39.8	58 20.68	0.07	6.88	2 58 13.87	3.30
	* + 13° 46′	37	45.6	47.7	48.9	58.6	59.7	0.9	2.3	3.3	13.2	14.3	16.3	1 0.98	0.05	6.88	3 0 54.15	3.21
	Weisse 20	38	21.4	23.4	24.5	34.4	35.4	36.6	37.8	38.8	48.8	49.8	52.0	3 36.63	0.05	6.88	3 3 29.80	3.08
	ζ Arietis	†39	13.5	15.8	16.8	27.3	28.3	29.5	30.8	32.0	42.1	43.4	45.5	7 29.55	0.05	6.88	3 7 22.72	3.20
	* + 14° 37′	40	16.7	18.8	20.2	29.8	31.0	32.2	33.4	34.6	44.6	45.6	47.7	10 32.24	0.05	6.88	3 10 25.41	3.13
	B. A. C. 1039	41	42.8	45.2	46.2	56.9	57.9	59.3	0.6	1.7	12.3	13.5	15.8	13 59.29	0.05	6.88	3 13 52.46	2.29
14	η Aquarii	42	28.2	30.3	31.5	41.0	42.1	43.3	44.5	45.5	55.2	56.3	58.3	28 43.29	0.05	6.76	22 28 36.58	3.96
	* + 39° 1′	43	50.8	53.4	54.9	7.3	8.7	10.2	11.7	13.0	25.4	26.8	29.5	44 10.15	0.06	6.76	22 44 3.45	2.89
	* + 39° 2′	44	36.2	38.7	40.3	52.5	53.8	55.4	57.0	58.4	10.8	12.0	14.7	45 55.44	+ 0.06	6.76	22 45 48.74	2.89
	Lacaille 9313	45	. .	. .	. .	33.5	34.7	36.3	37.7	39.2	51.4	52.8	55.4	50 42.62	− 6.30	6.76	22 50 29.56	4.52
	Lacaille 9326	46	. .	. .	. .	2.0	3.3	4.9	6.6	7.9	21.0	22.3	25.0	53 11.62	− 6.61	6.76	22 52 58.25	4.56
	Weisse 1150, (1st *)	†47	. .	. .	. .	34.7	35.8	37.0	38.2	39.5	. .	. .	. .	55 37.00	+ 0.05	6.76	22 55 30.29	3.99
	Weisse 1150, (2d *)	48	. .	. .	. .	49.5	50.6	52.7	8.3	10.8	12.0	13.3	14.6	56 3.98	− 26.54	6.76	22 55 30.68	3.99
	Weisse 1221	49	30.3	32.5	33.5	43.1	44.2	45.4	46.6	47.7	57.3	58.4	0.6	58 45.42	+ 0.05	6.76	22 58 38.71	3.90
	58 Pegasi	50	16.7	18.8	19.9	29.5	30.5	31.7	32.9	34.0	43.7	44.8	46.8	3 31.75	+ 0.05	− 6.76	23 3 25.04	+ 3.59

39. Unsteady.
47. Southward.

	r.	
November 13, 14h.	Image east 0.25.	Clamp east.
	Image east 0.08.	Clamp west.
After slight adjustment for inclination—		
	Image east 0.12.	Clamp west.
	Image east 0.30.	Clamp east.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
Nov. 14, 0.9	− 6.75	+ 0.004	− 0.01	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 14	B. A. C. 8088 . .	1	27.3	30.1	31.7	44.5	45.8	47.4	48.9	50.3	3.4	4.7	7.6	7 47.43	+ 0.07	− 6.76	23 7 40.74	+ 4.36
Y.	Lacaille 9424 . .	2	21.4	24.1	25.5	38.4	39.8	41.5	42.9	44.4	57.2	58.6	1.5	9 41.39	0.07	6.76	23 9 34.70	4.33
	O. Arg. S. 22779 .	3	14.0	16.4	17.7	28.3	29.3	30.5	32.0	33.2	43.8	45.0	47.3	14 30.68	0.06	6.76	23 14 23.98	4.04
	Weisse 342 . .	4	39.3	41.5	42.7	52.5	53.5	54.7	56.0	57.1	6.9	8.0	10.1	17 54.75	0.05	6.76	23 17 48.04	3.46
	13 Andromedæ . .	5	35.4	38.1	39.7	52.6	54.0	55.6	57.3	58.7	11.7	13.1	15.9	20 55.65	0.06	6.76	23 20 48.95	2.76
	Weisse 476 . .	6	. .	. .	. .	44.2	45.2	46.5	47.7	48.8	. .	. .	. .	24 46.48	0.05	6.76	23 24 39.77	3.70
	A^1 Aquarii . . .	7	36.6	38.9	40.2	50.4	51.4	52.6	53.8	55.0	5.2	6.3	8.5	34 52.63	0.06	6.76	23 34 45.93	3.75
	τ Cassiopeæ . . .	8	19.2	23.1	25.3	43.3	45.2	47.5	49.7	51.7	9.7	12.0	15.6	40 47.48	0.08	6.75	23 40 40.81	1.95
	* + 28 54′ . .	9	58.8	1.4	2.6	13.6	14.7	16.0	17.5	18.7	29.8	30.8	33.2	46 10.11	0.05	6.75	23 46 9.41	3.16
	Lalande 46873 .	10	. .	. .	. .	30.1	31.4	32.9	34.4	35.8	. .	. .	. .	48 32.92	0.06	6.75	23 48 26.23	2.39
	Weisse 1045 . .	11	31.4	33.6	34.7	44.5	45.5	46.6	47.8	48.9	58.4	59.5	1.6	51 46.59	+ 0.05	6.75	23 51 39.89	3.45
	O. Arg. S. 23181 .	12	. .	. .	. .	17.0	18.1	20.2	36.8	39.6	40.9	42.3	43.6	54 32.31	− 28.28	6.75	23 53 57.28	3.06
	B. A. C 8372 . .	13	4.9	8.9	11.0	28.9	30.6	33.0	35.2	37.0	55.0	57.2	0.9	59 32.96	+ 0.08	6.75	23 59 26.20	2.03
	* + 4° 22′ . . .	14	. .	. .	. .	51.8	52.9	54.9	10.3	12.7	14.0	15.3	16.5	4 6 05	− 26.03	6.75	0 3 33.27	3.41
	* + 6° 8′ . . .	15	. .	52.7	53.7	54.8	56.0	57.1	25.4	27.8	29.0	30.3	31.6	5 11.84	− 16.87	6.75	0 4 48.22	3.35
	Weisse 124 . .	16	26.0	28.2	29.4	38.9	39.9	41.2	42.4	43.5	53.2	54.3	56.4	8 41.22	+ 0.05	6.75	0 8 34.52	3.47
	* − 6° 54′ . . .	17	36.9	38.2	39.6	40.8	43.0	. .	43.5	45.9	47.3	48.6	49.7	11 13.35	− 0.30	6.75	0 11 6.30	3.46
	* − 6° 56′ . . .	18	. .	0.3	1.4	11.0	12.0	13.3	14.4	15.5	25.3	26.2	. .	11 13.27	+ 0.05	6.75	0 11 6.57	3.45
	Weisse 236 . .	19	24.2	26.4	27.6	37.2	38.2	39.4	40.6	41.7	51.4	52.4	54.5	14 39.42	0.05	6.75	0 14 32.72	3.42
	O. Arg. S. 160 .	20	27.2	29.5	30.8	41.5	42.6	43.9	45.2	46.4	56.9	58.0	0.2	17 43.84	0.06	6.75	0 17 37.15	3.40
	Weisse 437 . .	21	. .	. .	. .	48.0	49.0	50.3	51.7	52.7	. .	. .	. .	26 50.34	0.05	6.75	0 26 43.64	3.36
	53 Piscium . . .	22	49.0	51.2	52.4	2.1	3.1	4.4	5.6	6.8	16.7	17.8	19.9	30 4.45	0.05	6.75	0 29 57.75	3.23
	Weisse 832 . .	23	. .	. .	. .	36.8	37.8	39.1	40.4	41.7	. .	. .	. .	32 39.16	+ 0.05	6.75	0 32 32.46	3.20
	* − 6 21′ . .	24	. .	. .	. .	53.5	54.6	56.7	12.2	14.5	15.7	16.0	18.2	36 7.79	− 26.12	6.75	0 35 34.92	3.32
	Weisse 704 . .	25	14.4	16.5	17.6	27.4	28.5	29.6	30.8	32.4	41.6	42.6	44.7	41 29.61	+ 0.05	6.75	0 41 22.91	3.25
	Santini 46 . . .	26	24.9	27.0	28.2	37.8	38.9	40.0	41.3	42.2	51.9	52.9	55.0	44 40.01	0.05	6.75	0 44 33.31	3.26
	Weisse 802 . .	27	35.1	37.3	38.4	48.0	49.2	50.3	51.3	52.5	2.2	3.1	5.1	46 50.23	0.05	6.75	0 46 43.53	3.25
	* + 1° 47′ . . .	28	6.0	8.2	9.4	18.9	19.9	21.1	22.3	23.5	33.0	34.1	36.2	51 21.15	0.05	6.75	0 51 14.45	3.24
	* + 1° 55′ . . .	29	9.3	11.5	12.6	22.0	23.2	24.3	25.7	26.8	36.3	37.2	39.4	52 24.39	0.05	6.75	0 52 17.69	3.23
	Weisse 918 . .	30	13.0	15.2	16.3	25.9	26.9	28.0	29.2	30.2	40.0	41.0	43.1	53 28.07	+ 0.05	6.75	0 53 21.37	3.23
	ε Piscium . . .	31	. .	. .	. .	27.4	28.4	30.5	45.7	48.2	49.5	50.8	52.1	56 41.58	− 26.16	6.75	0 56 8.67	3.16
	Weisse 1048 . .	32	58.6	0.7	2.0	11.5	12.5	13.8	15.0	16.1	25.7	26.8	28.9	0 13.78	+ 0.05	6.75	1 0 7.08	3.21
	Radcliffe 371 . .	33	51.4	54.6	56.3	10.7	12.4	13.9	15.9	17.3	31.7	33.2	36.4	6 13.98	0.07	6.75	1 6 7.30	2.73
	39 Ceti	34	48.7	50.8	52.0	1.5	2.6	3.7	5.0	6.1	15.7	16.7	17.7	10 3.68	0.05	6.75	1 9 56.98	+ 3.17
	Polaris	35	. .	. .	. .	. .	. .	6.0	57.0	45.0	. .	. .	. .	11 56.00	2.16	6.75	. . . .	− 33.79
	Weisse 208 . .	36	. .	. .	. .	26.2	27.3	28.5	29.6	30.6	. .	. .	. .	14 28.44	0.05	6.75	1 14 21.74	+ 3.16
	Weisse 288 . .	37	16.0	18.1	19.3	28.9	29.8	30.9	32.3	33.4	43.0	44.2	46.1	18 31.09	0.05	6.75	1 18 24.39	3.12
	B. A. C. 439 . .	38	12.8	14.9	16.0	25.9	27.0	28.3	29.6	30.7	40.6	41.8	43.9	21 28.32	0.05	6.75	1 21 21.62	3.14
	B. A. C. 481 . .	39	3.2	5.3	6.5	16.2	17.2	18.3	19.4	20.6	30.3	31.3	33.4	29 18.34	0.05	6.75	1 29 11.64	3.07
	105 Piscium . . .	40	28.0	30.2	31.4	41.4	42.4	43.7	44.9	45.9	56.0	57.1	59.3	32 43.66	0.05	6.75	1 32 36.96	3.13
	B. A. C. 524 . .	41	. .	17.2	18.3	28.4	. .	30.5	. .	32.8	42.8	43.9	. .	35 30.56	+ 0.05	6.75	1 35 23.86	3.12
	o Piscium . . .	42	. .	. .	. .	33.1	34.2	35.4	36.7	37.7	47.4	48.4	50.5	38 40.43	− 4.98	6.75	1 38 28.70	3.12
	ι Arietis, (1st *) .	43	45.3	47.5	48.7	. .	. .	. .	. .	. .	14.2	15.3	17.5	43 1.42	+ 0.05	6.75	1 42 54.72	3.12
	ι Arietis, (2d *) .	44	. .	. .	. .	59.0	0.1	1.4	2.7	3.8	. .	. .	. .	43 1.40	0.05	6.75	1 42 54.70	3.12
	B. A. C. 576 . .	45	2.0	4.7	6.0	18.0	19.2	20.8	22.1	23.4	35.5	36.9	39.4	47 20.73	0.06	6.75	1 47 14.04	3.05
	48 Cassiopeæ . .	46	39.8	45.9	48.9	17.6	20.4	24.1	27.6	30.7	59.2	2.3	8.4	51 24.08	0.05	6.75	1 51 17.38	1.91
	β Trianguli . . .	47	34.2	36.8	38.0	49.7	50.9	52.4	53.8	55.1	6.7	8.0	10.5	1 52.37	0.05	6.75	2 1 45.67	3.10
	Weisse (2) 147 .	48	8.3	11.0	12.6	24.8	26.0	27.7	29.1	30.5	42.8	44.0	46.9	7 27.61	0.06	6.75	2 7 20.92	3.10
	B. A. C. 718 . .	49	21.9	25.7	27.7	45.0	47.1	49.3	51.4	53.4	10.7	12.7	16.5	12 49.22	0.08	6.74	2 12 42.56	2.80
	ξ Arietis	50	39.4	41.5	42.7	52.5	53.4	54.6	55.7	56.9	6.7	7.8	9.9	17 54.65	+ 0.05	− 6.74	2 17 47.96	+ 3.07

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Nov. 14, 0.9	− 6.75	+ 0.004	− 0.01	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 14	B. A. C. 750 . .	1	0.7	2.8	4.0	13.7	14.7	15.9	17.0	18.2	28.0	29.0	31.1	19 15.92	+ 0.05	− 6.74	2 19 9.23	+ 3.07
Y.	26 Arietis	2	8.8	11.0	12.2	22.5	23.4	24.7	26.0	27.0	37.4	38.4	40.6	23 24.73	0.05	6.74	2 23 18.04	3.13
	Lalande 4761 . .	3	40.5	43.2	44.6	56.5	57.8	59.2	0.7	2.0	14.0	15.4	18.1	27 59.27	0.06	6.74	2 27 52.59	3.18
	B. A. C. 810 . .	4	51.9	54.0	55.1	4.9	5.9	7.1	8.3	9.3	19.2	20.3	22.3	32 7.12	0.05	6.74	2 32 0.43	3.06
	ζ Ceti	5	22.6	24.8	25.8	35.5	36.6	37.8	38.9	39.9	49.6	50.7	52.8	36 37.73	0.05	6.74	2 36 31.04	2.96
	Weisse (2) 915 .	6	41.6	44.3	45.7	57.4	58.5	0.0	1.5	2.8	14.5	15.9	18.5	39 0.06	0.06	6.74	2 38 53.38	3.21
18	η Aquarii . . .	7	24.7	26.7	27.8	37.5	38.6	39.8	40.9	42.0	51.6	52.6	54.8	28 39.73	0.05	3.28	22 28 36.50	4.02
	31 Cephei	8	45.3	52.8	56.6	29.4	33.1	37.0	40.8	44.5	17.3	20.9	27.6	32 36.85	0.01	3.28	22 32 33.58	0.24
	* − 21° 33′ . .	9	41.9	44.3	45.5	55.9	57.1	58.3	59.5	0.6	10.9	12.1	14.4	39 58.23	+ 0.07	3.28	22 38 55.02	4.32
	τ¹ Aquarii . . .	10	. .	. .	. .	59.6	0.7	2.9	18.6	21.0	22.4	23.6	25.0	41 14.22	− 26.84	3.28	22 40 44.10	4.20
	Lacaille 9283 . .	11	56.5	58.8	0.0	10.5	11.7	12.9	14.2	15.5	26.0	27.2	29.4	44 12.97	+ 0.08	3.28	22 44 9.77	4.36
	Lacaille 9351 . .	12	1.6	4.5	5.9	18.7	19.9	21.6	23.2	24.5	37.5	38.9	41.7	56 21.64	0.11	3.27	22 56 18.48	4.58
	Lacaille 9415 . .	13	45.5	48.1	49.6	2.5	3.8	5.4	7.0	8.4	21.4	22.7	25.4	9 5.44	+ 0.11	3.27	23 9 2.28	4.41
	Lalande 45588 .	14	. .	. .	. .	. .	. .	. .	21.8	24.8	26.4	27.9	29.6	11 26.10	− 42.25	3.27	23 10 40.58	2.99
	* + 36° 48′ . .	15	. .	. .	. .	. .	. .	. .	5.2	8.4	10.0	11.6	13.0	15 9.64	− 42.00	3.27	23 14 24.37	3.00
	* + 36° 56′ . .	16	6.5	9.2	10.6	22.4	23.7	25.4	26.9	28.3	40.2	41.6	44.2	17 25.36	+ 0.02	3.27	23 17 22.11	3.00
	* − 34° 20′ . .	17	22.8	25.4	26.6	38.3	39.6	41.1	42.6	43.7	55.4	56.6	59.1	20 41.02	0.10	3.27	23 20 37.85	4.15
	Weisse 476 . .	18	28.0	30.1	31.3	40.8	41.8	43.0	44.2	45.3	55.0	56.0	58.1	24 43.05	0.05	3.27	23 24 39.83	3.75
	Lacaille 9542 . .	19	37.6	40.6	41.8	54.6	56.1	58.0	59.6	1.1	14.0	15.4	18.2	31 57.91	0.12	3.27	23 31 54.76	4.10
	Weisse 705 . .	20	48.4	50.7	51.8	1.3	2.3	3.6	4.8	5.8	15.5	16.6	18.8	35 3.60	+ 0.05	3.27	23 35 0.38	3.53
	* + 28° 55′ . .	21	. .	. .	. .	10.1	11.3	12.7	14.0	15.2	26.2	27.5	29.8	46 18.35	− 5.66	3.27	23 46 9.42	3.15
	O. Arg. S. 23135 .	22	30.9	33.3	34.6	45.8	46.8	48.3	49.7	50.8	2.0	3.3	5.8	49 48.30	+ 0.09	3.27	23 49 45.12	3.78
	Weisse 1058 . .	23	15.5	17.8	18.9	28.4	29.4	30.6	31.8	32.8	42.6	43.6	45.6	52 30.64	0.05	3.27	23 52 27.42	3.50
	Weisse 1110 . .	24	. .	42.7	44.0	53.7	54.7	55.9	57.1	58.2	8.0	9.1	. .	54 55.93	0.05	3.27	23 54 52.71	3.48
	Lacaille 9715 .	25	20.8	23.5	25.0	37.5	38.7	40.4	41.8	43.2	55.7	57.0	59.6	58 40.29	0.11	3.27	23 58 37.13	3.72
	Lalande 47298 .	26	. .	45.1	46.5	58.6	59.8	1.3	2.9	4.1	16.0	17.2	. .	1 1.28	+ 0.02	3.27	0 0 58.03	2.97
	Weisse 28 . . .	27	. .	. .	. .	21.4	22.4	23.6	24.8	25.9	35.5	36.6	38.6	3 28.60	− 4.99	3.27	0 3 20.34	3.55
	Weisse 89 . . .	28	. .	. .	. .	18.8	19.8	21.3	22.6	23.5	33.1	34.2	36.5	6 26.22	− 4.96	3.27	0 6 17.99	3.41
	Weisse 124 . .	29	22.7	24.9	25.9	35.6	36.6	37.8	39.0	40.1	49.8	50.9	53.0	8 37.85	+ 0.06	3.27	0 8 34.64	3.50
	* + 0° 13′ . . .	30	. .	. .	. .	32.7	33.8	35.9	51.4	53.6	54.8	56.0	57.2	11 46.92	− 25.96	3.27	0 11 17.69	3.44
	ι Sculptoris . . .	31	41.6	43.7	45.2	56.2	57.5	58.8	59.9	1.2	12.5	13.7	16.0	14 58.75	+ 0.09	3.26	0 14 55.58	3.52
	B. A. C. 81 . .	32	36.0	38.1	39.2	48.9	49.8	51.0	52.2	53.2	2.9	3.9	6.0	17 51.02	0.05	3.26	0 17 47.81	3.43
	O. Arg. S. 210 .	33	33.5	36.0	37.1	47.1	48.2	49.4	50.7	51.9	2.4	3.6	5.7	21 49.60	0.07	3.26	0 21 46.41	3.46
	Weisse 439 . .	34	35.0	37.0	38.1	47.7	48.7	49.9	51.1	52.3	1.7	2.8	4.9	26 49.93	0.05	3.26	0 26 46.72	3.37
	Weisse 466 . .	35	0.3	2.5	3.5	13.0	14.1	15.3	16.5	17.6	27.3	28.2	30.3	28 15.33	0.05	3.26	0 28 12.12	3.34
	55 Piscium . . .	36	49.2	51.5	52.6	3.0	4.1	5.3	6.4	7.5	18.0	19.1	21.4	33 5.28	0.03	3.26	0 33 2.05	3.21
	β Ceti	37	47.7	50.0	51.1	1.2	2.3	3.7	4.8	6.0	16.0	17.1	19.2	37 3.55	0.07	3.26	0 37 0.36	3.35
	Groombridge 148 .	38	3.1	9.2	12.3	40.7	43.7	47.0	50.6	53.6	22.1	25.0	31.0	41 47.12	0.01	3.26	0 41 43.87	1.18
	Lalande 1444 . .	39	30.4	33.3	34.6	46.9	48.2	49.7	51.2	52.5	4.7	6.0	8.8	45 49.66	0.02	3.26	0 45 46.42	+ 2.94
	Polaris	40	21.0	6.0	5.0	56.0	22.0	. .	. .	. .	. .	. .	. .	49 10.00	22 43.16	3.26	. . . .	− 32.25
	O. Arg. S. 569 .	41	57.7	0.1	1.1	11.9	13.1	14.5	15.7	16.9	27.7	28.9	31.2	54 14.44	0.08	3.26	0 54 11.26	+ 3.17
	Weisse 980 . .	42	30.8	32.9	34.2	43.8	44.9	46.2	47.3	48.4	58.2	59.2	1.3	56 46.11	0.04	3.26	0 56 42.89	3.22
	Lacaille 303 . .	43	33.1	35.6	36.8	47.4	48.5	49.8	51.1	52.3	2.8	3.8	6.1	59 49.75	0.08	3.26	0 59 46.57	3.13
	Lacaille 310 . .	44	37.8	40.2	41.4	51.9	53.0	54.4	55.7	56.8	7.4	8.6	10.8	0 54.36	0.08	3.26	1 0 51.18	3.13
	Radcliffe 371 . .	45	48.0	51.2	52.9	7.3	8.9	10.5	12.4	14.0	28.3	30.1	33.0	6 10.60	0.02	3.26	1 6 7.36	2.76
	* + 38° 47′ . .	46	33.4	36.0	37.7	49.8	51.2	52.7	54.2	55.6	8.1	9.6	12.1	9 52.76	+ 0.02	3.26	1 9 49.52	2.97
	* + 36° 44′ . .	47	. .	. .	. .	. .	. .	. .	. .	59.8	1.3	2.8	4.3	11 2.05	− 43.04	3.26	1 10 15.75	3.00
	Lalande 2330 . .	48	. .	. .	. .	23.0	24.3	25.8	27.2	28.5	40.5	41.8	44.4	11 31.94	− 6.18	3.26	1 11 22.50	3.00
	* + 38° 20′ . .	49	38.9	41.7	43.2	55.6	56.7	58.1	59.6	0.9	13.4	14.7	17.4	16 58.20	+ 0.02	3.26	1 16 54.96	2.98
	* + 38° 20′ . .	50	17.9	19.4	21.2	22.8	25.6	. .	41.9	45.2	46.6	48.2	49.8	17 3.86	− 0.42	− 3.26	1 17 0.18	+ 2.98

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Nov. 18, 0.9	− 3.26	+ 0.007	− 0.05	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 18	Lalande 2603 . .	1	. .	. .	. .	41.9	43.1	44.7	46.5	47.7	0.2	1.5	4.2	19 51.22	− 6.38	− 3.26	1 19 41.58	+ 2.92
Y.	96 Piscium . . .	2	1.1	3.2	4.3	13.9	15.0	16.1	17.2	18.4	28.0	29.2	31.3	22 16.15	+ 0.04	3.26	1 22 12.93	3.15
	Rumker 331 . .	3	15.7	17.8	19.0	28.6	29.6	30.8	32.0	33.1	42.8	43.8	45.8	25 30.82	0.05	3.26	1 25 27.61	3.12
	Rumker N. F., 755	4	41.8	43.8	45.0	54.6	55.7	57.0	58.2	59.2	8.9	10.0	11.9	27 56.92	+ 0.04	3.26	1 27 53.70	3.14
	Lacaille 402 . .	5	. .	. .	. .	21.9	23.2	25.6	43.6	46.0	47.5	48.9	50.3	30 38.38	− 30.11	3.26	1 30 5.01	2.80
	B. A. C. 516 . .	6	. .	. .	. .	30.6	31.8	33.3	34.6	35.9	47.7	48.8	51.4	34 39.26	− 6.01	3.26	1 34 29.99	3.05
	o Piscium . . .	7	16.8	19.0	20.1	29.7	30.8	32.0	33.1	34.2	44.0	45.1	47.2	38 32.00	+ 0.04	3.26	1 38 28.78	3.13
	B. A. C. 544 . .	8	. .	42.8	44.2	56.4	57.7	59.2	0.6	2.0	14.2	15.5	. .	40 59.18	0.02	3.25	1 40 55.95	3.04
	O. Arg. S. 1181 .	9	20.0	22.1	23.3	33.6	34.7	35.9	37.1	38.3	48.4	49.6	51.7	50 35.88	0.07	3.25	1 50 32.70	2.85
	Lalande 3702 .	10	5.6	7.8	9.2	20.0	21.2	22.5	23.7	24.8	35.6	36.8	39.3	53 22.41	0.08	3.25	1 53 19.24	2.65
	O. Arg. S. 1266 .	11	10.7	13.0	14.2	24.9	25.9	27.2	28.6	29.7	40.5	41.7	44.0	57 27.31	0.08	3.25	1 57 24.14	2.65
	β Trianguli . . .	12	30.8	33.3	34.6	46.3	47.6	49.0	50.5	51.8	3.3	4.6	7.0	1 48.98	0.03	3.25	2 1 45.76	3.10
	Weisse 72 . . .	13	14.0	16.1	17.3	26.9	27.8	29.1	30.4	31.4	41.0	42.1	44.1	6 29.11	0.05	3.25	2 6 25.91	3.04
	* + 55° 18′ . .	14	. .	. .	. .	9.3	11.1	13.3	15.4	17.3	. .	. .	. .	11 13.28	0.02	3.25	2 11 10.05	2.91
	O. Arg. S. 1551 .	†15	34.4	36.5	37.7	47.7	48.7	50.0	51.3	52.3	2.4	3.4	5.6	19 50.00	0.07	3.25	2 19 46.82	2.75
	Weisse 379 . .	16	27.7	29.7	30.9	40.7	41.8	43.0	44.2	45.3	55.0	56.1	58.3	23 42.97	0.04	3.25	2 23 39.76	3.08
	* − 33° 11′ . .	17	22.1	24.6	26.0	37.6	38.8	40.3	41.6	42.8	54.3	55.6	58.0	26 40.15	+ 0.10	3.25	2 26 37.00	2.26
	Weisse 475 . .	18	. .	. .	. .	2.3	3.4	4.7	5.8	7.0	16.6	17.6	19.6	29 9.62	− 4.94	3.25	2 29 1.43	2.86
	Lacaille 803 . .	19	35.8	38.1	39.5	49.9	51.0	52.3	53.6	54.7	5.2	6.4	8.5	31 52.27	+ 0.08	3.25	2 31 49.10	2.51
	O. Arg. S. 1738 .	20	26.0	28.4	29.6	40.0	41.1	42.5	43.8	44.9	55.5	56.7	58.9	34 42.49	0.08	3.25	2 34 39.32	2.46
	Lacaille 846 . .	21	49.1	51.5	52.9	3.8	4.9	6.4	7.6	8.9	19.9	21.1	23.3	38 6.31	0.09	3.25	2 38 3.15	2.33
	Lalande 5181 . .	22	11.0	13.6	14.9	26.7	28.0	29.6	31.1	32.5	44.4	45.7	48.1	41 29.60	0.02	3.25	2 41 26.37	3.10
	20 Persei	†23	11.7	14.2	15.7	27.9	29.2	30.6	32.1	33.6	45.7	47.1	49.5	45 30.66	0.02	3.25	2 45 27.43	3.22
	O. Arg. S. 1887 .	24	. .	. .	. .	24.0	25.2	26.5	27.8	28.9	. .	. .	. .	48 26.48	0.08	3.25	2 48 23.31	2.42
	O. Arg. S. 1930 .	25	41.1	43.3	44.5	54.4	55.4	56.7	57.9	58.9	8.9	10.0	12.4	51 56.68	0.07	3.25	2 51 53.50	2.59
	α Ceti	†26	14.3	16.4	17.5	27.2	28.2	29.4	30.5	31.6	41.4	42.4	44.3	55 29.38	0.05	3.25	2 55 26.18	2.96
23	θ Aquarii . . .	27	0.5	2.6	3.8	13.5	14.5	15.6	16.8	17.9	27.6	28.8	30.8	10 15.67	0.06	21.71	22 9 54.02	4.57
	51 Aquarii . . .	28	22.8	24.8	26.0	35.5	36.7	37.9	39.0	40.1	49.8	50.9	53.0	17 37.86	0.06	21.71	22 17 16.21	4.55
	O. Arg. S. 22146 .	29	2.4	4.6	5.8	15.8	17.0	18.3	19.6	20.7	30.8	31.9	34.1	19 18.27	0.07	21.71	22 18 56.63	4.54
	* − 37° 22′ . .	30	40.5	43.2	44.6	56.6	57.9	59.5	0.7	2.2	14.3	15.7	18.4	26 59.42	0.09	21.71	22 26 37.80	4.95
	Piazzi 169 . . .	31	6.5	8.6	9.7	19.4	20.3	21.5	22.7	23.7	33.4	34.4	36.6	30 21.53	0.05	21.71	22 29 59.87	3.95
	* + 53° 40′ . .	32	. .	. .	. .	26.3	28.0	30.1	32.1	33.9	. .	. .	. .	35 30.08	0.03	21.70	22 35 8.41	2.43
	* + 57° 49′ . .	33	21.2	25.0	27.1	. .	. .	. .	. .	. .	11.7	13.8	17.5	40 49.38	0.03	21.70	22 40 27.71	2.15
	* +57° 50′ . .	34	. .	. .	. .	45.3	47.2	49.5	51.7	53.5	. .	. .	. .	40 49.44	0.03	21.70	22 40 27.77	2.15
	ι Cephei	35	47.4	52.4	55.2	18.3	20.9	23.9	26.6	29.0	52.3	54.9	59.8	45 23.70	0.03	21.70	22 45 2.03	1.70
	* − 8° 31′ . .	36	1.9	3.9	5.0	14.6	15.7	16.8	17.9	19.1	28.8	29.8	31.7	56 16.84	0.06	21.70	22 55 55.20	4.05
	* − 8° 25′ . .	37	9.6	11.8	12.8	22.5	23.5	24.7	25.9	26.9	36.8	37.9	40.0	59 24.76	0.06	21.69	22 59 3.13	4.02
	Weisse 112 . .	38	29.0	31.2	32.4	41.9	42.9	44.2	45.3	46.4	55.8	56.9	59.0	7 44.09	0.05	21.69	23 7 22.45	3.50
	Weisse 136 . .	39	40.2	42.4	43.5	53.0	54.0	55.3	56.6	57.6	7.2	8.3	10.5	8 55.33	0.06	21.69	23 8 33.70	3.74
	Lacaille 9437 . .	40	54.6	56.9	58.1	9.6	10.7	12.1	13.5	14.7	26.0	27.2	29.7	12 12.10	+ 0.08	21.69	23 11 50.49	4.25
	B. A. C. 8139 . .	41	. .	. .	. .	18.5	19.9	21.4	22.8	24.2	36.2	37.7	40.3	15 27.62	− 6.27	21.69	23 14 59.66	3.05
	Weisse (2) 363 .	42	24.7	27.4	28.8	40.8	41.9	43.4	44.9	46.1	58.9	59.3	1.8	18 43.45	+ 0.03	21.69	23 18 21.79	3.11
	O. Arg. S. 22851 .	43	11.1	13.3	14.5	24.6	25.5	26.8	27.9	29.1	39.2	40.3	42.4	21 26.79	0.07	21.69	23 21 5.17	3.97
	* − 22° 32′ . .	44	21.0	23.3	24.5	34.9	36.1	37.4	38.6	39.6	50.2	51.4	53.6	25 37.33	0.07	21.68	23 25 15.72	4.02
	ι Piscium . . .	45	18.7	20.8	21.9	31.6	32.7	33.8	35.0	36.1	45.7	46.7	48.8	33 33.80	0.05	21.68	23 33 12.17	3.66
	Lacaille 9657 . .	46	54.3	57.0	58.4	11.6	12.8	14.5	15.9	17.5	30.8	32.5	35.0	50 14.57	0.11	21.67	33 49 53.01	3.94
	Lacaille 9674, (1st *)	47	. .	. .	. .	4.0	5.2	6.6	7.2	9.1	. .	. .	. .	53 6.42	0.08	21.67	23 52 44.83	3.50
	Lacaille 9674, (2d *)	†48	49.5	51.9	53.1	. .	. .	. .	. .	. .	19.9	21.0	23.2	53 6.43	0.08	21.67	23 52 44.84	3.50
	B. A. C. 8364 . .	49	. .	8.7	10.8	28.7	30.5	32.9	35.1	37.2	55.3	57.4	. .	58 32.96	0.03	21.67	23 58 11.32	2.24
	B. A. C. 8372 . .	50	19.8	23.8	26.0	44.0	45.8	48.0	50.2	52.3	10.2	12.3	16.0	59 48.04	+ 0.03	−21.67	23 59 26.40	+ 2.25

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Nov. 23, 0.4	− 21.66	+ 0.024	− 0.04	+ 0.05

15. Preceded by a faint star.
23. Unsteady.
26. Unsteady.
48. Northward.

DATE.		OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
				s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
1868. Nov. 23 Y.		O. Arg. S. 47 . .	1	34.2	36.6	37.7	47.8	48.9	50.1	51.3	52.4	2.6	3.8	5.8	5 50.11	+ 0.07	−21.67	0 5 28.51	+ 3.64
		B. A. C. 41 . .	2	56.2	58.7	0.2	13.0	14.2	15.9	17.4	18.7	31.6	33.2	35.7	9 15.89	0.10	21.67	0 8 54.32	3.67
		Lalande 409 . .	3	25.9	28.5	30.0	42.0	43.4	44.9	46.5	47.7	59.7	1.0	3.5	15 44.83	0.03	21.66	0 15 23.20	3.02
		Lalande 509 . .	4	46.1	48.7	50.0	1.8	3.0	4.5	6.0	7.4	19.3	20.5	23.0	19 4.57	+ 0.03	21.66	0 18 42.94	3.04
		Lalande 658 . .	5	. .	. .	. .	16.0	17.1	18.3	19.5	20.5	30.3	31.3	33.3	23 23.29	− 4.94	21.66	0 22 56.69	3.45
		B. A. C. 136 . .	†6	20.8	23.5	24.9	36.6	37.8	39.3	40.8	42.1	54.0	55.3	57.9	27 39.36	+ 0.09	21.66	0 27 17.79	3.44
		Weisse 510 . .	7	2.2	4.5	5.5	15.3	16.3	17.4	18.6	19.6	29.4	30.4	32.6	31 17.44	0.04	21.66	0 30 55.82	3.35
		Weisse 588 . .	8	8.1	10.3	11.4	21.0	22.0	23.2	24.3	25.5	35.0	36.1	38.1	35 23.18	0.05	21.66	0 35 1.57	3.36
		* + 6° 22′ . .	9	32.5	34.8	35.9	45.7	46.6	47.8	49.0	50.0	59.9	0.9	2.9	39 47.82	0.06	21.66	0 39 26.22	3.37
		(* 138) Washington	10	5.4	7.4	8.6	. .	. .	. .	. .	. .	32.3	33.2	35.3	43 20.37	0.05	21.65	0 42 58.77	3.32
		Weisse (2) 1172 .	11	20.0	22.6	24.0	36.0	37.2	38.8	40.3	41.6	53.6	55.0	57.5	46 38.78	0.03	21.65	0 46 17.16	3.11
		B. A. C. 263 . .	12	16.8	19.2	20.5	31.4	32.4	33.6	34.9	36.1	46.7	47.9	50.3	50 33.62	0.04	21.65	0 50 12.01	3.16
		Rumker, N. F., 451	13	59.6	1.7	2.8	12.4	13.5	14.6	15.7	16.7	26.4	27.5	29.6	53 14.59	0.05	21.65	0 52 52.99	3.28
	21	Ceti	14	31.3	33.4	34.5	44.3	45.2	46.5	47.7	48.7	58.4	59.5	1.5	56 46.45	0.06	21.65	0 56 24.86	3.27
	77	Piscium . . .	15	9.0	11.2	12.2	. .	. .	. .	. .	. .	36.0	37.0	39.1	59 24.08	0.05	21.65	0 59 2.48	3.26
		B. A. C. 312 . .	16	. .	. .	. .	24.0	25.1	26.3	27.4	28.4	. .	. .	. .	59 26.24	+ 0.05	21.65	0 59 4.64	3.26
		Lalande 2027 . .	17	. .	. .	. .	42.8	44.0	45.6	46.9	48.5	0.9	2.1	4.6	2 51.92	− 6.24	21.64	1 2 24.04	3.02
		* + 38° 47′ . .	18	52.0	54.8	56.1	8.5	9.7	11.4	12.7	14.0	26.5	28.0	30.5	10 11.29	+ 0.03	21.64	1 9 49.68	+ 3.01
		Polaris . . .	19	. .	. .	. .	. .	. .	. .	6.0	57.0	42.0	. .	. .	12 55.00	− 46.42	21.64	. . . .	− 29.26
		* + 38° 20′ . .	20	. .	56.4	57.8	10.0	11.4	13.0	14.5	15.9	28.0	29.4	. .	17 12.93	+ 0.03	21.64	1 16 51.32	+ 3.02
		* + 38° 20′ . .	21	31.2	32.6	34.4	35.9	38.6	. .	55.3	58.5	0.0	1.7	3.2	17 17.14	− 0.41	21.64	1 16 55.09	3.02
		* + 13° 59′ . .	22	44.8	47.0	48.2	58.0	59.2	0.4	1.7	2.7	12.7	13.7	15.7	22 0.37	+ 0.04	21.64	1 21 38.77	3.53
	η	Piscium . . .	23	34.6	36.8	38.0	47.8	48.8	50.2	51.5	52.5	2.5	3.5	5.7	24 50.17	0.04	21.64	1 24 28.57	3.15
		Lacaille 466 . .	24	54.4	56.9	58.2	9.7	10.8	12.3	13.6	14.9	26.4	27.6	30.0	31 12.25	0.09	21.63	1 30 50.71	2.78
		B. A. C. 516 . .	25	33.3	35.8	37.1	48.8	49.8	51.6	52.9	54.2	5.9	7.2	9.6	34 51.47	0.03	21.63	1 34 29.87	3.08
		* + 3° 0′ . . .	26	3.4	5.5	6.8	16.1	17.2	18.4	19.6	20.7	30.3	31.5	33.5	39 18.45	0.05	21.63	1 38 56.87	3.11
		Weisse 740 . .	27	17.7	19.7	20.9	30.7	31.8	33.0	34.2	35.2	45.1	46.1	48.1	42 32.95	0.04	21.63	1 42 11.36	3.13
		B. A. C. 576 . .	28	16.8	19.5	20.9	32.8	34.0	35.6	37.1	38.5	50.5	51.7	54.2	47 35.60	0.03	21.63	1 47 14.00	3.08
		O. Arg. S. 1181 .	29	38.1	40.6	41.7	51.7	. .	54.0	. .	56.4	6.7	7.8	10.0	50 54.11	0.07	21.63	1 50 32.55	2.86
		O. Arg. S. 1219 .	30	24.7	27.0	28.1	38.7	39.8	41.1	42.4	43.5	54.0	55.3	57.5	53 41.10	+ 0.07	21.62	1 53 19.55	2.75
		* + 9° 25′ . . .	31	. .	21.7	22.7	23.9	25.0	26.1	54.3	57.0	58.4	59.7	1.0	57 40.98	− 17.02	21.62	1 57 2.34	3.09
		Lalande 3979 . .	32	38.8	40.9	42.2	52.5	53.5	54.6	55.8	57.0	6.9	8.1	10.1	2 54.58	+ 0.07	21.62	2 2 33.03	2.79
		O. Arg. S. 1388 .	†33	. .	. .	. .	42.1	43.3	44.6	45.9	47.1	. .	. .	. .	6 44.60	+ 0.08	21.62	2 6 23.06	2.54
		O. Arg. S. 1404 .	34	. .	. .	. .	. .	. .	. .	31.1	34.0	35.4	36.8	38.0	8 35.06	− 38.52	21.62	2 7 34.92	2.54
	ο	Ceti	35	50.3	52.5	53.5	3.1	4.1	5.3	6.5	7.7	17.2	18.3	20.3	13 5.35	+ 0.05	21.62	2 12 43.78	2.95
	69	Ceti	36	20.5	22.6	23.8	33.5	34.5	35.7	36.8	37.8	47.5	48.6	50.7	15 35.64	0.05	21.62	2 15 14.07	2.98
		Weisse 288 . .	†37	. .	. .	. .	52.5	53.6	54.7	55.9	57.0	. .	. .	. .	18 54.74	0.06	21.61	2 18 33.19	2.91
		Weisse 373 . .	†38	32.0	34.1	35.3	. .	46.4	47.6	48.7	. .	59.6	0.7	2.9	23 47.48	0.04	21.61	2 23 25.91	3.08
		Weisse 443, (1st *)	†39	. .	. .	. .	55.0	56.1	57.3	58.5	59.6	. .	. .	. .	27 57.30	0.06	21.61	2 27 35.75	2.86
		Weisse 443, (2d *)	40	42.1	44.4	45.5	. .	. .	. .	. .	. .	9.3	10.3	12.4	27 57.33	0.06	21.61	2 27 35.78	2.86
	υ	Arietis	41	28.5	30.7	31.9	42.3	43.5	44.7	46.0	47.2	57.4	58.5	0.8	31 44.68	0.04	21.61	2 31 23.11	3.12
	γ	Ceti	42	37.6	39.6	40.8	50.4	51.4	52.7	53.8	54.9	4.4	5.6	7.6	36 52.62	0.05	21.61	2 36 31.06	2.94
		Weisse (2) 915 .	43	56.6	59.2	0.7	12.6	13.7	15.2	16.7	17.8	29.7	31.0	33.3	39 15.14	0.03	21.61	2 38 53.56	3.28
24	17	Persei	†44	30.6	33.5	34.8	46.6	47.8	49.3	50.5	51.9	3.7	4.8	7.3	43 49.16	0.03	21.60	2 43 27.59	3.19
		Lacaille 9326 . .	45	59.7	2.6	4.2	17.0	18.3	19.8	21.4	22.8	35.9	37.4	40.1	53 19.93	0.06	21.77	22 52 58.22	4.76
		Rumker 10800 .	46	51.4	53.6	54.7	4.5	5.4	6.6	7.8	8.8	18.4	19.7	21.6	56 6.59	+ 0.05	21.77	22 55 44.87	3.98
	a	Pegasi	47	. .	32.9	33.9	35.3	36.5	37.6	6.4	9.0	10.3	11.6	12.8	58 52.63	− 17.33	21.77	22 58 13.53	3.65
	ι	Gruis	48	54.8	57.8	59.3	13.4	14.7	16.3	18.1	19.6	33.6	35.0	37.8	3 16.40	+ 0.07	21.77	23 2 54.70	4.72
		* − 39° 54′ . .	49	43.5	49.5	47.4	59.8	1.2	2.8	4.2	5.8	18.2	19.7	22.3	8 2.80	0.06	21.77	23 7 41.09	4.51
		Lalande 45588 .	50	. .	45.9	47.1	59.3	0.4	2.0	3.6	4.8	17.0	18.3	. .	11 2.04	+ 0.07	−21.77	23 10 40.34	+ 3.09

6. Second star.
33. Larger star to northward.
37. Unsteady.
38. Faint.
39. Northward.
44. Very unsteady.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Nov. 24, 1.6	− 21.74	+ 0.012	+ 0.01	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 24	Lacaille 9458 . .	1	46.1	48.6	49.9	1.2	2.5	3.9	5.3	6.6	17.8	19.1	21.4	17 3.85	+ 0.05	−21.77	23 16 42.13	+ 4.25
Y.	* + 54° 21′ . .	2	. .	. .	. .	16.5	18.0	20.0	22.1	24.0	. .	. .	. .	20 20.12	+ 0.10	21.77	23 19 58.45	2.41
	* + 54° 15′ . .	3	. .	. .	. .	. .	. .	. .	46.6	50.7	52.7	54.9	57.0	21 52.38	− 57.50	21.77	23 20 33.11	2.42
	* + 54° 15′ . .	4	44.1	47.8	49.6	6.3	7.7	9.7	11.8	13.6	29.9	32.0	35.6	21 9.83	+ 0.10	21.77	23 20 48.16	2.42
	* + 54° 15′ . .	5	. .	. .	. .	41.7	43.4	45.8	47.4	49.3	. .	. .	. .	22 45.52	0.10	21.77	23 22 23.85	2.42
	* + 54° 18′ . .	6	23.0	26.4	28.3	. .	. .	. .	. .	. .	8.8	10.7	14.2	22 48.57	0.10	21.77	23 22 26.90	2.42
	* − 24° 54′ . .	7	20.8	23.1	24.4	34.9	36.1	37.4	38.7	39.8	50.4	51.6	53.9	34 37.37	0.05	21.76	23 34 15.66	3.92
	Lacaille 9659 . .	8	26.5	28.8	30.1	41.1	42.1	43.4	44.7	45.8	56.6	57.9	0.2	50 43.38	+ 0.05	21.76	23 50 21.67	3.84
	Lacaille 9674, (1st *)	†9	26.4	27.6	29.1	30.5	33.0	. .	40.5	43.3	44.5	45.9	47.4	53 6.82	− 0.34	21.76	23 52 44.72	3.82
	Lacaille 9674, (2d *)	10	49.8	52.0	53.3	4.0	5.2	6.6	7.8	9.0	19.9	21.1	23.3	53 6.55	+ 0.05	21.76	23 52 44.84	3.82
	* − 33° 11′ . .	11	12.8	15.4	16.7	28.2	29.3	30.6	32.0	33.3	45.0	46.2	48.7	58 30.75	+ 0.05	21.76	23 58 9.04	3.80
	Lacaille 9714 . .	12	. .	. .	. .	4.3	5.7	8.2	26.3	29.2	30.6	31.9	33.5	59 21.21	− 31.02	21.76	23 58 28.43	3.79
	O. Arg. S. 8 . .	13	43.0	45.3	46.5	. .	. .	. .	. .	. .	11.7	12.8	15.1	1 59.07	+ 0.05	21.76	0 1 37.36	3.69
	O. Arg. S. 9 . .	14	. .	. .	. .	0.9	2.0	3.2	4.4	5.5	. .	. .	. .	2 3.20	0.05	21.76	0 1 41.49	3.69
	* + 6° 8′ . . .	15	54.7	56.7	57.9	7.6	8.7	9.9	11.1	12.1	21.7	22.9	24.9	5 9.84	0.05	21.76	0 4 48.13	3.45
	Lalande 181 . .	16	17.8	20.4	21.9	33.8	34.9	36.6	38.0	39.4	51.6	52.8	55.4	8 36.60	0.07	21.76	0 8 14.91	3.03
	θ Andromedæ . .	17	. .	20.4	22.0	34.2	35.4	37.0	38.4	39.7	52.1	53.4	. .	10 36.96	0.07	21.76	0 10 15.27	3.01
	* + 44° 12′ . .	18	. .	49.7	51.3	4.7	6.0	7.8	9.4	10.8	24.4	26.0	. .	15 7.79	0.08	21.76	0 14 46.11	2.86
	* + 49° 16′ . .	19	6.0	9.4	10.9	. .	. .	. .	. .	. .	47.3	48.8	52.0	20 29.07	0.09	21.76	0 20 7.40	2.70
	O. Arg. N. 362 .	20	. .	. .	. .	27.6	29.0	30.8	32.6	34.5	. .	. .	. .	20 30.90	0.09	21.76	0 20 9.23	2.70
	B. A. C. 115 . .	21	54.3	56.5	57.8	8.4	9.5	10.8	12.1	13.3	23.7	24.9	27.1	24 10.76	0.05	21.75	0 23 49.06	3.51
	Rumker 138 . .	22	33.9	36.4	37.7	49.5	50.7	52.2	53.6	54.9	6.7	7.9	10.5	28 52.18	0.06	21.75	0 28 30.49	3.07
	Weisse (2) 746 .	23	53.3	55.7	56.9	7.8	8.9	10.2	11.5	12.7	23.5	24.5	26.9	30 10.17	0.06	21.75	0 29 48.48	3.14
	* − 25° 45′ . .	24	26.3	28.4	29.7	40.6	41.6	42.9	44.2	45.4	56.2	57.3	59.5	33 42.92	0.06	21.75	0 33 21.23	3.42
	Weisse 665 . .	25	24.2	26.4	27.5	37.0	38.1	39.3	40.5	41.6	51.2	52.3	54.4	39 39.32	0.05	21.75	0 39 17.62	3.34
	Weisse 706 . .	26	32.4	34.4	35.5	45.0	46.1	47.5	48.5	49.6	59.2	0.4	2.5	44 47.37	0.05	21.75	0 41 25.67	3.34
	Santini 46 . . .	27	40.0	42.0	43.3	52.9	54.0	55.1	56.3	57.3	6.9	8.0	10.1	44 55.08	+ 0.05	21.75	0 44 33.38	3.33
	* − 1° 32′ . . .	28	. .	. .	. .	14.4	15.5	17.5	32.7	35.0	36.2	37.7	39.0	47 28.50	− 25.99	21.75	0 46 40.76	3.32
	* − 1° 30′ . . .	29	58.0	0.1	1.1	10.9	11.9	13.0	14.1	15.2	24.5	25.8	27.7	49 12.94	+ 0.05	21.75	0 48 51.24	3.31
	64 Ceti	30	16.4	18.5	19.6	29.4	30.4	31.6	32.8	33.9	43.8	44.9	47.0	52 31.66	0.05	21.75	0 52 9.96	3.30
	Weisse 950 . .	31	12.7	15.0	16.1	25.8	26.8	28.0	29.1	30.2	40.0	41.1	43.2	55 28.00	0.05	21.75	0 55 6.30	3.27
	* + 7° 12′ . . .	32	16.6	18.8	19.9	29.5	30.6	31.8	32.9	33.9	43.6	44.7	46.9	58 31.75	+ 0.05	21.75	0 58 10.05	3.12
	* + 7° 12′ . . .	33	. .	. .	. .	56.6	57.6	59.5	15.1	17.5	18.8	20.0	21.3	59 10.79	− 26.17	21.75	0 58 22.87	3.26
	Lamont 187 . .	34	21.4	23.7	24.8	34.4	35.4	36.6	37.7	38.8	48.5	49.6	51.5	4 36.58	+ 0.05	21.75	1 4 14.88	3.24
	Weisse 76 . . .	35	0.9	3.0	4.3	13.8	14.9	16.1	17.3	18.4	28.2	29.3	31.4	7 16.15	0.05	21.75	1 6 54.45	3.22
	* + 36° 44′ . .	36	18.5	21.0	22.5	34.5	35.7	37.4	38.7	40.0	52.1	53.5	56.0	10 37.26	0.07	21.75	1 10 15.58	3.04
	Lalande 2330 . .	37	25.2	28.0	29.3	41.2	42.5	43.9	45.5	46.8	58.7	0.1	2.6	11 43.98	+ 0.07	21.75	1 11 22.30	3.04
	* + 22° 50′ . .	38	. .	. .	. .	10.0	11.1	12.4	13.8	14.9	25.2	26.5	28.8	14 17.84	− 5.34	21.75	1 13 50.75	3.16
	θ Ceti	39	. .	. .	. .	47.9	48.9	50.1	51.3	52.3	2.0	3.1	5.3	17 55.11	− 4.98	21.74	1 17 28.39	3.15
	(* 61) Washington	40	10.6	12.6	13.8	. .	. .	. .	. .	. .	37.9	39.0	40.7	21 25.77	+ 0.05	21.74	1 21 4.08	3.13
	Rumker 331 . .	41	34.2	36.2	37.4	47.0	48.0	49.2	50.4	51.6	1.2	2.2	4.3	25 49.25	0.05	21.74	1 25 27.56	3.14
	Weisse 441 . .	42	34.9	37.0	38.1	47.8	48.7	50.0	51.0	52.2	1.9	3.0	5.1	26 49.97	0.05	21.74	1 26 28.28	3.14
	* − 2° 28′ . . .	43	. .	. .	. .	32.3	33.3	34.5	35.7	36.8	. .	. .	. .	27 34.52	+ 0.05	21.74	1 27 12.83	+ 3.14
	Polaris	44	. .	. .	. .	. .	. .	. .	56.0	36.0	28.0	20.0	10.0	35 18.00	− 23 9.87	21.74	. . . .	− [illegible]
	* + 38° 5′ . . .	45	10.8	13.5	14.8	27.1	28.4	29.8	31.5	32.6	45.0	46.4	48.9	39 29.89	+ 0.07	21.74	1 39 8.22	+ 3.06
	* + 13° 38′ . . .	46	47.0	49.1	50.4	0.4	1.3	2.4	3.7	4.9	14.8	15.9	17.6	43 2.50	0.05	21.74	1 42 40.81	3.14
	* − 13° 39′ . .	47	. .	25.7	26.8	36.6	37.8	38.9	40.1	41.2	51.3	52.5	. .	43 38.99	0.05	21.74	1 43 17.30	3.14
	Weisse 821 . .	48	40.3	42.4	43.4	53.0	54.1	55.3	56.5	57.6	7.3	8.3	10.3	46 55.32	0.05	21.74	1 46 33.63	3.05
	* − 27° 9′ . . .	49	44.3	46.6	48.0	58.8	59.9	1.1	2.5	3.7	14.7	15.7	18.0	50 1.21	0.05	21.74	1 49 39.52	3.74
	B. A. C. 613 . .	50	1.3	4.0	5.6	18.2	19.7	21.5	22.9	24.3	37.4	38.8	41.4	53 21.37	+ 0.06	−21.74	1 52 59.69	+ 2.32

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	n.	c.
h.	s.	s.	s.	s.
Nov. 24, 1.6	− 21.74	+ 0.012	+ 0.01	+ 0.05

9. Northward.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS. Inst.	Clock.	Observed R. Ascension.	Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 24	* − 9° 25′ . . .	1	8.8	10.8	11.9	21.8	22.9	24.0	25.2	26.3	. .	. .	. .	57 18.96	+ 5.09	−21.74	1 57 2.31	+ 3.09
Y.	ξ^1 Ceti	2	10.1	12.2	13.4	23.0	24.1	25.3	26.5	27.6	37.3	38.4	40.5	6 25.31	0.05	21.73	2 6 3.63	3.07
	B. A. C. 700 . .	3	49.4	53.0	55.1	12.5	14.4	16.5	18.7	20.6	38.2	40.1	43.5	10 16.55	0.11	21.73	2 9 54.93	2.90
	B. A. C. 701 . .	4	. .	2.2	4.3	. .	. .	. .	. .	. .	47.4	49.3	. .	10 25.80	+ 0.09	21.73	2 10 4.16	2.90
	* + 37° 6′ . . .	5	. .	. .	. .	44.0	45.3	46.9	48.3	49.6	1.5	3.0	5.5	14 53.00	− 6.17	21.73	2 14 25.10	3.13
	B. A. C. 742 . .	6	35.6	38.1	39.3	50.5	51.7	53.0	54.4	55.8	6.9	8.1	10.5	17 53.08	+ 0.05	21.73	2 17 31.40	2.43
	O. Arg. S. 1551 .	7	. .	. .	. .	6.3	7.2	8.5	9.7	10.9	20.9	22.1	24.2	20 13.73	− 5.13	21.73	2 19 46.87	2.74
	* + 36° 39′ . .	8	14.0	16.7	18.0	30.0	31.1	32.6	34.0	35.4	47.5	48.7	51.5	23 32.68	+ 0.07	21.73	2 23 11.02	3.15
	Lalande 4761 . .	9	55.6	58.1	59.5	11.5	12.8	14.4	15.9	17.1	29.1	30.4	32.9	28 14.30	0.07	21.73	2 27 52.64	3.16
	Lacaille 803 . .	10	54.4	56.7	58.0	8.4	9.5	10.7	12.0	13.1	23.6	24.8	27.0	32 10.75	0.05	21.73	2 31 49.07	2.51
	O. Arg. S. 1738 .	11	44.6	46.9	48.0	58.6	59.7	1.0	2.2	3.4	14.0	15.2	17.4	35 1.00	0.05	21.73	2 34 39.32	2.47
	Weisse 639 . .	12	. .	7.9	8.9	18.7	19.7	21.0	22.2	23.4	33.2	34.3	. .	38 21.03	0.05	21.73	2 37 59.35	3.05
	Weisse (2) 972 .	13	2.5	4.8	6.0	16.6	17.8	19.2	20.3	21.6	32.2	33.4	35.6	41 19.09	0.06	21.73	2 40 57.42	3.14
	β Fornacis . . .	14	40.6	43.2	44.5	55.9	57.0	58.4	59.9	1.1	12.7	13.8	16.4	43 58.50	0.05	21.73	2 43 36.82	2.15
	Weisse 789 . .	15	51.4	53.6	54.8	4.6	5.6	. .	8.1	9.2	19.0	20.2	22.3	47 6.88	0.05	21.73	2 46 45.20	3.06
	* + 38° 5′ . . .	16	47.5	50.2	51.6	3.8	5.1	6.5	8.0	9.5	21.6	23.1	25.7	50 6.60	0.07	21.73	2 49 44.94	3.21
	O. Arg. S. 1977 .	17	7.4	9.7	10.9	20.8	21.9	. .	24.4	25.7	35.7	36.8	39.0	56 23.23	0.05	21.72	2 56 1.56	2.50
	* − 26° 17′ . .	18	6.9	9.2	10.3	21.0	22.2	23.6	24.8	26.0	36.7	38.0	40.3	59 23.55	0.05	21.72	2 59 1.88	2.27
	Lalande 5834 . .	19	5.2	7.8	9.2	21.5	22.6	24.2	25.7	26.9	39.0	40.4	43.0	3 24.14	0.07	21.72	3 3 2.49	2.27
	Weisse 90 . . .	20	15.6	17.9	18.9	28.6	29.6	30.8	32.0	33.1	43.0	44.1	46.1	6 30.88	0.05	21.72	3 6 9.21	2.70
	Weisse (2) 173 .	21	19.8	22.5	23.7	36.1	37.4	38.9	40.5	41.8	54.1	55.6	58.2	9 38.96	+ 0.07	21.72	3 9 17.31	3.27
	O. Arg. S. 2189 .	†22	26.6	27.8	29.2	30.6	32.7	. .	56.2	38.8	40.1	41.4	42.7	13 4.61	− 0.32	21.72	3 12 42.57	2.42
	O. Arg. S. 2190 .	23	48.7	51.2	52.4	2.4	3.6	4.6	5.7	6.9	17.0	18.4	20.6	13 4.68	+ 0.05	21.72	3 12 43.01	2.42
	Weisse 299 . .	24	14.7	16.9	17.9	27.7	28.8	30.0	31.2	32.3	42.0	43.1	45.2	18 29.98	0.05	21.72	3 18 8.31	2.98
	66 Arietis	25	43.3	45.4	46.5	56.4	57.3	58.4	59.6	0.7	10.3	11.5	13.5	20 58.45	0.05	21.72	3 20 36.78	2.97
	* + 37° 2′ . .	26	31.2	33.8	35.2	47.3	48.5	50.0	51.6	52.8	5.0	6.3	8.9	23 50.05	0.07	21.72	3 23 28.40	3.31
	Weisse 456 . .	27	9.7	11.7	12.8	22.6	23.6	24.9	26.1	27.1	36.8	37.8	40.0	26 24.84	+ 0.05	21.72	3 26 3.17	2.63
	* + 38° 42′ . .	†28	48.9	50.1	52.1	53.6	56.2	. .	13.2	16.2	17.9	19.5	21.1	32 34.88	− 0.37	21.72	3 32 12.79	3.35
	* + 38° 42′ . .	29	15.7	18.4	19.9	32.2	33.5	35.0	36.6	37.8	50.0	51.5	54.2	32 34.96	+ 0.07	21.72	3 32 13.31	3.35
	Rumker 945 . .	30	1.7	3.9	5.3	15.6	16.7	18.0	19.4	20.5	31.0	32.4	34.6	36 18.10	0.06	21.72	3 35 56.44	3.20
	4 Pleiadum . . .	31	7.8	9.9	11.2	21.6	22.7	24.0	25.4	26.5	37.0	38.2	40.4	38 24.06	0.06	21.72	3 38 2.40	3.20
	33 Pleiadum . . .	32	43.7	46.0	47.1	57.9	58.9	0.2	1.5	2.6	13.1	14.2	16.6	42 0.16	0.06	21.72	3 41 38.50	3.20
	* − 19° 8′ . .	33	27.9	30.0	31.2	41.5	42.5	43.7	44.9	46.0	56.3	57.5	59.6	44 43.74	0.05	21.71	3 44 22.08	2.30
	τ^8 Eridani . . .	34	13.7	16.0	17.3	27.9	28.9	30.3	31.6	32.7	43.5	44.6	46.9	48 30.31	0.05	21.71	3 48 8.65	2.08
	γ Eridani . . .	35	1.6	3.8	4.9	14.8	15.8	17.0	18.3	19.4	29.3	30.4	32.6	52 17.08	0.05	21.71	3 51 55.42	2.45
27	Weisse (2) 363 .	36	24.8	27.4	28.7	40.6	41.7	43.1	44.6	45.9	57.9	59.3	1.7	18 43.25	0.07	21.60	23 18 21.72	3.18
	B. A. C. 8175 . .	37	21.3	23.5	24.6	34.5	35.5	36.8	37.9	38.8	48.8	49.9	52.1	21 36.70	0.05	21.60	23 21 15.15	3.97
	b^3 Aquarii . . .	38	54.1	56.3	57.5	8.0	9.1	10.4	11.7	12.8	. .	. .	. .	25 4.99	+ 5.42	21.60	23 24 48.81	4.07
	B. A. C. 8196 . .	39	. .	. .	. .	30.0	31.2	33.5	49.8	52.5	53.8	55.2	56.6	25 45.32	− 27.99	21.60	23 24 55.73	4.07
	ι Piscium . . .	40	18.6	20.9	21.9	31.6	32.6	33.8	34.8	36.0	45.6	46.8	48.8	33 33.76	+ 0.05	21.60	23 33 12.21	3.70
	* + 34° 18′ . .	†41	. .	. .	. .	. .	. .	. .	26.9	30.0	31.5	32.9	34.4	47 31.14	− 40.67	21.60	23 46 28.87	3.16
	1 Ceti	42	41.8	44.0	45.3	55.3	56.4	57.6	58.8	59.9	9.9	11.1	13.3	51 57.58	+ 0.05	21.60	23 51 36.03	3.78
	O. Arg. S. 23176 .	43	28.0	30.2	31.4	41.5	42.5	43.9	44.9	46.2	56.5	57.4	59.5	53 43.82	0.05	21.60	23 53 22.27	3.79
	Weisse 1196 . .	44	56.5	58.5	59.7	9.4	10.4	11.6	12.9	14.0	23.8	24.8	26.8	59 11.67	+ 0.05	21.60	23 58 50.12	3.68
	Weisse 1227 . .	45	. .	. .	. .	14.2	15.2	17.3	33.1	35.5	36.7	38.0	39.3	1 28.66	− 26.52	21.60	0 0 40.54	3.68
	Lacaille 1 . . .	46	3.9	6.8	8.4	21.9	23.2	25.0	26.4	28.0	41.3	42.8	45.6	6 24.85	+ 0.07	21.60	0 6 3.32	3.78
	* + 7° 26′ . .	47	27.0	29.2	30.4	40.0	41.0	42.4	43.5	44.6	54.3	55.3	57.4	9 42.28	+ 0.05	21.60	0 9 20.73	3.48
	36 Piscium . . .	48	. .	. .	. .	9.3	10.2	11.6	12.7	13.8	23.5	24.6	26.6	10 16.54	− 4.97	21.60	0 9 49.97	3.48
	* + 44° 12′ . .	49	46.5	49.4	51.0	4.4	5.8	7.4	9.2	10.7	24.3	25.7	28.4	15 7.53	+ 0.07	21.60	0 14 46.00	2.90
	* + 44° 14′ . .	50	. .	. .	. .	. .	. .	. .	39.8	43.0	44.9	46.6	48.4	16 44.54	− 46.90	−21.60	0 15 36.04	+ 2.90

22. Northward.
28. Northward.
41. Faint.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Nov. 27, 1.8	− 21.61	− 0.004	0.00	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Nov. 27	* + 1° 8′	1	. .	. .	. .	4.1	5.2	6.5	7.6	8.7	18.3	19.4	21.3	21 11.39	− 4.93	−21.60	0 20 44.86	+ 3.47
Y.	Rumker, N. F. 235	2	23.7	25.8	26.9	36.6	37.7	38.8	40.0	41.1	50.8	51.8	53.8	29 38.82	+ 0.05	21.60	0 29 17.27	3.44
	Weisse 503	3	33.8	35.9	37.0	46.7	47.7	48.9	50.1	51.1	0.9	1.9	3.8	30 48.89	+ 0.05	21.60	0 30 27.34	3.44
	* + 2° 3′	4	. .	. .	. .	48.4	49.5	51.4	6.6	9.0	10.2	11.5	12.7	36 2.41	− 25.97	21.61	0 35 14.83	3.42
	Weisse 762	5	40.8	42.8	43.9	53.6	54.6	55.8	57.0	58.1	7.7	8.7	10.8	44 55.80	+ 0.05	21.61	0 44 34.24	3.38
	Weisse 802	6	50.0	52.1	53.2	3.0	4.0	5.1	6.2	7.3	17.0	18.1	20.2	47 5.11	0.05	21.61	0 46 43.55	3.34
	* + 1° 47′	7	21.0	23.1	24.3	33.7	34.7	36.0	37.2	38.2	48.0	48.9	50.9	51 36.00	0.05	21.61	0 51 14.44	3.32
	* + 1° 55′	8	24.2	26.3	27.3	37.2	38.1	39.3	40.5	41.5	51.0	52.1	54.3	52 39.25	0.05	21.61	0 52 17.69	3.32
	* + 3° 43′	9	35.1	37.4	38.5	48.0	49.1	50.3	51.5	52.6	2.4	3.3	5.3	55 50.32	0.05	21.61	0 55 28.76	3.35
	β Andromedæ	10	27.7	30.5	31.7	43.5	44.5	46.0	47.6	48.8	0.6	1.9	4.4	2 46.11	0.06	21.61	1 2 24.56	3.04
	Weisse 139	11	39.2	41.3	42.4	52.0	53.0	54.2	55.4	56.6	6.1	7.2	9.3	10 54.25	+ 0.05	21.61	1 10 32.69	− 3.24
	Polaris	12	. .	. .	. .	. .	. .	4.0	53.5	37.0	. .	. .	. .	12 51.50	− 45.08	21.61	. . . . .	− 27.17
	θ Ceti	13	34.7	36.9	38.0	47.7	48.7	49.8	51.0	52.2	1.8	3.0	5.1	17 49.90	+ 0.05	21.61	1 17 28.34	+ 3.17
	Lalande 2936	14	57.4	0.1	1.5	13.6	15.0	16.6	18.0	19.4	31.5	32.9	35.4	30 16.49	0.07	21.61	1 29 54.95	3.07
	* + 37° 36′	15	24.5	27.1	28.5	40.6	41.9	43.6	44.9	46.3	58.5	59.8	2.4	33 43.46	0.07	21.61	1 33 21.92	3.02
	* + 5° 5′	16	4.3	6.4	7.5	17.3	18.2	19.5	20.8	21.7	31.4	32.3	34.5	36 19.45	0.05	21.61	1 35 57.89	3.15
	* + 38° 6′	17	10.7	13.5	14.6	26.9	28.1	29.7	31.2	32.6	44.9	46.2	48.8	39 29.75	0.07	21.61	1 39 8.21	3.09
	Lalande 3344	18	9.4	11.7	12.9	22.7	23.7	24.9	26.2	27.2	37.0	38.2	40.4	43 24.94	0.05	21.61	1 43 3.38	3.15
	Weisse 843	19	54.6	56.6	57.7	7.4	8.3	9.5	10.7	11.8	21.4	22.3	24.5	48 9.53	0.05	21.61	1 47 47.97	3.07
	47 Cassiopeæ	20	. .	. .	. .	21.4	25.8	31.6	36.6	41.2	. .	. .	. .	52 31.32	0.21	21.61	1 52 9.92	1.20
	15 Arietis	21	27.9	30.2	31.4	41.6	42.7	43.9	45.1	46.2	56.5	57.6	59.8	3 43.00	0.05	21.61	2 3 22.34	3.13
	Weisse 81	22	21.5	23.7	25.0	. .	. .	. .	. .	. .	48.7	49.9	52.0	7 36.80	0.05	21.61	2 7 15.24	3.07
	* + 55° 18′	23	5.3	8.8	10.7	27.9	29.7	31.8	33.8	35.6	52.7	54.6	58.3	11 31.75	0.09	21.61	2 11 10.23	2.35
	B. A. C. 750	24	15.6	17.7	18.8	28.7	29.6	30.9	32.0	33.1	42.9	43.9	46.1	19 30.85	0.05	21.61	2 19 9.29	3.06
	14 Trianguli	25	10.4	13.0	14.3	26.2	27.3	28.9	30.3	31.6	43.6	44.8	47.3	24 28.88	0.07	21.61	2 24 7.34	3.15
	Lalande 4784	26	50.0	52.5	. .	6.2	7.4	9.0	10.6	11.9	. .	25.5	28.1	29 9.02	0.07	21.61	2 28 47.48	3.16
	δ Ceti	27	52.9	54.9	56.0	5.6	6.6	7.8	8.9	10.0	19.8	20.8	22.8	33 7.83	0.05	21.61	2 32 46.27	2.92
	γ Ceti	28	37.5	39.7	40.8	50.4	51.4	52.7	53.9	54.9	4.5	5.5	7.4	36 52.61	0.05	21.61	2 36 31.05	2.94
	Lalande 5115	29	34.0	36.8	38.3	50.6	51.9	53.6	55.0	56.5	8.8	10.0	12.8	39 53.48	0.07	21.61	2 39 31.94	3.15
	17 Persei	30	30.9	33.4	34.8	46.3	47.4	48.9	50.4	51.8	3.4	4.7	7.3	43 49.03	0.06	21.61	2 43 27.48	3.18
	* + 25° 36′	31	. .	59.1	0.2	11.0	12.1	13.4	14.8	15.9	26.5	27.7	. .	48 13.41	0.06	21.61	2 47 51.86	3.15
	Weisse 872	32	. .	35.9	37.0	46.7	47.8	49.0	50.1	51.2	0.9	1.1	. .	50 48.86	0.05	21.61	2 50 27.30	2.[illegible]
	Weisse 970	33	47.3	49.4	50.6	0.1	1.1	2.4	3.5	4.6	14.2	15.3	17.4	56 2.35	0.05	21.61	2 55 40.79	2.75
	Lalande 5682	34	16.5	19.2	20.6	33.0	34.2	35.7	37.0	38.6	50.6	52.0	54.8	58 35.65	0.07	21.61	2 58 14.11	3.23
	* + 13° 46′	35	0.4	2.5	3.7	13.6	14.6	15.8	17.0	18.1	28.0	29.3	31.4	1 15.85	+ 0.05	21.61	3 0 54.29	3.04
	Lalande 5834	36	. .	. .	. .	21.2	22.6	24.0	25.5	26.8	39.0	40.4	42.8	3 30.29	− 6.21	21.62	3 3 2.46	3.24
	Weisse 90	37	15.6	17.9	18.9	28.6	29.6	30.9	32.1	33.2	42.2	43.9	46.0	6 30.81	+ 0.05	21.62	3 6 9.24	2.64
	τ^2 Arietis	38	18.9	21.2	22.5	32.7	33.9	35.1	36.3	37.4	47.7	48.8	51.0	15 35.05	0.05	21.62	3 15 13.48	3.11
	* − 18° 56′	39	30.7	32.9	34.0	44.2	45.2	46.4	47.7	48.8	59.0	0.1	2.2	18 46.47	0.05	21.62	3 18 24.90	2.30
	* + 5° 29′	40	47.1	49.3	50.5	0.0	1.1	2.2	3.4	4.5	14.0	15.3	17.4	23 2.25	0.05	21.62	3 22 40.68	2.[illegible]
	Weisse 456	41	9.7	11.7	12.8	22.7	23.7	24.8	25.9	26.9	36.8	38.0	40.1	26 24.83	0.05	21.62	3 26 3.26	2.12
	* − 9° 4′	42	. .	45.6	46.7	56.4	57.5	58.6	59.7	0.8	10.7	11.7	. .	29 58.63	0.05	21.62	3 29 37.06	2.09
	B. A. C. 1123	43	39.8	42.6	43.9	55.9	57.2	58.7	0.2	1.5	13.6	14.8	17.5	32 58.70	0.07	21.62	3 32 37.15	3.32
	Rumker 945	44	1.7	3.8	5.0	15.7	16.9	18.1	19.5	20.5	31.0	32.3	34.5	36 18.09	0.05	21.62	3 35 56.52	3.17
	4 Pleiadum	45	59.8	2.0	3.2	13.7	14.8	16.0	17.2	18.6	29.1	30.1	32.6	38 16.10	0.05	21.62	3 37 54.53	3.17
	* − 19° 8′	46	27.8	30.0	31.1	41.4	42.3	43.6	44.8	46.0	56.1	57.2	59.6	44 43.63	+ 0.05	21.62	3 44 22.06	2.17
	Weisse 878	47	. .	. .	. .	46.1	47.2	48.3	49.5	50.8	0.6	1.7	3.8	46 53.50	− 5.10	21.62	3 46 26.78	3.05
	* + 19° 42′	48	22.2	24.8	25.6	35.8	37.0	38.2	39.5	40.7	50.8	51.9	54.2	49 38.21	+ 0.05	21.62	3 49 16.64	3.13
	γ Eridani	49	. .	3.7	4.7	14.8	15.8	17.0	18.2	19.3	29.3	30.4	. .	52 17.02	0.05	21.62	3 51 55.45	2.43
	* − 22° 38′	50	37.6	39.9	41.0	51.6	52.6	54.0	55.1	56.3	6.8	7.8	10.0	55 53.88	0.05	21.62	3 55 32.31	2.13
	50 Persei	51	56.1	58.7	0.3	12.4	13.5	15.0	16.6	17.9	30.1	31.4	34.2	0 15.11	+ 0.07	−21.62	3 59 53.56	+ 3.41

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
Nov. 27, 1.8	− 21.61	− 0.004	0.00	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.			Observed R. Ascension.	Reduct'n to 1870.0	
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.		Clock.			
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.		m. s.	s.	h. m. s.		s.
Nov. 30 Y.	π Aquarii . . .	1	29.0	31.1	32.4	41.9	42.8	44.0	45.4	46.3	55.9	56.9	59.0	18 44.96	+	0.05	−10.03	22 18 34.08	+	4.19
	* − 29° 24′ . .	†2	54.0	56.5	57.7	9.0	10.0	11.5	12.7	13.9	25.1	26.0	28.7	22 11.37	+	0.03	10.03	22 22 1.37		4.88
	Weisse 658 . .	3	. .	. .	. .	0.9	2.0	3.1	4.3	5.4	15.0	16.0	18.3	32 8.12	−	4.97	10.04	22 31 53.11		3.96
	Lalande 44661 .	4	20.6	22.8	24.0	33.9	35.0	36.0	37.2	38.5	48.5	49.5	51.6	43 36.15	+	0.04	10.04	22 43 26.15		4.34
	* + 39° 3′ . .	5	39.4	42.0	43.6	55.8	57.1	58.9	0.2	1.7	14.0	15.4	17.9	45 58.73		0.11	10.04	22 45 48.80		3.20
	* − 6° 10′ . .	6	44.8	46.9	48.0	57.6	58.7	0.0	1.1	2.1	11.9	13.0	15.1	57 59.93		0.04	10.05	22 57 49 92		4.08
	O. Arg. S. 22691 .	7	18.2	20.2	21.5	31.6	32.6	33.8	35.0	36.2	46.3	47.4	49.5	7 33.85		0.04	10.05	23 7 23.84		4.20
	Lacaille 9429 . .	8	57.9	0.4	1.8	12.6	13.8	15.4	16.6	17.7	28.8	30.0	32.3	10 15.21	+	0.03	10.06	23 10 5.18		4.37
	* − 39° 9′ . . .	9	. .	. .	. .	45.5	46.6	48.1	49.6	51.2	3.4	4.7	7.8	12 54.61	−	6.39	10.06	23 12 38.16		4.54
	* − 39° 9′ . . .	10	. .	. .	. .	52.4	53.8	56.6	16.3	19.5	21.0	22.4	24.1	14 10.76	−	33.52	10.06	23 13 27.18		4.53
	ν Pegasi	11	43.9	46.0	47.4	57.7	58.7	0.1	1.4	2.7	13.0	14.1	16.5	19 0.14	+	0.07	10.06	23 18 50.15		3.50
	Weisse (2) 457 .	12	. .	. .	. .	42.8	44.1	46.8	6.4	9.5	11.0	12.6	14.3	23 0.94	−	33.31	10.06	23 22 17.57		3.14
	* + 34° 14′ . .	13	49.8	52.3	53.6	5.3	6.4	7.9	9.3	10.5	22.4	23.6	26.0	26 7.92	+	0.10	10.06	23 25 57.96		3.24
	Weisse 1045 . .	14	34.8	36.9	38.0	47.7	48.6	49.8	51.0	52.0	1.9	2.9	4.9	51 49.86	+	0.05	10.08	23 51 39.83		3.62
	Lalande 47049 .	15	. .	. .	. .	27.7	29.0	30.5	31.9	33.4	45.6	46.8	49.5	53 36.80	−	6.21	10.08	23 53 20.51		3.11
	Weisse 1227 . .	16	35.1	37.3	38.4	48.2	49.2	50.5	51.7	52.8	2.7	3.8	5.8	0 50.50	+	0.04	10.08	0 0 40.46		3.71
	Weisse 1250 . .	17	. .	. .	. .	46.4	47.4	48.6	49.6	50.7	0.4	1.4	3.5	1 53.50	−	4.93	10.08	0 1 38.49		3.59
	B. A. C. 23 . .	†18	47.4	49.5	50.9	2.0	3.1	4.5	5.7	7.0	18.0	19.1	21.5	5 4 43	+	0.03	10.08	0 4 54.38		3.77
	Lamont 21 . . .	19	15.8	17.8	19.0	28.6	29.6	30.8	31.9	33.0	42.8	43.8	45.8	7 30.81		0.05	10.08	0 7 20.78		3.59
	Lalande 231 . .	20	55.2	57.8	59.2	11.7	12.7	14.4	15.9	17.4	29.8	31.1	33.8	9 14.45		0.11	10.08	0 9 4.48		3.08
	* + 44° 12′ . .	21	34.8	38.0	39.6	52.8	54.4	56.0	57.6	59.0	12.6	14.0	16.7	14 55.95	+	0.12	10.09	0 14 45.98		2.95
	* − 36° 27′ . .	22	. .	. .	. .	30.2	31.5	34.0	53.3	55.9	57.4	59.0	0.8	23 47.76	−	32.32	10.09	0 23 5.35		3.60
	ζ Cassiopeæ . . .	23	26.8	30.2	32.2	47.9	49.7	52.0	53.8	55.5	11.7	13.4	16.8	29 51.82	+	0.15	10.09	0 29 41.88		2.70
	Lacaille 162 . .	24	21.8	24.6	25.9	37.6	38.6	40.2	41.6	42.8	54.7	56.0	58.5	33 40.21		0.03	10.09	0 33 30.15		3.47
	β Ceti	25	54.5	56.6	57.8	7.8	8.9	10.3	11.6	12.7	22.8	24.0	26.1	37 10.28		0.04	10.10	0 37 0.22		3.47
	Lacaille 223 . .	26	39.3	41.8	43.0	53.8	54.8	56.1	57.5	58.6	9.2	10.4	12.5	42 56.09		0.03	10.10	0 42 46.02		3.40
	O. Arg. S. 452 .	27	26.8	29.2	30.4	40.8	42.0	43.4	44.7	45.7	56.5	57.6	59.8	43 43.35		0.03	10.10	0 43 33.28		3.39
	O. Arg. S. 485 .	28	39.4	41.8	43.0	53.8	55.0	56.3	57.4	58.6	9.3	10.4	12.8	46 56.16		0.03	10.10	0 46 46.09		3.36
	B. A. C. 263 . .	29	5.2	7.6	8.8	19.4	20.6	21.9	23.3	24.5	35.3	36.4	38.7	50 21.97		0.08	10.10	0 50 11.95		3.22
	Rumker N. F., 451	30	48.2	50.2	51.2	0.9	1.8	3.0	4.3	5.3	15.0	16.1	18.1	53 3.10		0.05	10.10	0 52 53.05		3.34
	* + 3° 43′ . . .	31	48.5	50.6	51.7	1.3	2.2	3.4	4.8	5.7	15.4	16.5	18.6	56 3.52		0.05	10.11	0 55 53.46		3.32
	Lacaille 303 . .	32	40.1	42.4	43.5	54.1	55.2	56.6	58.0	59.1	9.7	10.9	13.0	59 56.60		0.03	10.11	0 59 46.52		3.25
	Weisse 138 . .	33	20.5	22.6	23.6	33.2	34.1	35.4	36.7	37.7	47.3	48.3	50.4	10 35.44	+	0.05	10.11	1 10 25.38	+	3.26
	Polaris . . .	†34	. .	. .	. .	. .	. .	49.0	39.0	21.0	. .	. .	. .	12 36.33	−	42.92	10.11	. . . .	−	25.67
	δ Cassiopeæ . . .	35	57.7	1.7	3.7	23.1	25.0	27.2	29.7	31.7	50.8	52.8	56.9	17 27.30	+	0.19	10.11	1 17 17.38	+	2.60
	B. A. C. 439 . .	36	16.0	18.3	19.3	29.3	30.3	31.6	32.9	33.9	44.0	45.1	47.3	21 31.64		0.07	10.12	1 21 21.59		3.21
	B. A. C. 454 . .	37	42.0	44.2	45.4	. .	. .	. .	. .	. .	9.5	10.5	12.7	24 57.38		0.06	10.12	1 24 47.32		3.21
	B. A. C. 464 . .	38	21.2	23.4	24.5	34.0	35.1	36.4	37.6	38.7	48.4	49.4	51.4	26 36.37		0.06	10.12	1 26 26.31		3.20
	Lalande 2936 . :	39	46.0	48.6	50.0	2.1	3.3	4.9	6.5	7.6	20.0	21.3	24.0	30 4.94		0.11	10.12	1 29 54.93		3.10
	* + 37° 36′ . .	40	13.1	15.6	17.0	29.1	30.3	32.0	33.5	34.7	46.9	48.4	50.9	33 31.95		0.11	10.12	1 33 21.94		3.10
	* + 5° 5′ . .	41	52.7	54.8	56.1	5.6	6.7	7.8	9.0	10.1	19.8	20.9	22.9	36 7.85		0.05	10.12	1 35 57.78		3.16
	Lacaille 509 . .	42	49.8	52.3	53.5	4.5	5.6	6.9	8.2	9.5	20.7	21.9	24.2	39 7.01		0.03	10.13	1 38 56.91		2.83
	* + 13° 52′ . .	43	51.4	53.8	54.9	4.8	5.7	7.0	8.1	9.2	19.3	20.4	22.4	43 7.00		0.06	10.13	1 42 56.93		3.16
	O. Arg. S. 1127 .	44	. .	22.7	23.9	34.0	35.1	36.2	37.4	38.5	48.6	49.8	. .	45 36.24		0.04	10.13	1 45 26.15		2.96
	Weisse 1043 . .	45	31.0	33.1	34.4	44.3	45.3	46.5	47.7	48.8	58.7	59.8	1.8	59 46.49	+	0.06	10.13	1 59 36.42		3.13
	* + 38° 58′ . .	46	. .	. .	. .	. .	. .	. .	51.0	54.2	55.9	57.3	59.1	2 55.50	−	43.17	10.14	2 2 2.19		3.12
	Weisse 51 . . .	47	. .	. .	. .	18.8	19.8	21.0	22.2	23.2	32.8	33.9	35.9	5 25.95	−	4.94	10.14	2 5 10.87		3.06
	Weisse 155 . .	48	40.7	42.9	44.0	53.8	54.9	56.1	57.3	58.3	8.2	9.3	11.4	11 56.08	+	0.06	10.14	2 11 46.00		3.09
	Weisse 288 . .	49	28.2	30.3	31.4	41.2	42.1	43.3	44.5	45.6	55.3	56.3	58.5	18 43.34		0.04	10.14	2 18 33.24		2.91
	* + 36° 44′ . .	50	58.3	0.8	2.2	14.3	15.5	16.9	18.5	19.8	31.8	33.1	35.6	21 16.98		0.10	10.15	2 21 6.93		3.15
	Weisse (2) 545 .	51	37.2	39.9	41.2	53.3	54.5	56.1	57.7	59.0	11.1	12.6	15.0	23 56.15	+	0.10	−10.15	2 23 46.10	+	3.16

2. A large star to northward.
18. Blurred.
34. Unsteady and blurred.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Nov. 30, 1.1	− 10.11	− 0.028	+ 0.05	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT. I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	CORRECTIONS.	Inst.	Clock.	Observed R. Ascension.		Reduct'n to 1870.0.
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.		m. s.	s.	h. m. s.		s.
Nov. 30	Lalande 4784 : :	1	38.4	41.1	42.5	54.6	56.0	57.5	59.2	0.4	12.7	14.0	16.6	28 57.55	+	0.11	−10.15	2 28 47.51	+	3.16
Y.	Weisse 575 . .	2	10.3	12.4	13.7	23.6	24.6	25.8	27.0	28.2	38.1	39.2	41.5	34 25.85		0.06	10.15	2 34 15.76		3.07
	γ Ceti	3	26.1	28.2	29.3	39.0	40.1	41.2	42.3	43.4	53.1	54.1	56.0	36 41.16		0.05	10.15	2 36 31.06		2.94
	Lalande 5112 . .	4	9.1	11.6	13.0	24.9	26.2	27.8	29.4	30.6	42.7	44.1	46.7	39 27.83		0.10	10.15	2 39 17.78		3.15
	Weisse 1038 . .	5	13.7	16.0	17.1	27.0	28.1	29.3	30.5	31.7	41.6	42.7	44.8	43 29.32		0.06	10.16	2 43 19.22		3.06
	* + 25° 34′ . .	6	45.2	47.5	48.8	59.5	0.6	1.9	3.2	4.3	15.1	16.2	18.6	48 1.90		0.08	10.16	2 47 51.82		3.14
	Weisse 872 . .	7	22.4	24.6	25.7	35.3	36.2	37.5	38.7	39.7	49.5	50.4	52.5	50 37.50	+	0.05	10.16	2 50 27.39		2.87
	(* 132) Washington	†8	. .	. .	. .	45.4	46.4	47.6	48.9	49.9	59.9	0.9	3.2	52 52.78	−	5.06	10.16	2 52 37.56		3.04
	O. Arg. S. 2000 .	9	51.8	54.0	55.1	5.3	6.3	7.6	8.9	10.0	20.0	21.2	23.4	58 7.60	+	0.04	10.16	2 57 57.48		2.50
	ζ Arietis	10	16.9	19.2	20.4	30.6	31.6	32.9	34.2	35.4	45.6	46.8	49.0	7 32.96		0.07	10.17	3 7 22.86		3.11
Dec. 1	ω Piscium . . .	11	30.0	32.1	33.2	42.9	43.9	45.2	46.4	47.4	57.0	58.1	0.2	52 45.13	+	0.04	10.61	23 52 34.56		3.62
	Lalande 47049 .	12	. .	. .	. .	46.2	47.5	50.2	9.5	12.5	14.1	15.7	17.3	54 4.12	−	33.07	10.61	23 53 20.44		3.13
	Weisse 1196 . .	13	45.4	47.5	48.6	58.4	59.3	. .	1.8	2.8	12.8	13.9	15.9	59 0.64	+	0.07	10.61	23 58 50.10		3.73
	Weisse 1218 . .	14	. .	6.2	7.2	17.0	18.1	19.2	20.4	21.4	31.2	32.2	. .	0 19.21	+	0.05	10.61	0 0 8.65		3.62
	Weisse 10 . . .	15	. .	. .	. .	54.2	55.2	56.4	57.6	58.6	8.3	9.3	11.2	3 1.35	−	4.93	10.61	0 2 45.81		3.59
	Weisse 44 . . .	16	51.5	53.6	54.7	4.4	5.5	6.6	7.8	8.8	18.5	19.5	21.6	4 6.59	+	0.05	10.61	0 3 56.03		3.59
	Lacaille 9 . . .	17	58.5	1.0	2.3	13.2	14.2	15.5	16.8	18.0	29.0	30.1	32.3	7 15.54	+	0.10	10.62	0 7 5.02		3.77
	* + 37° 29′ . .	18	. .	53.5	54.8	7.8	8.5	10.0	11.5	12.9	25.0	26.3	. .	10 10.03	−	0.01	10.62	0 9 59.40		3.13
	Lalande 489 . .	19	2.1	4.8	6.2	18.4	19.7	21.2	22.7	24.0	36.3	37.6	40.4	18 21.22		0.01	10.62	0 18 10.59		3.10
	* + 42° 39′ . .	20	4.8	7.6	9.2	. .	. .	. .	. .	. .	41.5	42.7	45.6	23 25.23		0.01	10.62	0 23 14.60		3.01
	Groombridge 73 .	21	. .	. .	. .	24.8	26.0	27.7	29.3	30.8	. .	. .	. .	23 27.72	−	0.01	10.62	0 23 17.09		3.01
	Weisse (2) 746 .	22	15.2	17.6	18.8	29.5	30.6	32.0	33.3	34.4	45.2	46.5	48.7	30 31.98	+	0.01	10.62	0 30 21.37		3.27
	Lalande 966 . .	23	16.7	19.3	20.8	32.8	33.9	35.5	37.0	38.3	50.6	51.8	54.0	31 35.55	−	0.01	10.62	0 31 24.92		3.11
	58 Piscium . . .	24	. .	. .	. .	19.6	20.7	21.9	23.0	24.2	34.0	35.1	37.1	40 26.95		5.04	10.63	0 40 11.28		3.37
	Lalande 1444 . .	25	. .	. .	. .	54.3	55.5	56.8	58.3	59.7	11.9	13.4	16.0	46 3.24	−	6.33	10.63	0 45 46.26		3.09
	Weisse 918 . .	26	16.7	18.9	20.0	29.6	30.6	31.8	33.0	34.1	43.6	44.7	46.8	53 31.80	+	0.05	10.63	0 53 21.22		3.36
	Weisse 972 . .	27	8.2	10.3	11.5	21.3	22.3	23.4	24.7	25.8	35.5	36.7	38.8	56 23.50		0.04	10.63	0 56 12.91		3.31
	O. Arg. S. 621 .	28	23.6	25.9	27.1	38.0	39.1	40.4	41.6	42.8	53.7	54.9	57.2	59 40.39		0.10	10.63	0 59 29.86		3.24
	* + 2° 5′ . . .	29	22.8	24.9	26.1	. .	. .	. .	. .	. .	49.8	50.9	52.9	2 37.90		0.05	10.63	1 2 27.32		3.39
	Weisse 144 . .	30	25.9	28.0	29.2	39.0	40.1	41.3	42.5	43.6	53.5	54.6	56.7	10 41.31	+	0.03	10.64	1 10 30.70	+	3.26
	Polaris . . .	31	. .	. .	. .	. .	. .	56.0	44.0	26.0	. .	. .	. .	12 42.00	−	48.60	10.64	. . . .	−	25.03
	Weisse 281 . .	32	4.1	6.1	7.3	16.9	17.8	19.3	20.5	21.6	31.0	32.2	34.4	18 19.20	+	0.06	10.64	1 18 8.62	+	3.21
	Weisse 313 . .	33	40.3	42.4	43.7	53.4	54.4	55.7	56.9	58.0	7.6	8.8	10.8	19 55.64		0.03	10.64	1 19 45.03		3.25
	Weisse 375 . .	34	5.7	7.9	9.0	18.5	19.5	20.7	21.9	22.9	32.6	33.7	35.8	23 20.75		0.05	10.64	1 23 10.16		3.20
	B. A. C. 460 . .	35	32.4	35.0	36.2	47.5	48.7	50.0	51.3	52.5	3.8	5.0	7.5	25 49.99		0.11	10.64	1 25 39.46		2.95
	B. A. C. 479 . .	36	44.3	46.9	48.0	59.8	0.8	2.2	3.5	4.7	16.4	17.5	20.0	29 2.19		0.12	10.65	1 28 51.66		2.83
	103 Piscium . . .	37	6.9	9.1	10.4	20.3	21.4	22.5	23.8	24.9	34.8	36.0	38.2	32 22.57		0.03	10.65	1 32 11.95		3.14
	107 Piscium . . .	38	18.1	20.4	21.6	31.7	32.8	34.0	35.3	36.4	46.6	47.8	50.0	35 34.06		0.02	10.65	1 35 23.43		3.15
	109 Piscium . . .	39	41.6	43.7	44.9	55.2	56.1	57.5	58.7	59.8	10.0	11.2	13.3	37 57.45		0.02	10.65	1 37 46.82		3.15
	β Arietis	40	19.0	21.3	22.6	33.0	34.1	35.2	36.6	37.7	47.9	49.0	51.2	47 35.24		0.02	10.65	1 47 24.61		3.17
	Weisse 880 . .	41	. .	18.0	19.2	29.0	30.1	31.3	32.6	33.5	43.3	44.3	. .	50 31.26		0.04	10.65	1 50 20.65		3.13
	* + 3° 27′ . . .	42	7.1	9.3	10.6	20.0	21.1	22.3	23.5	24.5	34.3	35.3	37.3	57 22.30		0.05	10.66	1 57 11.69		3.06
	Lacaille 660 . .	43	3.0	5.7	7.1	19.5	20.7	22.5	23.8	25.2	37.5	38.9	41.5	5 22.31		0.14	10.66	2 5 11.79		2.34
	Weisse 182 . .	44	1.6	3.8	5.0	14.8	15.9	17.2	18.4	19.5	29.4	30.5	32.6	13 17.15		0.03	10.66	2 13 6.52		3.10
	Weisse 278 . .	45	8.8	10.9	12.1	21.7	22.7	23.8	24.9	26.1	35.9	37.0	39.0	18 23.90	+	0.04	10.67	2 18 13.27		3.05
	* + 36° 44′ . .	46	. .	. .	. .	14.9	15.8	17.6	19.0	20.3	32.1	33.6	36.2	21 23.69	−	6.21	10.67	2 21 6.81		3.15
	Weisse (2) 545 .	47	37.6	40.3	41.7	54.0	55.1	56.6	58.1	59.6	11.7	12.9	15.5	23 56.65		0.01	10.67	2 23 45.97		3.16
	B. A. C. 790, (1st*)	48	36.0	37.3	38.8	40.1	42.5	. .	50.9	53.8	55.3	56.7	58.0	28 16.94	−	0.28	10.67	2 28 5.99		2.42
	B. A. C. 790, (2d*)	49	0.1	2.5	3.8	14.8	16.0	17.2	18.6	19.9	30.7	31.9	34.4	28 17.26	+	0.11	10.67	2 28 6.70		2.42
	Weisse 574 . .	50	57.9	0.1	1.3	10.8	11.9	13.1	14.3	15.3	25.1	26.2	28.1	34 13.10	+	0.05	10.67	2 34 2.48		2.57
	O. Arg. S. 1758 .	51	. .	. .	. .	23.6	24.8	26.0	27.3	28.5	39.5	40.7	42.8	36 31.65	−	5.55	−10.67	2 36 15.43	+	2.57

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n.*	*c.*
h.	s.	s.	s.	s.
Dec. 1, 2.5	− 10.67	− 0.023	− 0.09	+ 0.05

8. Faint.

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	s.	s.	h. m. s.	s.
1868. Dec. 1 Y.	Lalande 5115 . .	1	23.3	26.0	27.5	39.8	41.0	42.6	44.1	45.5	58.0	59.3	1.9	39 42.64	− 0.01	−10.67	2 39 31.96	+ 3.18
	* − 34° 20′ . .	2	59.4	1.9	3.2	14.9	16.1	17.6	19.1	20.4	31.9	33.2	35.7	43 17.58	+ 0.12	10.67	2 43 7.03	2.13
	* − 23° 41′ . .	3	47.8	50.0	51.3	1.9	2.9	4.2	5.4	6.7	17.2	18.3	20.5	48 4.20	0.10	10.68	2 47 53.62	2.42
	α Ceti	4	21.8	23.9	25.0	34.6	35.7	36.7	38.0	39.2	48.7	49.8	51.9	55 36.86	0.05	10.68	2 55 26.23	2.92
	Weisse 98 . . .	5	49.6	51.8	52.8	2.7	3.7	4.9	6.1	7.2	17.0	17.9	20.0	7 4.88	0.04	10.68	3 6 54.24	2.98
	* + 14° 37′ . .	6	20.7	23.0	24.2	33.9	35.1	36.4	37.5	38.7	48.7	49.7	51.8	10 36.34	0.03	10.68	3 10 25.69	3.03
	O.Arg.S.2189,(1st *)	†7	37.4	39.6	40.8	. .	. .	. .	. .	. .	5.8	6.9	9.0	12 53.25	0.09	10.69	3 12 42.65	2.41
	O.Arg.S.2189,(2d *)	8	. .	. .	. .	51.2	52.2	53.5	54.7	55.8	. .	. .	. .	12 53.48	0.09	10.69	3 12 42.88	2.41
	B. A. C. 1054 . .	9	32.6	34.8	36.0	46.9	48.0	49.2	50.6	51.6	2.5	3.6	6.0	16 49.25	0.10	10.69	3 16 38.66	2.14
	* − 27° 44′ . .	10	57.6	0.1	1.2	12.3	13.3	14.7	16.0	17.1	28.1	29.3	31.5	20 14.65	0.11	10.69	3 20 4.07	2.10
	B. A. C. 1105 . .	11	. .	3.2	5.0	17.8	19.1	20.7	22.3	23.8	36.5	38.1	. .	29 20.72	0.01	10.69	3 29 10.02	3.32
	16 Tauri	12	55.7	58.2	59.3	9.9	11.0	12.3	13.5	14.6	25.3	26.3	28.5	37 12.24	0.02	10.70	3 37 1.56	3.15
	η Tauri	13	36.8	39.1	40.2	50.7	51.7	53.0	54.3	55.5	6.0	7.1	9.3	39 33.06	0.02	10.70	3 39 42.38	3.15
	Weisse 878 .	14	21.7	24.0	25.4	35.2	36.2	37.5	38.7	39.7	49.6	50.8	52.9	46 37.43	0.03	10.70	3 46 26.76	3.02
	* + 19° 42′ . .	15	11.4	13.5	14.7	25.0	26.1	27.3	28.4	29.7	40.0	41.1	43.2	49 27.31	+ 0.02	10.70	3 49 16.63	3.10
	Lalande 7391 . .	16	36.8	39.5	40.9	53.3	54.6	56.1	57.5	58.8	11.3	12.7	15.1	53 56.05	− 0.01	10.70	3 53 45.34	3.36
	Weisse 1092 . .	17	58.1	0.2	1.4	11.2	12.3	13.5	14.7	15.8	25.7	26.8	28.8	57 13.50	+ 0.03	10.70	3 57 2.83	2.98
	50 Persei	18	45.3	48.0	49.2	1.6	2.8	4.3	5.8	6.1	19.3	20.6	23.1	0 4.19	− 0.01	10.70	3 59 53.48	3.37
	Weisse 24 . . .	19	12.5	14.8	15.9	25.8	26.9	28.0	29.2	30.3	40.3	41.4	43.5	3 28.05	+ 0.03	10.71	4 3 17.37	3.06
	Weisse 114 . .	20	11.7	13.8	14.9	24.9	25.9	27.0	28.2	29.2	39.1	40.1	42.3	7 27.01	0.07	10.71	4 7 16.37	2.45
	A Eridani . . .	21	5.5	7.7	8.7	18.6	19.6	20.7	21.9	23.1	32.8	33.8	36.0	8 20.76	+ 0.07	10.71	4 8 10.12	2.45
	Lalande 7994 . .	22	38.3	40.8	42.4	54.5	55.8	57.2	58.7	59.9	12.2	13.5	16.1	10 57.22	− 0.01	10.71	4 10 46.50	3.40
	Weisse 286 . .	23	14.0	16.2	17.4	27.3	28.3	29.5	30.7	31.7	41.8	42.8	44.9	15 29.51	+ 0.03	10.71	4 15 18.83	3.03
	δ² Tauri	24	. .	. .	. .	56.2	57.3	59.4	15.5	18.0	19.2	20.5	21.9	17 11.00	− 27.20	10.71	4 16 33.09	3.08
	ε Tauri	25	53.3	55.6	56.7	7.0	7.9	9.2	10.5	11.6	21.9	22.9	25.0	21 9.24	+ 0.02	10.71	4 20 58.55	3.12
2	14 Andromedæ . .	26	42.8	45.5	46.9	59.0	0.4	2.0	3.6	4.8	17.0	18.6	21.0	25 1.96	0.03	11.05	23 24 50.94	3.18
	ι Piscium . . .	27	8.0	10.0	11.2	20.9	21.8	23.1	24.3	25.4	35.0	36.1	38.2	33 23.09	0.05	11.05	23 33 12.09	3.76
	* − 20° 47′ . .	28	52.9	54.9	56.2	6.5	7.6	8.9	10.1	11.3	21.6	22.7	25.0	52 8.88	+ 0.07	11.05	23 51 57.90	3.88
	Lacaille 9680 . .	29	. .	. .	. .	8.0	9.0	10.1	11.4	12.8	23.3	24.5	26.8	53 15.74	− 5.43	11.05	23 52 59.26	3.91
	85 Pegasi	30	13.9	16.3	17.6	28.3	29.2	30.5	31.8	33.2	43.8	45.0	47.3	55 30.63	+ 0.04	11.05	23 55 19.62	3.36
	4 Ceti	31	56.7	58.9	0.0	9.6	10.5	11.8	12.9	14.1	23.6	24.7	26.8	1 11.78	0.05	11.05	0 1 0.78	3.66
	Lacaille 9737 . .	32	. .	0.4	1.7	13.7	14.8	16.3	17.7	18.9	31.0	32.3	. .	2 16.31	0.09	11.05	0 2 5.35	3.88
	O. Arg. S. 36 . .	33	48.8	50.9	52.3	2.8	3.9	5.1	6.4	7.6	18.0	19.1	21.3	4 5.11	0.07	11.05	0 3 54.13	3.78
	Lacaille 21 . .	34	59.3	1.8	2.1	15.1	16.3	17.8	19.2	20.5	32.5	33.8	36.2	9 17.69	0.09	11.06	0 9 6.72	3.80
	Lacaille 81 . .	35	43.8	46.5	47.9	0.5	1.8	3.5	4.9	6.4	19.0	20.3	23.0	19 3.42	0.10	11.06	0 18 52.46	3.68
	* + 42° 38.5′ . .	†36	5.3	8.0	9.5	. .	. .	. .	. .	. .	41.8	43.3	46.0	23 25.65	0.03	11.06	0 23 14.62	3.03
	* + 42° 39′ . .	37	. .	. .	. .	25.2	26.4	28.3	29.8	31.1	. .	. .	. .	23 28.14	+ 0.03	11.06	0 23 17.11	3.03
	O. Arg. S. 303 . .	38	47.1	48.4	49.8	51.2	53.5	. .	59.8	2.5	3.8	5.3	6.7	30 26.81	− 0.31	11.06	0 30 15.44	3.54
	O. Arg. S. 304 . .	39	13.8	16.2	17.6	28.2	29.2	30.6	31.9	33.0	43.6	44.8	47.0	30 30.54	+ 0.08	11.06	0 30 19.56	3.54
	* − 25° 23′ . .	40	48.2	50.5	51.7	2.4	3.5	4.7	6.0	7.2	17.9	19.0	21.3	32 4.76	0.08	11.06	0 31 53.78	3.53
	β Ceti	41	55.4	57.8	58.9	8.9	10.0	11.3	12.5	13.6	23.7	24.8	27.0	37 11.26	0.07	11.06	0 37 0.27	3.50
	Weisse 772 . .	42	51.9	54.1	55.1	4.8	5.8	7.0	8.2	9.3	18.8	19.8	21.8	45 6.96	0.05	11.06	0 44 55.95	3.40
	B. A. C. 249 . .	43	38.3	40.8	42.2	53.6	54.8	56.2	57.6	58.9	10.6	11.6	14.1	47 56.25	0.09	11.06	0 47 45.28	3.34
	Lalande 1629 . .	44	45.8	48.6	49.9	2.3	3.5	5.1	6.6	7.9	20.3	21.6	24.3	51 5.08	0.03	11.06	0 50 54.05	3.09
	Weisse 950 . .	45	2.1	4.3	5.3	15.0	16.1	17.4	18.5	19.7	29.4	30.5	32.6	55 17.35	0.04	11.07	0 55 6.32	3.33
	Weisse 972 . .	46	8.8	10.9	12.0	21.8	22.9	24.0	25.1	26.2	36.0	37.1	39.2	56 24.00	0.04	11.07	0 56 12.97	3.32
	Weisse (2) 1490 .	47	55.1	57.9	59.1	11.2	12.4	14.2	15.6	16.8	29.0	30.4	33.0	0 14.06	0.03	11.07	1 0 3.02	3.11
	Weisse 144 . .	48	26.4	28.6	29.8	39.5	40.5	41.8	43.0	44.1	54.0	55.1	57.3	10 41.83	+ 0.04	11.07	1 10 30.80	+ 3.26
	Polaris	49	. .	. .	. .	. .	. .	53.0	43.0	24.0	. .	. .	. .	12 40.00	− 46.79	11.07	. . . . .	− 24.42
	O. Arg. S. 818 .	50	8.5	10.8	12.1	23.0	24.2	25.6	26.8	28.0	39.2	40.4	42.8	18 25.58	+ 0.08	11.07	1 18 14.59	+ 3.05
	Weisse 313 . .	51	. .	. .	. .	8.0	9.1	11.2	26.7	29.2	30.5	31.7	33.0	20 22.42	− 26.39	−11.07	1 19 44.96	+ 3.24

7. Northward.
36. Southward.

CORRECTIONS, &c.

Date.	Error of clock.	Hourly rate.	*n*.	*c*.
h.	s.	s.	s.	s.
Dec. 2, 2.0	− 11.08	− 0.013	− 0.04	+ 0.05

DATE.	OBJECT.	Number.	SECONDS OF TRANSIT.												CORRECTIONS.		Observed R. Ascension.	Reduct'n to 1870.0.
			I.	II.	III.	IV.	V.	VI.	VII.	VIII	IX.	X.	XI.	Mean.	Inst.	Clock.		
1868.			s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	m. s.	m. s.	s.	h. m. s.	s.
Dec. 2	B. A. C. 460	1	33.1	35.6	36.7	47.9	49.1	50.5	51.9	53.1	4.5	5.6	8.0	25 50.55	+ 0.08	−11.07	1 25 39.56	+ 2.95
Y.	B. A. C. 482	2	19.7	23.4	25.3	43.1	45.0	47.4	49.5	51.4	9.3	11.4	15.0	29 47.32	0.03	11.07	1 29 36.28	+ 2.77
	B. A. C. 494	3	. .	. .	. .	8.0	23.0	42.0	0.0	15.5	. .	. .	. .	34 41.70	0.15	11.07	1 34 30.78	− 5.56
	* − 36° 46′	4	32.0	34.7	36.0	48.2	49.4	50.8	52.4	53.6	5.8	7.0	9.6	39 50.86	0.09	11.08	1 39 39.87	+ 2.70
	Lalande 3344	5	58.9	1.2	2.4	12.2	13.2	14.5	15.7	16.8	26.5	27.8	29.9	43 14.46	+ 0.04	11.08	1 43 3.42	3.17
	Weisse 800	6	. .	. .	. .	50.4	51.6	53.8	9.3	11.8	13.2	14.5	15.8	46 5.05	− 26.71	11.08	1 45 27.26	3.01
	Lacaille 569	7	7.3	10.0	11.2	23.3	24.6	26.1	27.6	28.8	41.1	42.3	44.8	50 26.10	+ 0.09	11.08	1 50 15.11	2.55
	* + 3° 28′	8	7.7	9.8	11.0	20.7	21.7	22.8	23.9	25.0	34.7	35.7	37.7	57 22.79	0.05	11.08	1 57 11.76	3.00
	* + 52° 26′	†9	. .	27.6	29.6	45.8	47.2	49.1	50.7	52.5	8.8	10.4	. .	2 49.08	0.03	11.08	2 2 38.03	3.02
	Weisse 81	10	11.1	13.2	14.3	24.0	25.1	26.3	27.5	28.5	38.0	39.2	41.3	7 26.23	0.04	11.08	2 7 15.19	3.03
	Weisse 189	11	6.1	7.9	9.1	19.0	20.1	21.3	22.3	23.4	33.2	34.1	36.3	13 21.16	0.06	11.08	2 13 10.14	2.04
	* + 61° 11′	12	56.8	1.3	3.6	23.4	25.5	27.9	30.4	32.7	52.7	54.9	59.1	18 28.03	0.03	11.08	2 18 16.98	2.92
	* + 61° 13′	†13	48.0	51.8	54.3	. .	16.4	19.2	21.7	. .	43.9	46.3	50.2	21 19.09	+ 0.03	11.08	2 21 8.04	2.02
	* + 38° 57′	14	. .	. .	. .	44.0	45.5	47.0	48.6	49.8	2.2	3.6	6.1	24 53.35	− 6.37	11.09	2 24 35.89	3.10
	Lacaille 789	15	30.3	32.7	34.0	45.7	46.8	48.3	49.7	51.0	2.5	3.8	6.3	28 48.28	+ 0.09	11.09	2 28 37.28	2.25
	Weisse 575	16	11.5	13.6	14.7	24.6	25.7	26.9	28.2	29.3	39.2	40.3	42.5	34 26.95	0.04	11.09	2 34 15.90	3.07
	γ Ceti	17	27.0	29.2	30.3	40.0	41.0	42.1	43.2	44.4	54.0	55.1	57.2	36 42.14	0.05	11.09	2 36 31.10	2.05
	Lalande 5112	18	9.9	12.5	14.0	26.0	27.3	28.8	30.3	31.6	43.7	44.9	47.5	39 28.77	0.03	11.09	2 39 17.71	3.15
	Weisse 831	19	27.3	29.5	30.6	40.2	41.1	42.4	43.6	44.7	54.3	55.4	57.4	48 42.41	0.05	11.09	2 48 31.37	2.85
	Weisse 846	20	9.4	11.5	12.7	22.2	23.3	24.5	25.7	26.8	36.4	37.4	39.3	49 24.47	+ 0.05	11.09	2 49 13.43	2.55
	Weisse 853	21	. .	. .	. .	53.6	54.6	56.8	12.0	14.5	15.7	17.0	18.2	50 7.80	− 25.96	11.09	2 49 30.75	2.85
	Lacaille 951	22	35.3	37.8	39.0	50.8	52.0	53.6	54.9	56.1	7.9	9.3	11.8	53 53.50	+ 0.09	11.09	2 53 42.50	2.03
	* − 34° 54′	23	51.2	53.8	55.3	7.1	8.2	9.7	11.1	12.3	24.0	25.2	27.8	59 9.61	0.09	11.09	2 58 58.61	1.97
	Lacaille 988	24	22.8	25.0	26.3	37.5	38.7	40.1	41.5	42.6	54.1	55.3	57.6	2 40.14	0.09	11.09	3 2 29.13	2.10
	Weisse 98	25	50.3	52.5	53.6	3.3	4.4	5.6	6.7	7.8	17.7	18.6	20.7	7 5.56	0.04	11.09	3 6 54.51	2.05
	Lacaille 1026	26	36.0	38.4	39.7	50.6	51.7	53.1	54.5	55.7	6.7	7.9	10.0	9 53.12	0.08	11.09	3 9 42.11	2.12
	B. A. C. 1039	27	47.2	49.5	50.7	1.2	2.4	3.7	4.9	6.1	16.8	17.8	20.0	14 3.66	0.07	11.10	3 13 52.63	2.24
	Weisse (2) 528	28	25.8	28.4	29.9	42.0	43.2	44.9	46.4	47.7	59.7	1.3	3.9	26 44.84	0.03	11.10	3 26 33.77	3.25
	* + 38° 42′	29	37.4	40.0	41.3	53.7	55.0	56.5	58.0	59.4	11.7	13.0	15.8	31 56.53	0.03	11.10	3 31 45.46	3.30
	B. A. C. 1165	30	37.0	39.4	40.6	51.0	52.2	53.6	54.8	56.0	6.5	7.7	9.9	39 53.52	+ 0.04	11.10	3 39 42.46	3.15
	* + 23° 56′	31	. .	. .	. .	50.5	51.6	53.7	10.5	13.0	14.3	15.8	17.1	41 5.81	− 28.42	11.10	3 40 26.29	3.15
	B. A. C. 1171	32	. .	. .	. .	. .	. .	. .	26.8	29.5	30.7	32.2	33.5	41 30.54	− 36.79	11.10	3 40 42.65	3.15
	Lacaille 1252	33	0.6	3.3	4.5	15.7	16.8	18.3	19.6	20.8	32.2	33.4	35.8	46 18.27	+ 0.08	11.10	3 46 7.25	1.50
	O. Arg. S. 2663	34	2.5	4.8	6.0	16.8	17.9	19.3	20.6	21.7	32.6	33.7	36.0	50 19.26	0.08	11.10	3 50 8.24	1.08
	Lalande 7391	35	37.3	40.0	41.4	53.7	54.9	56.7	58.2	59.5	11.8	13.2	15.8	53 56.59	0.03	11.10	3 53 45.52	3.36
	Weisse 1092	36	58.6	0.8	1.9	11.8	12.7	14.0	15.2	16.3	26.0	27.2	29.2	57 13.97	0.04	11.10	3 57 2.91	2.97
	ω¹ Tauri	37	27.8	30.0	31.2	41.4	42.5	43.8	45.0	46.1	56.2	57.3	59.5	1 43.71	0.04	11.11	4 1 32.64	3.09
	Rumker 1110	38	56.4	58.6	59.9	9.9	10.9	12.2	13.5	14.6	24.5	25.7	28.0	5 12.20	0.04	11.11	4 5 1.13	3.06
	Lalande 7994	39	38.7	41.3	42.7	54.8	56.2	57.6	59.2	0.5	12.5	14.0	16.5	10 57.64	0.03	11.11	4 10 46.56	3.31
	* − 23° 43′	40	35.7	37.8	39.0	49.5	50.7	52.0	53.2	54.4	5.0	6.1	8.4	13 51.98	0.07	11.11	4 13 40.94	1.40
	Lacaille 1433	41	4.0	6.6	8.0	19.8	21.0	22.5	23.8	25.1	37.0	38.4	40.9	17 22.46	0.09	11.11	4 17 11.44	1.44
	O. Arg. S. 3108	42	36.4	38.6	39.9	50.2	51.4	52.7	54.0	55.2	5.7	6.8	9.0	22 52.72	0.07	11.11	4 22 41.68	1.08
	Weisse 618	43	7.4	9.5	10.8	20.7	21.7	22.9	24.1	25.3	35.2	36.2	38.4	29 22.93	+ 0.04	11.11	4 29 11.86	3.08
	Weisse 646	44	. .	. .	. .	0.2	1.3	2.6	3.8	4.7	14.6	15.7	17.7	31 7.58	− 4.97	11.11	4 30 51.50	2.86
	Weisse 705	45	. .	. .	. .	20.2	21.0	23.3	38.7	41.1	42.7	43.6	44.9	33 34.40	26.17	11.11	4 32 57.12	2.86
	* − 1° 41′	46	. .	. .	. .	41.2	42.2	43.5	44.7	45.8	55.2	56.3	58.3	36 48.40	− 4.93	11.11	4 36 32.36	2.65
	1 Aurigæ	47	58.6	1.3	2.7	14.7	15.9	17.5	18.9	20.2	32.3	33.7	36.2	41 17.45	+ 0.03	11.11	4 41 6.37	3.45
	2 Aurigæ	48	45.0	47.5	48.8	0.8	2.0	3.6	5.0	6.3	18.3	19.5	22.0	44 3.53	0.03	11.12	4 43 52.44	3.47
	B. A. C. 1513	†49	58.3	0.8	2.2	13.9	15.0	16.5	18.0	19.2	31.0	32.4	34.8	47 16.55	0.09	11.12	4 47 5.52	1.37
	* − 25° 14′	50	29.5	31.7	32.9	43.5	44.6	45.9	47.3	48.4	59.2	0.3	2.5	54 45.98	0.08	11.12	4 54 34.94	1.52
	11 Orionis	51	1.0	3.1	4.3	14.2	15.3	16.6	17.9	18.9	28.8	29.9	32.0	57 16.55	+ 0.04	−11.12	4 57 5.47	+ 3.07

CORRECTIONS, &c.

Date.		Error of clock.	Hourly rate.	*n*.	*c*.
	h.	s.	s.	s.	s.
Dec. 2,	2.0	− 11.08	− 0.013	− 0.04	+ 0.05

9. Preceded by a small star to northward.
13. Faint.
49. Other stars in the field.

OBSERVATIONS

WITH THE

MURAL CIRCLE.

1868.

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.									MICROMETER.		
						A.			B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Corr'd.
						°	′	″	″	″	″	″	″	″	r.	r.	
1868. Jan. 1	1	B. A. C. 240	. .	3	V.	40	40	3.9	2.9	5.8	7.4	3.0	59.0	3.67	37.877	+ 0.476	38.353
	2	28 Ceti	. .	3	III–VII.	139	25	6.0	5.6	5.1	6.1	5.0	57.9	4.28	28.726	. .	29.204
	3	Weisse I, 65	. .	3	III–VII.	117	50	6.1	5.9	oblit.	5.9	5.0	59.0	4.39	29.160	. .	29.636
	4	Weisse I, 255	. .	3	III–VII.	123	5	6.0	5.9	6.3	7.2	6.0	59.8	5.20	30.693	. .	31.169
	5	B. A. C. 454	. .	3	III–VII.	118	40	8.1	7.6	7.0	8.2	8.0	1.0	6.65	28.385	. .	28.861
	6	B. A. C. 491	. .	3	III–VII.	139	0	8.0	8.0	7.3	8.0	8.7	0.1	6.68	34.461	. .	34.937
	7	τ Ceti	. .	3	III–VII.	145	30	8.1	7.8	8.1	7.4	8.1	1.6	6.85	28.911	. .	29.387
	8	O. Arg. S. 1116	. .	2	III, VII.	152	20	7.2	6.0	8.7	8.0	7.0	0.0	6.15	34.737	. .	35.213
	9	O. Arg. S. 1266	. .	3	III–VII.	154	50	6.9	5.2	7.0	5.7	5.0	59.0	4.80	34.239	. .	34.715
	10	O. Arg. S. 1354	. .	3	III–VII.	158	30	8.2	8.0	10.0	10.0	7.0	0.3	7.25	30.916	. .	31.392
	11	O. Arg. S. 1433	. .	3	III–VII.	156	0	9.4	8.0	9.0	8.8	7.1	0.1	7.07	29.768	. .	30.244
	12	O. Arg. S. 1551	5.0	3	III–VII.	144	50	8.9	7.2	8.0	6.2	8.0	0.8	6.52	32.321	. .	32.797
	13	O. Arg. S. 1664	. .	3	III–VII.	156	10	9.8	9.0	9.8	10.7	9.0	1.6	8.32	33.371	. .	33.852
	14	Weisse II, 615	. .	3	III, IV, VI.	116	15	7.9	7.4	8.1	7.9	7.8	1.1	6.70	40.129	. .	40.605
	15	Weisse II, 639	. .	3	IV–VI.	"	"	"	"	"	"	"	"	"	26.112	. .	26.587
	16	Lalande 5315	. .	3	IV–VI.	152	30	7.2	6.8	8.9	8.3	6.1	59.9	6.20	36.456	. .	36.933
	17	Anon. 2h. 46m. 51s.	. .	3	III–VII.	"	"	"	"	"	"	"	"	"	23.675	. .	24.151
	18	Weisse II, 1069	7.0	3	III–VII.	128	0	8.9	6.9	7.9	8.0	7.9	1.0	6.77	31.155	. .	31.631
	19	Anon. 3h. 9m. 7s.	. .	1	IV.	138	10	8.8	9.0	8.1	9.2	8.8	0.7	7.43	32.859	. .	33.335
	20	ζ Eridani	. .	3	V, VI, VIII.	"	"	"	"	"	"	"	"	"	26.995	. .	27.473
	21	o Tauri	. .	3	IV–VI.	120	20	9.0	9.0	9.9	9.2	9.4	2.2	8.12	30.863	. .	31.339
	22	Nadir	. .	5	. . .	270	0	8.3	8.7	9.6	11.8	9.1	3.0	8.42	29.673	. .	. .
9	23	Weisse (2) I, 1018	7.5	3	III–VII.	119	25	6.1	14.4	10.1	14.8	4.9	1.0	8.55	31.269	+ 0.448	31.717
	24	Weisse (2) I, 1022	7.0	2	VII, IX	"	"	"	"	"	"	"	"	"	26.798	. .	27.243
	25	O. Arg. S. 1424	8.3	3	III–VII.	152	45	8.0	18.3	15.9	21.0	8.8	3.7	12.62	28.443	. .	28.891
	26	69 Ceti	5.0	3	III–VII.	129	5	6.0	15.5	10.9	16.5	6.5	2.8	9.70	28.947	. .	29.395
	27	Lacaille 744	7.3	3	III–VII.	155	55	5.5	14.2	11.3	15.9	5.4	0.8	8.85	33.451	. .	33.894
	28	Lalande 4784	5.5	3	III–VII.	90	45	5.9	14.7	13.5	18.1	6.1	2.2	10.08	32.002	. .	32.442
	29	Weisse II, 728	8.0	3	IV–VI.	116	0	5.9	17.3	13.6	17.9	7.8	3.9	11.07	31.346	. .	31.793
	30	η Eridani	4.5	3	III–VII.	138	20	5.7	16.2	10.9	16.8	6.7	1.8	9.68	33.275	. .	33.725
	31	Anon. 2h. 58m. 19s.	9.6	2	V, IX.	152	30	7.4	17.3	15.4	20.0	9.2	2.8	2.02	27.050	. .	27.502
	32	Weisse III, 101	8.5	3	III–VII.	116	20	5.1	15.2	11.1	16.5	5.6	2.0	9.25	32.672	. .	33.118
	33	Weisse III, 240	7.5	3	III–VII.	132	30	3.9	13.9	9.6	16.2	4.7	0.4	8.12	33.333	. .	33.782
	34	Radcliffe 1041	6.0	3	III–VII.	80	50	6.3	17.9	15.6	19.9	8.0	4.2	11.98	34.217	. .	34.653
	35	ε Tauri	5.0	3	III–VII.	118	10	5.8	16.9	9.7	15.9	5.3	0.9	9.08	31.501	. .	31.947
	36	O. Arg. S. 2637	8.8	3	III–VII.	149	55	7.9	18.8	16.0	19.9	8.8	2.5	12.32	27.021	. .	27.473
	37	B. A. C. 1273	5.5	3	III–VII.	156	55	6.0	17.7	14.1	19.8	8.3	1.8	11.28	34.933	. .	35.387
	38	υ¹ Tauri	5.0	3	V–IX.	106	20	5.1	16.7	12.1	18.8	6.6	1.2	10.08	24.538	. .	24.977
	39	υ⁷ Eridani	4.0	3	IV–VI.	159	40	4.5	15.1	13.0	17.1	5.2	59.2	9.02	27.495	. .	27.945
	40	β Cœli	5.0	3	V–IX.	166	15	4.6	16.6	11.0	18.9	5.6	0.0	9.45	31.791	. .	32.255
	41	ω Eridani	4.5	3	V–IX.	134	35	4.1	15.9	10.5	18.1	5.2	1.0	9.13	32.912	. .	33.362
	42	Nadir	. .	5	. . .	270	0	2.5	12.9	7.5	16.9	3.4	0.0	7.20	29.662	. .	. .
10	43	Groombridge 227	8.0	3	I–III.	71	35	4.0	6.6	8.0	10.0	6.0	59.2	5.63	25.017	+ 0.416	25.379
	44	Groombridge 229	8.0	2	V, VI.	"	"	"	"	"	"	"	"	"	31.623	. .	32.035
	45	Radcliffe 317	9.0	2	IX.	"	"	"	"	"	"	"	"	"	20.440	. .	20.729
	46	ξ Andromedæ	. .	3	IV–VI.	84	5	7.0	10.3	10.1	14.2	9.0	1.2	8.63	32.811	. .	33.224
	47	B. A. C. 440	. .	3	I–V.	121	40	7.0	9.2	8.0	11.0	6.8	58.0	6.67	36.517	. .	36.939
	48	Weisse I, 348	. .	2	VI, VIII.	"	"	"	"	"	"	"	"	"	36.214	. .	36.625
	49	B. A. C. 481	. .	3	III–VII.	121	55	6.9	10.2	9.0	11.7	7.6	59.0	7.40	29.895	. .	30.309
	50	Weisse I, 655	7.0	3	III–VII.	123	50	7.0	10.8	10.0	12.9	9.0	1.8	8.58	33.151	. .	33.566
	51	57 Ceti	. .	3	III–VII.	150	20	7.0	10.2	10.0	12.0	7.9	58.5	7.60	29.582	. .	30.002
	52	Weisse I, 1043	. .	3	IV–VI.	115	0	7.0	11.2	10.0	12.0	9.2	1.1	8.42	37.389	. .	37.804
	53	Weisse II, 81	9.0	3	III–VII.	121	30	7.1	10.0	9.0	10.3	8.1	58.8	7.22	33.638	. .	34.052
	54	Anon. 2h. 18m. 9s.	9.0	3	V–VII.	67	40	8.0	9.8	13.0	15.3	9.0	2.1	9.53	26.940	. .	27.344
	55	Anon. 2h. 22m. 21s.	8.5	3	III–VII.	"	"	"	"	"	"	"	"	"	28.605	. .	29.002
	56	Anon. 2h. 23m. 38s.	6.0	3	VII–IX.	"	"	"	"	"	"	"	"	"	20.088	. .	20.440
	57	Weisse II, 574	9.0	3	IV–VI.	133	10	8.2	12.0	10.8	13.0	9.9	1.1	9.15	30.819	. .	31.235
	58	41 Arietis	. .	3	IV–VI.	102	10	7.8	11.9	10.1	13.9	9.2	0.0	8.82	28.790	. .	29.205
	59	O. Arg. S. 1968	8.0	3	III–VII.	157	0	8.0	11.0	11.0	12.1	8.7	58.5	8.22	27.431	. .	27.853
	60	B. A. C. 980	. .	3	III–VII.	102	30	7.0	10.6	11.0	13.0	8.1	59.9	8.27	29.671	. .	30.082
	61	Weisse III, 316	9.0	3	III–VII.	121	50	7.1	9.8	9.5	12.0	8.0	59.0	7.57	27.367	. .	27.781
	62	Anon. 3h. 27m. 10s.	9.0	2	III, VII.	97	35	7.9	11.0	12.0	13.1	10.2	1.5	9.28	24.338	. .	24.745
	63	Radcliffe 1041	. .	3	IV–VI.	80	45	7.8	11.0	12.7	14.1	9.9	2.2	9.62	24.694	. .	25.107
	64	B. A. C. 1206	. .	2	III, V.	112	0	7.0	10.1	9.0	12.3	7.8	0.1	7.72	34.798	. .	35.212
	65	Weisse III, 1015	. .	3	V–IX.	"	"	"	"	"	"	"	"	"	37.086	. .	37.496
	66	Nadir	. .	5	. .	270	0	7.0	9.1	8.5	14.0	6.9	1.0	7.75	29.712	. .	. .

Number.	Barometer.	THERM'S.		Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.							
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	29.463	39.2	33.3	− 4 21.8	N. 49 24 18.2	1 9.0	+ 88 19 6.4	+ 23.1	D.	
2	. .	. .	. .	+ 25.0	S. 49 25 29.2	1 9.2	− 10 32 59.2	+ 48.6	D.	
3	. .	. .	. .	+ 11.5	27 50 15.8	31.3	+ 11 2 52.1	+ 40.9	D.	+ 0″.64 added to mean of A, B, E, F.
4	. .	. .	32.4	− 36.6	33 4 28.6	38.7	+ 5 48 31.9	+ 42.6	D.	Blurred.
5	. .	. .	. .	+ 35.8	28 40 42.4	32.5	+ 10 12 24.3	+ 40.8	D.	
6	. .	. .	. .	− 2 34.8	48 57 31.8	1 8.1	− 10 5 0.7	+ 47.7	D.	
7	. .	. .	. .	+ 19.1	55 30 25.9	1 26.2	− 16 38 12.9	+ 49.5	D.	
8	29.480	38.8	33.2	− 2 12.2	62 17 53.9	1 52.5	− 23 26 7.2	+ 51.4	D.	Whole rev. not recorded.
9	. .	. .	. .	− 2 28.0	64 37 36.8	2 4.5	− 25 46 2.1	+ 51.2	D.	Circle reading recorded 154° 50′.
10	. .	. .	. .	− 43.8	68 29 23.4	2 29.5	− 29 38 13.7	+ 51.8	D.	
11	. .	. .	32.8	− 7.8	65 59 59.2	2 12.5	− 27 8 32.5	+ 50.7	D.	
12	. .	. .	. .	− 1 27.8	54 48 38.7	1 24.0	− 15 56 23.5	+ 46.6	D.	
13	. .	. .	. .	− 2 0.7	66 8 7.6	2 13.5	− 27 16 41.9	+ 48.9	D.	
14	. .	. .	. .	− 5 32.3	26 9 34.4	29.2	+ 12 43 35.6	+ 36.2	D.	
15	. .	. .	. .	+ 1 47.0	26 16 53.7	29.3	+ 12 36 16.2	+ 36.2	D.	
16	. .	. .	. .	− 3 37.3	62 26 28.9	1 53.4	− 23 34 43.1	+ 46.3	D.	
17	29.488	38.7	32.1	+ 3 3.2	62 33 9.4	1 54.0	− 23 41 24.2	+ 46.0	D.	
18	. .	. .	. .	− 51.1	37 59 15.6	46.4	+ 0 53 37.2	+ 37.6	D.	
19	. .	. .	. .	− 1 44.5	48 8 22.9	1 6.3	− 9 15 50.0	+ 39.6	D.	
20	. .	. .	. .	+ 1 19.2	48 11 26.6	1 6.4	− 9 18 53.8	+ 39.6	D.	
21	. .	. .	32.3	− 42.0	30 19 26.1	34.8	+ 8 33 38.3	+ 33.7	D.	Thermometer at 3h. 24m.
22	. .	. .	. .	. . .	. . . .	. . .	. . . .	. .	D.	
23	. .	. .	. .	− 53.7	29 24 14.8	35.3	+ 9 28 49.1	+ 40.3	Y.	
24	29.996	20.1	15.5	+ 1 26.5	29 26 35.0	35.4	+ 9 26 28.8	+ 40.3	Y.	
25	. .	. .	. .	+ 34.6	62 45 47.2	2 1.3	− 23 54 9.3	+ 50.7	Y.	
26	. .	. .	15.2	+ 19.0	39 5 28.7	50.9	− 0 12 40.4	+ 42.6	Y.	
27	. .	. .	. .	− 2 2.4	65 53 6.4	2 19.4	− 27 1 46.6	+ 50.5	Y.	
28	30.006	21.2	15.1	− 1 16.5	0 43 53.5	0.8	+ 38 9 44.9	+ 29.2	Y.	
29	. .	. .	. .	− 56.2	25 59 14.8	30.6	+ 12 53 53.8	+ 36.1	Y.	
30	30.012	21.9	14.8	− 1 56.7	48 18 12.9	1 10.4	− 9 25 44.1	+ 42.7	Y.	
31	. .	. .	. .	+ 1 18.0	62 31 20.0	2 0.3	− 23 39 41.1	+ 45.9	Y.	
32	. .	. .	. .	− 1 37.7	26 18 31.5	31.1	+ 12 34 36.6	+ 34.1	Y.	
33	. .	. .	. .	− 1 58.5	S. 42 28 9.6	57.5	− 3 35 27.9	+ 38.3	Y.	
34	30.024	22.3	14.2	− 2 25.8	N. 9 12 13.9	10.2	+ 48 6 3.3	+ 21.7	Y.	Barometer and thermometer at 3h. 22m.
35	. .	. .	. .	− 1 1.0	S. 28 9 8.0	33.7	+ 10 43 57.5	+ 31.0	Y.	
36	. .	. .	. .	+ 1 19.2	59 56 31.5	1 48.4	− 21 4 40.7	+ 38.4	Y.	
37	30.034	22.4	13.4	− 2 48.8	66 52 22.4	2 26.7	− 28 1 9.9	+ 38.2	Y.	
38	. .	. .	. .	+ 2 37.4	16 22 47.4	18.5	+ 22 30 33.3	+ 23.3	Y.	
39	30.040	22.4	13.4	+ 1 4.4	69 41 13.4	2 48.9	− 30 50 23.1	+ 33.4	Y.	
40	. .	. .	. .	− 1 10.7	76 13 58.7	4 12.9	− 37 24 32.4	+ 33.0	Y.	
41	30.040	22.3	13.0	− 1 45 4	S. 44 33 23.7	1 2.0	− 5 40 46.5	+ 25.7	Y.	
42	. .	. .	. .	. . .	. . . .	. . .	. . . .	. .	Y.	
43	. .	. .	. .	+ 2 24.6	N. 18 22 29.8	20.5	+ 57 16 29.5	+ 27.3	D.	Whole rev. recorded 24.
44	. .	. .	. .	− 1 3.8	18 25 58.2	20.5	+ 57 19 57.9	+ 27.3	D.	
45	. .	. .	. .	+ 4 50.8	18 20 3.6	20.4	+ 57 14 3.2	+ 27.3	D.	One reading at edge of field.
46	. .	. .	. .	− 1 41.0	N. 5 56 32.4	6.4	+ 44 50 18.0	+ 30.2	D.	
47	. .	. .	. .	− 3 37.2	S. 31 36 29.4	37.9	+ 7 16 31.9	+ 42.6	D.	Whole rev. recorded 37.
48	29.954	27.5	22.2	− 3 27.7	31 36 38.9	37.9	+ 7 16 22.4	+ 42.6	D.	Whole rev. recorded 37.
49	. .	. .	. .	− 9.7	31 54 57.7	38.4	+ 6 58 3.1	+ 42.5	D.	
50	. .	. .	. .	− 1 51.8	33 48 16.7	41.3	+ 5 4 41.2	+ 42.9	D.	
51	. .	. .	22.0	− 0.1	60 20 7.5	1 48.0	− 21 28 16.3	+ 51.0	D.	
52	. .	. .	. .	− 4 4.6	24 56 3.8	28.7	+ 13 57 6.7	+ 38.7	D.	
53	. .	. .	. .	− 2 7.0	S. 31 28 0.2	37.7	+ 7 25 1.3	+ 40.6	D.	
54	. .	. .	. .	+ 1 23.2	N. 22 18 27.3	25.3	+ 61 12 31.8	+ 23.9	D.	
55	. .	. .	. .	+ 31.3	22 19 19.2	25.3	+ 61 13 23.7	+ 23.7	D.	
56	. .	. .	. .	+ 4 59.3	N. 22 14 51.2	25.2	+ 61 8 55.6	+ 23.7	D.	
57	29.954	26.5	22.4	− 38.7	S. 43 9 30.4	57.8	− 4 16 49.0	+ 42.6	D.	
58	. .	. .	. .	+ 24.9	12 10 33.7	13.3	+ 26 42 52.2	+ 31.7	D.	
59	. .	. .	22.0	+ 1 7.3	67 1 15.5	2 24.6	− 28 10 0.9	+ 47.6	D.	
60	. .	. .	. .	− 2.6	12 30 5.6	13.7	+ 26 23 19.9	+ 30.2	D.	
61	. .	. .	. .	+ 1 9.5	31 51 17.0	38.4	+ 7 1 43.8	+ 34.6	D.	
62	. .	. .	. .	+ 2 44.7	S. 7 37 53.9	8.3	+ 31 15 37.0	+ 26.6	D.	
63	. .	. .	. .	+ 2 33.3	N. 9 12 17.1	10.0	+ 48 6 6.3	+ 21.6	D.	
64	. .	. .	. .	− 2 43.3	S. 21 57 24.4	25.0	+ 16 55 49.8	+ 28.7	D.	
65	29.934	25.2	20.2	− 3 55.0	21 56 12.7	24.9	+ 16 57 1.6	+ 28.5	D.	
66	. .	. .	. .	. . .	. . . .	. .	. . . .	. .	D.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.									MICROMETER.		
						A.			B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	C[illegible]
						°	'	"	"	"	"	"	"	"	r.	r.	
1868. Jan. 13	1	Lalande 2612	. .	3	III–VII.	130	0	6.9	8.8	7.0	8.9	6.3	59.0	6.15	28.218	+ 0.401	[illegible]
	2	Lalande 2942	. .	3	III–VII.	147	5	6.3	7.0	8.0	7.0	5.3	59.0	5.43	31.033	. .	[illegible]
	3	109 Piscium	. .	3	III–VII.	109	30	7.0	8.9	8.0	9.0	7.0	59.0	6.48	33.760	. .	[illegible]
	4	O. Arg. S. 1181	. .	3	III–VII.	147	35	7.0	9.0	9.3	7.4	6.1	58.7	6.25	36.929	. .	[illegible]
	5	O. Arg. S. 1210	. .	3	III–VII.	“	“	“	“	“	“	“	“	“	30.894	. .	[illegible]
	6	Weisse II, 109	. .	3	III–VII.	113	40	7.1	9.3	9.6	10.0	7.9	59.8	7.28	28.097	. .	[illegible]
	7	69 Ceti	. .	3	V–VII.	129	5	7.1	9.0	7.7	9.9	8.8	1.2	7.28	28.947	. .	[illegible]
	8	Carrington 347	. .	3	1–5.	40	30	8.0	9.8	11.0	13.4	7.9	3.0	8.85	31.875	. .	[illegible]
	9	B. A. C. 810	. .	3	III–VII.	118	50	7.8	9.7	8.0	9.2	7.1	59.0	6.80	31.485	. .	[illegible]
	10	Lacaille 910	. .	3	III–VII.	151	45	8.0	11.0	11.0	10.9	9.0	0.0	8.32	26.352	. .	[illegible]
	11	Anon. 2h. 52m. 59s.	. .	3	III–VII.	156	20	7.0	9.2	8.0	10.0	7.7	58.8	6.78	31.828	. .	[illegible]
	12	Weisse (2) III, 195	. .	3	III–VII.	111	50	6.2	9.4	8.7	10.1	6.8	0.1	6.88	33.280	. .	[illegible]
	13	B. A. C. 1058	. .	3	IV–VI.	69	25	6.0	11.2	11.1	13.0	7.9	2.0	8.53	29.223	. .	[illegible]
	14	7 Tauri	. .	3	III–VII.	104	50	6.0	10.8	11.0	12.0	9.0	1.0	8.30	25.548	. .	[illegible]
	15	Weisse (2) III, 657	7.0	3	III–VII.	95	10	5.8	9.0	10.8	11.9	9.1	0.3	7.82	25.068	. .	[illegible]
	16	B. A. C. 1163	. .	3	III, V, VIII.	104	45	5.0	9.9	9.0	10.0	7.8	59.0	6.78	26.101	. .	[illegible]
	17	Lacaille 1259	. .	3	III–VII.	151	30	5.0	8.0	8.1	9.8	5.9	57.0	5.63	25.242	. .	[illegible]
	18	O. Arg. S. 2696	9.0	3	III–VII.	157	5	6.3	9.0	9.0	9.8	7.0	57.9	6.50	26.643	. .	[illegible]
	19	Lacaille 1373	. .	3	III–VII.	154	15	7.0	10.0	9.3	9.4	7.0	57.3	6.67	23.865	. .	[illegible]
	20	55 Tauri	. .	3	III–VII.	112	40	6.1	10.0	10.0	11.0	8.0	0.0	7.52	27.521	. .	[illegible]
	21	O. Arg. S. 3061	. .	3	III–VII.	157	20	6.0	8.8	7.9	10.0	6.0	56.9	5.93	25.652	. .	[illegible]
	22	Nadir	. .	5	. .	270	0	5.0	8.1	8.0	11.8	6.1	59.0	6.33	29.681	. .	. .
17	23	ξ Andromedæ	. .	3	IV–VI.	84	5	5.1	6.4	6.9	8.8	8.9	1.1	6.20	32.732	+ 0.433	[illegible]
	24	Lacaille 436	. .	3	III–VII.	153	10	7.0	6.0	6.2	5.2	5.8	59.0	4.87	27.092	. .	[illegible]
	25	B. A. C. 494	. .	3	1–5.	42	40	7.0	7.7	10.0	9.3	8.1	0.8	7.15	33.851	. .	[illegible]
	26	4 Arietis	. .	3	III–VII.	112	35	7.4	8.0	6.6	6.8	8.8	0.7	6.38	28.997	. .	[illegible]
	27	47 Cassiopeæ	. .	3	1–5.	52	15	7.0	7.2	10.0	10.0	8.2	3.1	7.58	28.697	. .	[illegible]
	28	O. Arg. S. 1424	. .	3	III–VII.	152	45	7.7	8.8	9.0	8.9	7.3	0.0	6.95	28.267	. .	[illegible]
	29	Anon. 2h. 22m. 39s.	6.5	3	V–VII.	67	45	8.0	8.1	10.3	12.0	8.4	4.9	8.62	29.616	. .	[illegible]
	30	Lacaille 802	. .	3	III–VII.	158	25	8.3	10.0	11.0	10.9	9.0	0.0	8.20	29.019	. .	[illegible]
	31	Weisse II, 831	8.0	2	III, V.	128	55	9.0	9.3	8.3	9.0	10.0	3.0	8.10	22.261	. .	[illegible]
	32	Weisse II, 846	9.0	2	V, VI.	“	“	“	“	“	“	“	“	“	31.420	. .	[illegible]
	33	Weisse II, 853	9.0	2	VI, IX.	“	“	“	“	“	“	“	“	“	32.197	. .	[illegible]
	34	Weisse II, 872	6.5	4	VI–IX.	“	“	“	“	“	“	“	“	“	23.899	. .	[illegible]
	35	Lalande 5834	7.0	3	III–VII.	91	20	10.0	11.0	11.3	12.3	10.8	4.0	9.90	30.645	. .	[illegible]
	36	Weisse (2) III, 216	8.0	3	III–VII.	111	10	7.0	9.8	7.1	9.1	8.9	0.8	7.12	26.166	. .	[illegible]
	37	9 Tauri	. .	3	III–VII.	106	5	6.0	10.0	9.1	9.7	9.2	0.9	7.48	25.891	. .	[illegible]
	38	Weisse (2) III, 657	. .	3	IV–VI.	95	10	6.0	7.4	9.9	9.8	8.7	1.0	7.13	24.997	. .	[illegible]
	39	13 Pleiadum	8.0	3	III–VII.	105	20	5.5	8.1	8.1	9.0	8.0	0.2	6.48	32.883	. .	[illegible]
	40	O. Arg. S. 2696	. .	3	III, V.	157	5	5.3	7.4	7.2	7.0	6.0	57.0	4.98	26.483	. .	[illegible]
	41	Weisse IV, 22	7.0	3	III–VII.	113	15	6.0	9.0	8.9	9.0	7.0	0.0	6.65	25.335	. .	[illegible]
	42	Weisse IV, 183	. .	3	III, V, IX.	110	55	7.0	8.8	7.0	8.9	6.9	59.0	6.27	24.966	. .	[illegible]
	43	Weisse (2) IV, 420	9.0	2	III, VII.	105	5	6.7	9.8	9.2	10.4	8.3	1.0	7.57	31.351	. .	[illegible]
	44	B. A. C. 1408	. .	3	III–VII.	100	15	6.3	7.1	7.8	8.1	7.0	0.1	6.07	33.413	. .	[illegible]
	45	Nadir	. .	5	. .	270	0	6.8	9.6	7.8	11.2	7.8	1.5	7.45	29.685	. .	.
21	46	Lacaille 988	7.0	3	V–IX.	159	40	3.9	7.9	7.3	6.4	5.9	7.0	6.40	28.422	+ 0.453	[illegible]
	47	Anon. 3h. 15m. 51s.	10.0	1	VI.	103	55	6.0	10.0	8.8	8.1	9.3	10.0	8.70	28.020	. .	[illegible]
	48	Weisse III, 351	9.3	2	VI, IX.	“	“	“	“	“	“	“	“	“	29.159	. .	[illegible]
	49	Lacaille 1134	7.0	3	III–VII.	159	55	3.9	8.6	7.9	6.9	7.1	7.7	7.02	28.467	. .	[illegible]
	50	O. Arg. S. 2452	7.0	3	III–VII.	157	15	5.3	10.5	7.4	7.1	8.7	8.2	7.87	29.072	. .	[illegible]
	51	Lalande 7069	6.0	3	III–VII.	119	55	5.1	9.3	6.2	5.9	8.5	9.6	7.43	33.473	. .	[illegible]
	52	Lacaille 1291	7.5	3	III–VII.	158	55	4.9	9.9	8.9	9.2	7.0	8.9	8.13	31.401	. .	[illegible]
	53	Lacaille 1341	7.2	2	I, IX.	159	25	4.7	10.2	8.0	8.8	7.8	9.1	8.10	27.014	. .	[illegible]
	54	O. Arg. S. 2793	8.5	3	IV–VI.	“	“	“	“	“	“	“	“	“	31.952	. .	[illegible]
	55	B. A. C. 1404	8.0	3	III–VII.	159	35	3.5	7.9	5.8	6.1	5.2	6.9	5.90	29.068	. .	[illegible]
	56	53 Eridani	4.5	3	III–VII.	143	25	4.9	8.7	6.7	6.9	7.1	8.0	7.05	26.970	. .	[illegible]
	57	β Cœli	5.5	3	V–IX.	166	15	5.3	12.4	9.1	9.9	9.2	11.1	9.50	31.323	. .	[illegible]
	58	B. A. C. 1496	. .	3	IV–VI.	54	50	4.9	10.1	7.8	9.4	9.5	10.9	8.77	28.467	. .	[illegible]
	59	O. Arg. S. 3576	8.0	3	III–VII.	158	40	3.1	8.7	6.2	6.1	5.7	6.6	6.07	33.629	. .	[illegible]
	60	γ^1 Cœli	5.0	3	V–IX.	164	30	4.8	10.2	8.1	8.2	8.1	9.4	8.13	29.077	. .	[illegible]
	61	B. A. C. 1615	6.7	3	III–VII.	159	15	3.1	9.1	7.0	7.0	6.2	7.9	6.72	30.325	. .	[illegible]
	62	O. Arg. S. 3846	9.0	3	III–VII.	156	30	3.7	9.4	6.4	7.5	7.2	7.8	7.00	30.960	. .	[illegible]
	63	Lacaille 1844	7.5	3	III–VII.	161	30	4.7	9.3	7.8	7.5	6.2	8.9	7.40	33.443	. .	[illegible]
		Anon. 6h. 21m. 38s.	9.5	3	III–VII.	103	20	3.7	7.8	6.0	6.8	6.1	8.4	6.47	24.656	. .	[illegible]
		Weisse (2) VI, 631	9.5	2	VII, IX.	“	“	“	“	“	“	“	“	“	24.135	. .	[illegible]
		Weisse (2) VI, 909	6.0	3	III–VII.	104	10	3.7	8.2	6.2	7.2	7.2	9.4	6.98	27.916	. .	[illegible]

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	30.450	29.5	21.8	+ 43.3	S. 40 0 49.4	52.6	− 1 8 2.8	+ 45.8	D.	
2	. .	. .	. .	− 45.0	57 4 20.4	1 36.6	− 18 12 17.8	+ 51.3	D.	
3	. .	. .	. .	− 2 10.3	19 27 56.1	22.2	+ 19 25 20.9	+ 37.9	D.	
4	. .	. .	. .	− 3 49.8	57 31 16.4	1 38.4	− 18 39 15.6	+ 50.5	D.	
5	. .	. .	21.6	− 40.7	57 34 25.5	1 38.6	− 18 42 24.9	+ 50.4	D.	
6	. .	. .	. .	+ 47.2	23 40 54.4	27.6	+ 15 12 17.2	+ 37.9	D.	
7	. .	. .	. .	+ 20.4	S. 39 5 27.6	51.1	− 0 12 39.5	+ 42.9	D.	
8	30.470	28.5	20.6	− 1 11.2	N. 49 31 2.4	1 13.6	+ 88 25 55.2	+ 19.5	D.	
9	. .	. .	. .	− 59.1	S. 28 49 7.7	34.6	+ 10 3 56.9	+ 38.1	D.	
10	. .	. .	. .	+ 1 41.7	61 46 50.0	1 57.1	− 22 55 7.9	+ 47.3	D.	
11	30.478	28.0	19.8	− 1 10.0	66 18 56.7	2 23.0	− 27 27 40.5	+ 47.9	D.	
12	. .	. .	. .	− 1 55.3	S. 21 48 11.5	25.2	+ 17 5 2.5	+ 32.4	D.	
13	. .	. .	. .	+ 12.0	N. 20 34 39.5	23.7	+ 59 28 42.4	+ 20.1	D.	
14	. .	. .	. .	+ 2 7.0	S. 14 52 15.3	16.8	+ 24 1 7.1	+ 28.7	D.	Circle reading recorded 124° 50′.
15	. .	. .	. .	+ 2 22.2	5 12 30.0	5.8	+ 33 41 3.4	+ 25.3	D.	
16	. .	. .	19.6	+ 1 49.9	14 46 56.6	16.6	+ 24 6 26.0	+ 27.3	D.	
17	. .	. .	. .	+ 2 16.4	61 32 22.0	1 56.2	− 22 40 39.0	+ 39.6	D.	
18	30.496	27.0	18.7	+ 1 32.5	67 6 39.0	2 28.9	− 28 15 28.7	+ 40.1	D.	
19	. .	. .	. .	+ 2 59.6	64 18 6.2	2 10.9	− 25 26 37.9	+ 37.4	D.	Microscope F recorded 7.″3.
20	. .	. .	. .	+ 1 5.2	22 41 12.7	26.5	+ 16 12 0.0	+ 25.7	D.	
21	30.500	26.7	17.9	+ 2 3.5	S. 67 22 9.4	2 31.0	− 28 31 1.2	+ 35.5	D.	
22	. .	. .	. .	. .	. . . .	. .	. . . . .	. .	D.	
23	. .	. .	. .	− 1 39.1	N. 5 56 32.9	6.4	+ 44 50 18.5	+ 30.8	D.	
24	. .	. .	22.0	+ 1 17.4	S. 63 11 22.2	2 1.8	− 24 19 44.8	+ 53.6	D.	
25	30.020	34.0	. .	− 2 14.2	N. 47 22 7.1	1 7.1	+ 86 16 53.4	+ 21.8	D.	
26	. .	. .	. .	+ 18.0	S. 22 35 24.3	25.7	+ 16 17 49.2	+ 39.3	D.	
27	. .	. .	. .	+ 27.3	N. 37 44 25.2	47.9	+ 76 38 52.3	+ 22.2	D.	
28	30.038	32.0	21.4	+ 40.6	S. 62 45 47.5	2 0.0	− 23 54 8.3	+ 51.3	D.	
29	. .	. .	. .	− 1.2	N. 22 14 52.6	25.3	+ 61 8 57.1	+ 23.4	D.	
30	. .	. .	21.2	+ 17.0	S. 68 25 25.2	2 35.6	− 29 34 21.6	+ 51.2	D.	
31	. .	. .	. .	+ 3 49.0	38 58 57.1	50.1	− 0 6 8.0	+ 40.5	D.	
32	. .	. .	. .	− 58.1	38 54 10.0	50.0	− 0 1 20.8	+ 40.4	D.	
33	. .	. .	. .	− 1 22.5	38 53 45.6	50.0	− 0 0 56.4	+ 40.4	D.	
34	. .	. .	. .	+ 2 57.7	38 58 5.8	50.1	− 0 5 16.7	+ 40.3	D.	
35	. .	. .	. .	− 33.5	1 19 36.4	1.4	+ 37 34 1.4	+ 26.8	D.	
36	30.050	30.0	20.4	+ 1 46.7	21 11 53.8	24.1	+ 17 41 21.3	+ 32.4	D.	
37	. .	. .	. .	+ 1 55.3	16 7 2.7	17.9	+ 22 46 18.6	+ 28.9	D.	
38	. .	. .	. .	+ 2 23.3	5 12 30.4	5.7	+ 33 41 3.1	+ 25.3	D.	
39	. .	. .	. .	− 1 43.8	15 18 22.6	17.0	+ 23 34 59.6	+ 27.6	D.	
40	30.058	29.0	20.4	+ 1 35.9	67 6 40.8	2 26.3	− 28 15 27.9	+ 40.7	D.	One reading at edge of field.
41	. .	. .	. .	+ 2 12.7	23 17 19.3	26.7	+ 15 35 53.2	+ 27.2	D.	
42	. .	. .	. .	+ 2 24.4	20 57 30.6	23.8	+ 17 55 44.8	+ 25.6	D.	
43	. .	. .	. .	− 55.7	15 4 11.8	16.7	+ 23 49 10.7	+ 22.7	D.	
44	30.076	28.5	20.1	− 2 0.3	10 13 5.7	11.2	+ 28 40 22.3	+ 20.7	D.	
45	. .	. .	. .	. .	. . . .	. .	. . . . .	. .	D.	Windy. Unsteady.
46	29.876	37.8	35.4	+ 34.9	69 40 41.3	2 40.3	− 30 49 42.4	+ 48.6	Y.	Adjusted reading of microscope F.
47	. .	. .	. .	+ 47.9	13 55 56.6	14.8	+ 24 57 27.8	+ 29.7	Y.	Very faint.
48	. .	. .	. .	+ 12.5	13 55 21.2	14.8	+ 24 58 3.2	+ 29.5	Y.	
49	. .	. .	35.5	+ 33.7	69 55 40.7	2 42.4	− 31 4 43.9	+ 45.4	Y.	
50	29.900	37.6	35.5	+ 14.7	67 15 22.5	2 21.9	− 28 24 5.2	+ 43.9	Y.	
51	. .	. .	. .	− 2 3.0	29 53 4.4	34.4	+ 9 0 0.4	+ 32.0	Y.	
52	29.910	37.6	36.1	− 58.3	68 54 9.8	2 33.9	− 30 3 4.5	+ 42.0	Y.	
53	. .	. .	. .	+ 1 18.5	69 26 26.6	2 38.3	− 30 35 25.7	+ 40.7	Y.	
54	. .	. .	. .	− 1 15.5	69 23 52.6	2 38.0	− 30 32 51.4	+ 40.7	Y.	
55	29.940	37.5	35.5	+ 13.9	69 35 19.8	2 39.8	− 30 44 20.4	+ 36.5	Y.	
56	. .	. .	. .	+ 1 20.7	53 26 27.7	1 20.7	− 14 34 9.2	+ 31.7	Y.	
57	. .	. .	. .	− 56.2	S. 76 14 13.3	4 0.4	− 37 24 34.5	+ 35.5	Y.	
58	29.948	37.6	35.5	+ 34.2	N. 35 9 17.1	42.2	+ 74 3 38.5	+ 8.5	Y.	
59	. .	. .	. .	− 2 8.1	S. 68 37 57.9	2 32.3	− 29 46 51.0	+ 30.9	Y.	
60	. .	. .	. .	+ 14.3	74 30 22.4	3 33.5	− 35 40 16.7	+ 30.9	Y.	
61	. .	. .	. .	− 24.6	69 14 42.1	2 37.3	− 30 23 40.2	+ 28.7	Y.	
62	29.978	37.6	35.0	− 44.5	66 29 22.5	2 17.3	− 27 38 0.6	+ 27.0	Y.	
63	. .	. .	. .	− 2 2.3	71 28 5.1	2 57.6	− 32 37 23.5	+ 26.0	Y.	
64	. .	. .	. .	+ 2 33.5	13 22 39.9	14.3	+ 25 30 45.0	+ 5.3	Y.	
65	30.010	37.2	33.7	+ 2 50.1	13 22 56.5	14.4	+ 25 30 28.3	+ 5.1	Y.	
66	. .	. .	. .	+ 51.3	14 10 58.2	15.3	+ 24 42 25.7	+ 4.0	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES. A.			B.	C.	D.	E.	F.	Mean.	MICROMETER. Observed.	Nadir cor.	Corr'd
						°	′	″	″	″	″	″	″	′	r.	r.	r.
1868. Jan. 21	1	ξ Geminorum	5.0	3	III–VII.	115	50	3.7	9.2	6.2	6.4	6.9	10.2	7.10	27.340	. .	27.792
	2	Anon. 6h. 38m. 59s.	8.7	3	V–IX.	"	"	"	"	"	"	"	"	"	32.462	. .	32.914
	3	B. A. C. 2266	6.0	3	III–VII.	157	15	3.9	9.8	6.4	7.0	6.6	7.9	6.93	33.087	. .	33.540
	4	Weisse (2) VI, 1747	8.3	3	V–IX.	106	0	5.6	12.0	8.8	10.8	9.7	11.5	9.73	28.912	. .	29.365
	5	O. Arg. S. 6262	8.5	2	VII, IX.	154	55	3.0	8.8	5.2	6.0	5.3	8.2	6.08	27.286	. .	27.738
	6	B. A. C. 2393	5.5	3	III–VII.	155	40	3.9	9.6	6.1	7.0	7.2	7.9	6.95	29.270	. .	29.725
	7	O. Arg. S. 6666	8.3	3	IV–VI.	156	45	3.8	9.4	6.6	7.2	5.7	7.3	6.67	28.169	. .	28.621
	8	O. Arg. S. 6678	7.3	2	VIII, IX.	"	"	"	"	"	"	"	"	"	23.592	. .	24.044
	9	Nadir	. .	5	. .	270	0	3.6	8.3	5.2	7.1	6.4	7.8	6.40	29.631	. .	. .
22	10	Weisse II, 415	. .	3	III–VII.	125	45	8.0	6.2	4.2	1.0	6.9	59.7	4.33	32.004	+ 0.404	32.408
	11	O. Arg. S. 1744	. .	3	IV–VI.	147	15	8.3	6.0	6.0	1.0	5.2	0.0	4.42	28.711	. .	29.115
	12	Weisse (2) II, 1038	8.5	3	III–VII.	113	40	7.9	6.9	6.0	1.6	7.0	0.0	4.90	24.440	. .	24.841
	13	Lacaille 922	. .	3	III–VII.	154	40	8.0	5.3	5.9	1.0	5.8	59.7	4.28	25.612	. .	26.022
	14	Lacaille 983	. .	3	III–VII.	161	45	8.0	6.0	7.0	3.8	5.2	59.9	4.98	34.367	. .	34.777
	15	Lacaille 1004	. .	3	III–VII.	"	"	"	"	"	"	"	"	"	30.510	. .	30.921
	16	O. Arg. S. 2173	. .	3	III–VII.	147	45	7.9	5.1	5.0	2.0	5.0	59.7	4.12	29.945	. .	30.353
	17	B. A. C. 1054	. .	3	IV–VI.	154	55	8.1	6.0	6.0	2.1	6.1	0.1	4.73	28.781	. .	29.189
	18	Lacaille 1160	. .	3	III–VII.	160	35	8.8	5.6	8.0	2.8	5.5	59.0	4.95	29.451	. .	29.861
	19	O. Arg. S. 2495	. .	3	IV–VI.	157	55	9.0	7.0	7.2	3.7	7.0	59.0	5.48	31.198	. .	31.604
	20	Anon. 3h. 44m. 18s.	7.0	3	IV–VI.	148	0	9.2	5.2	6.0	3.2	5.0	59.3	4.65	27.432	. .	27.837
	21	Weisse III, 965	6.5	3	III–VII.	139	0	9.0	7.0	6.0	4.0	7.0	0.0	5.50	27.949	. .	28.355
	22	Weisse (2) III, 1266	8.0	3	III, IV, VI.	108	0	9.0	7.9	6.7	3.0	7.9	1.9	6.07	31.421	. .	31.822
	23	Weisse (2) III, 1275	8.5	3	VII–IX.	"	"	"	"	"	"	"	"	"	31.804	. .	32.219
	24	Weisse (2) IV, 160	8.0	3	III–VII.	108	40	8.8	7.0	6.0	3.6	6.8	1.9	5.68	25.154	. .	25.554
	25	Weisse IV, 533	. .	3	III–VII.	114	0	8.3	7.3	6.5	5.0	7.9	1.5	6.08	29.241	. .	29.642
	26	Weisse IV, 705	. .	3	III–VII.	121	55	9.0	8.1	7.0	5.1	8.0	1.3	6.42	34.358	. .	34.766
	27	Anon. 4h. 45m. 0s.	9.0	2	III–IX.	152	20	9.0	7.6	7.7	5.1	9.0	1.2	6.60	23.811	. .	24.240
	28	O. Arg. S. 3506	. .	3	III–V.	"	"	"	"	"	"	"	"	"	30.704	. .	31.111
	29	O. Arg. S. 3516	. .	3	VI–VIII.	"	"	"	"	"	"	"	"	"	26.032	. .	26.447
	30	Weisse IV, 1379	6.5	2	V, VII.	141	35	10.0	8.8	8.1	6.0	8.1	1.0	7.00	34.642	. .	35.048
	31	Weisse IV, 1394	6.5	3	VII–IX.	"	"	"	"	"	"	"	"	"	23.039	. .	23.459
	32	Nadir	. .	5	. .	270	0	6.1	3.2	3.0	2.2	3.2	59.3	2.83	29.566	. .	. .
24	33	15 Arietis	. .	3	III–VII.	110	0	6.0	4.0	3.8	1.4	5.0	59.4	3.27	28.263	+ 0.424	28.687
	34	20 Arietis	. .	3	III–VII.	103	45	6.0	2.0	3.5	1.0	4.6	59.2	2.72	32.957	. .	33.381
	35	70 Ceti	. .	3	V–VII.	130	20	6.0	2.5	0.1	0.0	3.0	58.0	1.60	25.402	. .	25.826
	36	B. A. C. 773	. .	3	III–VII.	152	10	7.0	4.0	4.0	0.3	4.9	58.8	3.17	32.800	. .	33.224
	37	O. Arg. S. 1655	. .	3	III–VII.	146	45	7.9	3.8	3.1	0.6	4.9	0.0	3.38	30.510	. .	30.934
	38	Weisse II, 574	8.0	3	III–VII.	133	10	8.0	5.1	4.1	2.0	6.0	1.0	4.37	30.554	. .	30.978
	39	Weisse (2) II, 1038	. .	3	III–VII.	113	40	7.9	5.3	4.9	2.6	6.0	0.0	4.45	24.416	. .	24.840
	40	Weisse II, 881	9.0	2	III, V.	114	15	8.0	5.2	5.3	2.0	6.0	1.7	4.70	28.084	. .	28.508
	41	Anon. 2h. 58m. 53s.	9.0	2	IV, VI.	163	45	7.7	3.8	5.0	1.1	4.2	58.0	3.30	27.608	. .	28.032
	42	Weisse III, 56	9.0	3	III–VII.	123	55	8.0	5.0	5.9	2.4	6.4	1.0	4.78	25.777	. .	26.201
	43	Anon. 3h. 13m. 4s.	8.5	3	III–VII.	106	10	8.8	7.0	7.0	4.3	8.5	1.9	6.25	27.603	. .	28.027
	44	B. A. C. 1063	. .	3	IV–VI.	79	30	9.5	6.9	9.1	5.9	9.4	5.0	7.63	28.769	. .	29.193
	45	Anon. 3h. 30m. 15s.	9.0	2	III, VIII.	101	10	6.3	2.0	2.0	0.1	3.7	58.9	2.17	27.508	. .	27.931
	46	B. A. C. 1150	5.0	3	III–VII.	161	15	6.2	2.8	5.0	0.2	1.9	58.0	2.35	33.921	. .	34.345
	47	Anon. 3h. 45m. 5s.	6.5	3	IV–VI.	161	30	6.0	3.0	4.1	1.0	2.0	58.0	2.35	25.302	. .	25.726
	48	Weisse III, 975	8.0	3	I–V.	114	15	5.4	3.0	3.0	0.9	3.0	58.6	2.32	37.436	. .	37.860
	49	O. Arg. S. 2828	. .	3	III–VII.	156	40	5.1	2.2	2.0	0.2	2.0	56.9	1.40	33.619	. .	34.043
	50	Weisse (2) IV, 160	. .	2	I, IX.	108	40	5.0	2.2	2.0	0.0	1.6	58.2	1.50	25.046	. .	25.452
	51	Weisse (2) IV, 166	. .	3	III–VII.	"	"	"	"	"	"	"	"	"	30.207	. .	30.627
	52	Weisse (2) IV, 436	6.5	3	III–VII.	101	45	4.7	2.5	1.7	1.0	2.7	56.9	1.58	25.945	. .	26.369
	53	Anon. 4h. 28m. 37s.	9.0	3	III–VII.	101	55	5.4	4.0	2.0	2.1	3.0	58.0	2.42	30.594	. .	31.018
	54	Nadir	. .	5	. .	270	0	5.2	2.0	2.0	1.8	3.0	58.7	2.12	29.524	. .	. .
25	55	Anon. 2h. 52m 59s.	8.5	3	III–VII.	156	20	5.9	9.3	6.1	4.7	4.1	58.4	4.75	31.460	+ 0.420	31.880
	56	Weisse III, 23	9.0	3	III–VII.	139	0	7.0	8.5	4.8	4.5	5.2	58.0	4.67	34.372	. .	34.792
	57	15 Eridani	6.5	3	IV–VI.	151	50	6.2	8.0	5.2	4.0	4.4	57.4	4.20	26.256	. .	26.677
	58	Weisse (2) III, 334	6.5	3	III–VII.	116	35	6.6	8.8	5.1	3.9	4.9	59.6	4.82	26.032	. .	26.452
	59	10 Tauri	5.5	3	III–VII.	128	55	7.1	9.4	5.2	4.5	6.1	0.7	5.50	31.236	. .	31.656
	60	Anon. 3h. 39m. 37s.	7.5	2	I, IX.	105	35	7.7	11.4	8.2	7.5	9.4	2.7	7.82	25.219	. .	25.639
	61	Anon. 3h. 39m. 28s.	7.0	3	IV–VI.	"	"	"	"	"	"	"	"	"	30.685	. .	31.104
	62	B. A. C. 1186	6.0	3	IV–VI.	"	"	"	"	"	"	"	"	"	29.780	. .	30.200
	63	Lacaille 1259	7.7	3	III–VII.	151	30	7.5	10.9	7.9	5.9	6.4	1.6	6.70	25.042	. .	25.462
	64	Anon. 3h. 54m. 57s.	9.0	3	III–VII.	156	5	5.9	8.5	4.8	4.3	3.1	57.4	4.00	31.065	. .	31.485
	65	O. Arg. S. 2828	9.0	3	III–VII.	156	40	8.1	10.2	7.8	6.8	6.9	0.0	6.63	33.786	. .	34.206
	66	O. Arg. S. 2922	7.5	2	V, VII.	159	15	7.1	10.1	8.9	6.2	5.1	58.8	6.03	23.440	. .	23.860

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith Distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	+ 1 9.2	S. 25 51 16.3	29.3	+ 13 1 53.6	+ 4.6	Y.	
2	30.024	37.2	33.4	− 1 31.2	25 48 35.9	29.2	+ 13 4 34.1	+ 4.4	Y.	
3	. .	. .	. .	− 1 51.1	67 13 15.8	2 23.1	− 28 21 59.7	+ 6.6	Y.	
4	. .	. .	. .	+ 20.2	16 0 29.9	17.3	+ 22 52 52.0	+ 0.2	Y.	
5	. .	. .	. .	+ 1 10.4	64 56 16.4	2 8.7	− 26 4 45.9	+ 3.3	Y.	
6	30.052	37.1	32.8	+ 8.5	65 40 15.4	2 13.1	− 26 48 49.3	+ 1.8	Y.	
7	. .	. .	. .	+ 43.1	66 45 49.7	2 20.1	− 27 54 30.6	+ 0.5	Y.	
8	. .	. .	. .	+ 36.0	66 48 12.6	2 20.4	− 27 56 53.8	+ 0.4	Y.	
9	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
10	30.385	37.0	31.0	− 1 15.4	35 43 48.9	44.1	+ 3 9 6.2	+ 41.6	D.	Jan. 22. Cleaned and adjusted microscopes D and F. Y.
11	. .	. .	. .	+ 27.7	57 15 32.1	1 35.3	− 18 23 28.2	+ 48.0	D.	
12	. .	. .	. .	+ 2 41.7	23 42 46.6	27.0	+ 15 10 25.6	+ 36.0	D.	
13	. .	. .	30.4	+ 2 4.7	64 42 8.9	2 9.4	− 25 50 39.1	+ 48.8	D.	
14	. .	. .	. .	− 2 29.7	71 42 35.2	3 4.2	− 32 52 0.2	+ 49.3	D.	
15	. .	. .	. .	− 28.8	71 44 36.1	3 4.6	− 32 54 1.5	+ 48.7	D.	
16	. .	. .	. .	− 11.1	57 44 53.0	1 37.2	− 18 52 51.0	+ 44.4	D.	
17	30.358	35.8	29.2	+ 25.5	64 55 30.2	2 10.8	− 26 4 1.8	+ 45.8	D.	
18	. .	. .	. .	+ 4.3	70 35 9.2	2 53.4	− 31 44 23.4	+ 45.1	D.	
19	. .	. .	28.4	− 50.3	67 54 15.1	2 31.0	− 29 3 6.9	+ 43.7	D.	
20	. .	. .	. .	+ 1 7.8	58 1 12.4	1 38.6	− 19 9 11.8	+ 40.3	D.	
21	. .	. .	. .	+ 51.5	49 0 57.0	1 10.9	− 10 8 28.7	+ 36.9	D.	
22	. .	. .	. .	− 57.1	17 59 8.9	20.1	+ 20 54 10.2	+ 26.2	D.	
23	. .	. .	. .	− 1 8.8	17 58 57.2	20.1	+ 20 54 21.9	+ 26.1	D.	
24	. .	. .	. .	+ 2 19.3	18 42 24.9	20.9	+ 20 10 53.4	+ 25.2	D.	
25	. .	. .	. .	+ 11.2	24 0 17.2	27.6	+ 14 52 54.4	+ 24.5	D.	
26	30.376	34.5	27.1	− 2 29.2	31 52 37.2	38.5	+ 7 0 23.5	+ 25.9	D.	
27	. .	. .	. .	+ 3 0.3	62 23 6.9	1 57.9	− 23 31 25.6	+ 31.6	D.	One reading at edge of field. Faint.
28	. .	. .	. .	− 34.8	62 19 31.8	1 57.6	− 23 27 50.2	+ 30.7	D.	
29	. .	. .	. .	+ 1 51.5	62 21 58.1	1 57.8	− 23 30 16.7	+ 30.5	D.	
30	. .	. .	. .	− 2 38.2	51 32 28.8	1 17.8	− 12 40 7.4	+ 26.3	D.	
31	30.393	34.5	26.8	+ 3 25.3	51 38 32.3	1 18.1	− 12 46 11.2	+ 26.3	D.	
32	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
33	. .	. .	. .	+ 41.3	20 0 44.5	21.8	+ 18 52 32.9	+ 37.6	D.	
34	. .	. .	. .	− 1 45.8	13 43 16.9	14.6	+ 25 10 7.7	+ 35.1	D.	
35	30.000	39.2	37.0	+ 2 10.8	40 22 12.4	50.9	− 1 29 24.1	+ 44.0	D.	
36	. .	. .	. .	− 1 41.2	62 8 21.9	1 52.9	− 23 16 35.6	+ 50.4	D.	
37	. .	. .	. .	− 29.4	56 44 33.9	1 31.2	− 17 52 25.9	+ 48.4	D.	
38	. .	. .	. .	− 30.7	43 9 33.6	55.9	− 4 16 50.3	+ 43.6	D.	
39	30.012	39.0	36.0	+ 2 41.8	23 42 46.2	26.4	+ 15 10 26.6	+ 36.0	D.	
40	. .	. .	. .	+ 46.8	24 15 51.5	27.1	+ 14 37 20.6	+ 35.5	D.	
41	. .	. .	36.0	+ 1 1.6	73 46 4.9	3 23.5	− 34 55 49.2	+ 50.2	D.	
42	. .	. .	. .	+ 1 59.1	33 57 3.8	40.4	+ 4 55 55.0	+ 37.6	D.	
43	. .	. .	. .	+ 1 2.0	S. 16 11 8.2	17.4	+ 22 42 13.6	+ 30.7	D.	
44	. .	. .	. .	+ 25.4	N. 10 29 27.0	11.1	+ 49 23 17.3	+ 21.7	D.	
45	. .	. .	. .	+ 1 5.2	S. 11 11 7.3	11.9	+ 27 42 20.0	+ 27.2	D.	
46	30.024	37.2	35.0	− 2 16.4	71 12 45.9	2 55.2	− 32 22 1.9	+ 44.8	D.	
47	. .	. .	. .	+ 2 13.9	71 32 16.2	2 58.5	− 32 41 35.5	+ 43.7	D.	
48	. .	. .	. .	− 4 6.2	24 10 56.1	27.0	+ 14 42 16.1	+ 29.1	D.	
49	. .	. .	34.7	− 2 6.9	66 37 54.5	2 18.5	− 27 46 33.8	+ 40.0	D.	
50	. .	. .	. .	+ 2 22.5	18 42 24.0	20.4	+ 20 10 54.8	+ 25.2	D.	
51	. .	. .	. .	− 19.6	18 39 41.9	20.3	+ 20 13 37.0	+ 25.1	D.	
52	. .	. .	. .	+ 1 54.0	11 46 55.5	12.6	+ 27 6 31.1	+ 21.6	Y.	Whole rev. recorded 26.
53	30.024	36.0	34.3	− 31.7	11 54 30.7	12.7	+ 26 58 55.8	+ 20.7	Y.	
54	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
55	30.108	37.0	29.7	− 59.1	66 19 5.6	2 18.3	− 27 27 44.7	+ 49.0	Y.	
56	. .	. .	. .	− 2 30.3	48 57 34.3	1 10.0	− 10 5 5.1	+ 42.8	Y.	
57	30.108	36.6	29.6	+ 1 44.1	61 51 48.3	1 53.7	− 23 0 2.8	+ 45.6	Y.	
58	. .	. .	. .	+ 1 51.3	26 36 56.1	30.6	+ 12 16 12.5	+ 33.5	Y.	
59	. .	. .	. .	− 51.9	38 54 13.6	49.2	− 0 1 23.6	+ 36.5	Y.	
60	. .	. .	. .	+ 2 17.3	15 37 25.1	17.1	+ 23 15 57.0	+ 27.7	Y.	
61	. .	. .	. .	− 31.5	15 34 36.3	17.0	+ 23 18 45.9	+ 26.7	Y.	
62	30.112	36.4	29.1	− 6.2	15 35 1.6	17.0	+ 23 18 20.6	+ 27.4	Y.	
63	. .	. .	. .	+ 2 22.1	61 32 28.8	1 52.3	− 22 40 41.9	+ 41.1	Y.	
64	. .	. .	. .	− 46.7	66 4 17.3	2 16.9	− 27 12 55.0	+ 41.1	Y.	
65	. .	. .	. .	− 2 12.0	66 37 54.6	2 20.6	− 27 46 36.0	+ 40.1	Y.	
66	. .	. .	. .	+ 3 12.3	69 18 18.3	2 40.5	− 30 27 19.6	+ 39.7	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES. A.	B.	C.	D.	E.	F.	Mean.	MICROMETER. Observed.	Nadir cor.	Cor.
						° ′ ″	″	″	″	″	″	″	r.	r.	r.
1868. Jan. 25	1	Lacaille 1395 . .	8.5	3	V-IX.	159 15 7.1	10.1	8.9	6.2	5.1	58.8	6.03	28.503	. .	[illegible]
	2	Lacaille 1463 . .	. .	3	III-VII.	161 35 8.4	11.1	10.2	8.7	6.4	1.0	7.63	33.107	. .	33.534
	3	υ^7 Eridani	5.0	3	III-VII.	159 40 9.5	11.3	11.5	9.7	7.7	2.1	8.63	27.230	. .	[illegible]
	4	B. A. C. 1460 . .	5.5	3	III-VII.	118 0 8.0	9.8	5.1	5.2	4.9	2.1	5.85	30.891	. .	[illegible]
	5	ω Eridani	5.5	3	III-VII.	134 35 5.8	9.7	5.5	4.4	5.2	0.1	5.12	32.752	. .	[illegible]
	6	B. A. C. 1562 . . .	. .	3	III-VII.	102 40 8.7	12.3	9.1	9.2	9.8	3.4	8.75	32.199	. .	[illegible]
	7	γ Orionis	4.5	3	III-VII.	122 40 6.8	10.8	6.6	7.0	5.5	1.6	6.38	30.650	. .	[illegible]
	8	ζ Orionis	5.0	3	III-VII.	130 55 7.0	9.7	6.0	3.9	4.6	1.0	5.37	31.883	. .	[illegible]
	9	139 Tauri	5.5	3	III-VII.	103 0 5.4	10.6	7.1	6.7	6.6	1.2	6.27	34.589	. .	35.004
	10	μ Orionis	5.5	3	III-VII.	119 15 4.9	7.9	1.1	3.2	2.2	56.1	2.57	30.368	. .	[illegible]
	11	71 Orionis	6.0	3	III-VII.	109 40 6.6	10.6	5.2	5.8	4.8	58.8	5.30	26.797	. .	27.213
	12	Nadir	. .	5	. .	270 0 5.8	9.2	5.9	6.9	5.1	0.8	5.62	29.639	. .	. .
30	13	Anon. 3h. 29m. 29s. .	7.0	2	I, IX.	105 35 7.3	16.7	10.2	13.2	10.2	2.4	10.00	30.830	+ 0.358	[illegible]
	14	Anon. 3h. 29m. 37s. .	7.5	3	IV-VI.	" " "	"	"	"	"	"	"	25.345	. .	[illegible]
	15	B. A. C. 1186 . .	6.0	3	III-VII.	" " "	"	"	"	"	"	"	29.934	. .	[illegible]
	16	Lacaille 1288 . .	7.0	3	III-VII.	154 25 8.0	13.7	9.5	9.8	6.2	59.6	7.80	29.466	. .	[illegible]
	17	Weisse (2) III, 1210	9.0	3	III-VII.	112 40 9.0	15.4	11.3	12.2	9.1	4.4	10.23	34.561	. .	[illegible]
	18	Lalande 7819 . .	6.0	3	III-VII.	138 5 6.7	14.1	8.2	10.7	6.3	58.1	7.35	34.198	. .	[illegible]
	19	Weisse IV, 81 . .	6.5	3	IV-VI.	" " "	"	"	"	"	"	"	32.529	. .	[illegible]
	20	Lacaille 1410 . .	7.0	3	III-VII.	163 20 9.0	15.1	11.5	14.1	8.4	0.2	9.73	27.644	. .	[illegible]
	21	Anon. 4h. 17m. 48s. .	8.3	3	V-IX.	157 25 5.9	11.5	7.0	9.8	4.1	57.9	6.03	31.097	. .	[illegible]
	22	Anon. 4h. 29m. 0s. .	7.5	3	III-VII.	159 40 7.8	13.9	11.4	12.0	6.8	59.6	8.58	25.741	. .	[illegible]
	23	υ^7 Eridani	4.5	3	III-VII.	" " "	"	"	"	"	"	"	27.381	. .	[illegible]
	24	O. Arg. S. 3360 . .	8.3	3	III-VII.	157 45 8.4	14.4	10.9	11.9	8.1	59.4	8.85	29.066	. .	[illegible]
	25	Weisse (2) IV, 1079 .	9.5	2	V, IX.	98 55 8.6	16.1	11.3	13.7	8.5	0.5	9.78	28.734	. .	[illegible]
	26	Anon. 4h. 56m. 33s. .	7.8	1	IX.	160 25 7.1	15.8	12.4	13.7	7.9	0.2	9.52	26.201	. .	[illegible]
	27	B. A. C. 1555 . .	7.5	2	V, VII.	" " "	"	"	"	"	"	"	27.360	. .	[illegible]
	28	Lacaille 2124 . .	5.5	3	III-VII.	161 0 8.9	18.0	13.5	15.4	9.6	1.4	11.13	27.719	. .	[illegible]
	29	Lacaille 2177 . .	7.2	3	III-VII.	155 55 8.5	17.9	11.3	15.4	10.8	1.2	10.85	33.136	. .	[illegible]
	30	Anon. 6h. 13m. 6s. .	9.2	3	III-VII.	157 45 10.2	19.3	14.1	17.0	11.2	1.6	12.23	26.276	. .	[illegible]
	31	48 Aurigæ	5.5	3	III-VII.	98 20 7.9	14 6	12.0	13.3	7.9	0.2	9.32	31.194	. .	[illegible]
	32	Anon. 6h. 25m. 33s. .	9.0	3	V-IX.	158 50 8.8	18.8	13.2	17.0	9.3	1.0	11.35	34.951	. .	[illegible]
	33	Lacaille 2388 . .	5.7	3	III-VII.	159 10 12.4	20.2	17.2	20.0	11.9	3.6	14.22	26.434	. .	[illegible]
	34	Lacaille 2448, (1st *)	7.5	2	I, IX.	157 15 10.0	16.7	12.1	15.4	7.8	1.3	10.55	27.326	. .	[illegible]
	35	Lacaille 2448, (2d *)	8.0	3	III-VII.	" " "	"	"	"	"	"	"	25.633	. .	[illegible]
	36	Lacaille 2519 . .	5.8	3	V-IX.	160 30 9.1	16.4	13.8	15.4	8.4	0.9	10.67	31.558	. .	[illegible]
	37	Lacaille 2528 . .	5.5	3	V-IX.	" " "	"	"	"	"	"	"	33.402	. .	33.773
	38	O. Arg. S. 6164 . .	7.3	3	III-VII.	159 25 9.3	17.1	13.5	16.7	8.9	0.2	10.95	28.336	. .	[illegible]
	39	Anon. 7h. 6m. 32s. .	7.5	3	III-VII.	143 10 9.2	17.8	13.8	16.5	10.7	1.3	11.55	32.265	. .	[illegible]
	40	Anon. 7h. 8m. 25s. .	8.5	3	V-IX.	" " "	"	"	"	"	"	"	25.231	. .	25.504
	41	O. Arg. S. 6666 . .	8.0	2	III, VII, IX.	156 45 10.2	20.7	14.9	19.1	11.9	2.0	13.13	28.682	. .	29.054
	42	Lacaille 2824 . .	5.5	3	III-VII.	166 20 6.8	15.9	8.8	15.7	7.8	59.1	9.02	26.179	. .	26.545
	43	O. Arg. S. 7100 . .	8.5	3	III-VII.	157 55 9.8	19.7	14.7	18.1	11.4	1.1	12.47	29.460	. .	29.824
	44	Anon. 7h. 46m. 54s. .	9.0	3	III-VII.	154 55 9.8	18.7	12.7	16.4	9.6	1.1	11.38	26.040	. .	26.403
	45	Anon. 7h. 47m. 38s. .	7.0	2	VII, IX.	" " "	"	"	"	"	"	"	27.950	. .	28.323
	46	Anon. 7h. 49m. 49s. .	7.0	3	III-VII.	" " "	"	"	"	"	"	"	27.349	. .	27.712
	47	Nadir	. .	5	. .	270 0 7.9	14.3	8.0	16.1	4.8	1.1	8.70	29.800	. .	. .
31	48	Weisse II, 820 . .	. .	3	III-VII.	129 30 8.0	6.0	3.0	4.2	4.0	58.0	3.87	32.995	+ 0.406	33.401
	49	Weisse II, 1066 . .	9.0	3	III-VII.	115 5 6.1	6.0	3.2	4.0	4.1	58.2	3.60	25.765	. .	[illegible]
	50	Weisse III, 101 . .	. .	2	V, VII.	116 15 6.0	4.1	3.0	2.1	3.8	58.0	2.83	22.994	. .	[illegible]
	51	O. Arg. S. 2237 . .	. .	3	III-VII.	146 50 6.2	5.0	3.0	3.8	2.5	56.7	2.87	35.221	. .	[illegible]
	52	Groombridge 698 .	. .	3	IV-VI.	86 35 6.6	5.0	6.0	6.1	5.0	0.7	4.90	28.031	. .	28.434
	53	Anon. 3h. 32m. 9s. .	9.0	3	III-VII.	151 25 6.0	5.0	4.9	4.8	3.0	56.0	3.28	31.804	. .	32.214
	54	27 Tauri	. .	3	IV-VI.	105 15 6.0	5.0	4.9	5.0	5.0	59.0	4.15	30.490	. .	[illegible]
	55	O. Arg. S. 2710 . .	9.0	3	III-VII.	158 0 5.8	4.0	4.3	4.3	1.9	55.1	2.57	28.688	. .	[illegible]
	56	O. Arg. S. 2796 . .	. .	3	III-VII.	149 45 5.5	4.2	4.5	4.0	2.7	55.9	2.80	30.670	. .	[illegible]
	57	Weisse (2) IV, 436 .	. .	3	III-VII.	101 45 5.1	4.6	2.5	4.1	2.1	55.9	2.38	26.019	. .	26.420
	58	Weisse IV, 554 . .	6.0	3	III-VII.	123 35 4.9	4.0	3.2	3.0	2.2	56.3	2.27	28.164	. .	[illegible]
	59	Weisse IV, 794 . .	. .	3	III-VII.	114 30 4.6	4.9	3.9	3.7	2.9	56.9	2.82	28.603	. .	[illegible]
	60	B. A. C. 1510 . .	. .	3	IV-VI.	55 0 5.0	3.0	6.0	6.0	2.3	56.2	3.08	25.129	. .	[illegible]
	61	Anon. 4h. 54m. 11s. .	9.0	2	VI, VII.	122 50 5.0	3.7	2.4	3.0	1.2	57.0	2.05	29.162	. .	[illegible]
	62	Lacaille 1770 . .	. .	3	III-VII.	157 20 4.9	4.0	2.9	3.9	2.0	54.0	1.95	28.328	. .	[illegible]
		O. Arg. S. 3920 . .	8.5	3	III, IV, VI.	145 0 4.8	4.1	2.0	1.0	2.3	54.0	1.37	25.008	. .	25.416
		Lalande 10426 . .	. .	3	III-VII.	128 55 4.6	4.0	1.1	1.5	3.0	55.0	1.53	23.543	. .	23.949
		Rumker 1576 . .	9.0	3	III, V, IX.	105 20 5.1	6.0	5.9	5.8	5.0	57.5	4.22	32.298	. .	[illegible]
		Anon. 5h. 49m. 6s. .	9.0	2	IV, VI.	121 30 6.0	5.1	3.8	4.3	3.8	57.0	3.33	19.314	. .	19.719

Number.	Barometer.	THERM'S.		Instrumental corrections.	Apparent Zenith distance.		Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.								
	in.	°	°	′ ″		° ′ ″	′ ″	° ′ ″	″		
1	30.110	36.2	28.8	+ 33.4	S.	69 15 39.4	2 40.1	− 30 24 40.3	+ 39.5	Y.	
2	. .	. .	. .	− 1 50.8		71 33 16.8	3 1.5	− 32 42 39.1	+ 37.8	Y.	Faint.
3	. .	. .	. .	+ 1 13.5		69 41 22.1	2 43.9	− 30 50 26.8	+ 36.1	Y.	
4	. .	. .	. .	− 41.0		27 59 24.8	32.5	+ 10 53 41.9	+ 24.2	Y.	
5	30.108	35.8	28.3	− 1 39.5		44 33 25.6	1 0.2	− 5 40 46.6	+ 27.4	Y.	
6	. .	. .	. .	− 1 21.9		12 38 46.8	13.7	+ 26 14 38.7	+ 17.0	Y.	Quite hazy and cloudy.
7	. .	. .	29.4	− 33.5		32 39 32.8	39.1	+ 6 13 27.3	+ 19.2	Y.	
8	30.103	35.3	29.5	− 1 12.2		40 53 53.1	52.8	− 2 1 6.7	+ 18.4	Y.	
9	. .	. .	. .	− 2 36.8		12 57 29.4	14.0	+ 25 55 55.8	+ 9.7	Y.	
10	. .	. .	. .	− 24.6		29 14 37.9	34.2	+ 9 38 27.1	+ 12.3	Y.	
11	30.094	35.1	29.4	+ 1 27.3		19 41 32.6	21.8	+ 19 11 44.8	+ 8.5	Y.	Night unfavorable for small stars.
12	. .	. .	. .	. .		. . . . .	. .	. . . . .	. .	Y.	
13	. .	. .	. .	− 36.6		15 34 33.4	17.6	+ 23 18 48.2	+ 27.8	Y.	
14	. .	. .	. .	+ 2 14.7		15 37 24.7	17.6	+ 23 15 56.9	+ 27.8	Y.	
15	30.350	25.0	17.4	− 9.0		15 35 1.0	17.6	+ 23 18 20.6	+ 27.5	Y.	
16	. .	. .	. .	+ 5.4		64 25 13.2	2 11.3	− 25 33 45.3	+ 41.8	Y.	
17	. .	. .	. .	− 2 34.1		22 37 36.1	26.3	+ 16 15 36.8	+ 28.1	Y.	
18	. .	. .	. .	− 2 22.9		48 2 44.4	1 10.2	− 9 10 15.4	+ 35.3	Y.	
19	30.346	24.6	16.7	− 1 30.5		48 3 36.8	1 10.2	− 9 11 7.8	+ 35.1	Y.	
20	. .	. .	. .	+ 1 2.4		73 21 12.1	3 29.2	− 34 31 2.1	+ 40.5	Y.	
21	. .	. .	. .	− 46.0		67 24 20.0	2 31.1	− 28 33 11.9	+ 38.4	Y.	
22	. .	. .	. .	+ 2 2.1		69 42 10.6	2 49.8	− 30 51 21.2	+ 36.9	Y.	
23	30.350	25.0	16.1	+ 1 10.7		69 41 19.2	2 49.7	− 30 50 29.7	+ 36.8	Y.	
24	. .	. .	. .	+ 17.9		67 45 26.7	2 33.9	− 28 54 21.4	+ 34.6	Y.	
25	. .	. .	. .	+ 28.9		8 55 38.6	10.0	+ 29 57 50.6	+ 17.0	Y.	Faint.
26	. .	. .	. .	+ 1 46.9		70 26 56.4	2 57.1	− 31 36 14.3	+ 32.2	Y.	
27	30.354	24.9	15.1	+ 1 11.4		70 26 20.9	2 57.0	− 31 35 38.7	+ 32.3	Y.	
28	30.354	23.6	12.3	+ 1 0.0		71 1 11.1	3 3.9	− 32 10 35.8	+ 19.6	Y.	
29	. .	. .	. .	− 1 49.7		65 53 21.1	2 22.0	− 27 2 3.9	+ 17.5	Y.	
30	. .	. .	. .	+ 1 45.3		67 46 57.5	2 35.5	− 28 55 53.8	+ 16.3	Y.	
31	. .	. .	. .	− 48.5		8 19 20.8	9.4	+ 30 34 9.0	+ 4.0	Y.	
32	30.358	23.3	10.7	− 2 46.8		68 47 24.5	2 43.9	− 29 56 29.2	+ 13.7	Y.	
33	. .	. .	. . .	+ 1 40.4		69 11 54.6	2 47.4	− 30 21 2.8	+ 11.8	Y.	
34	. .	. .	. .	+ 1 11.8		67 16 22.3	2 32.0	− 28 25 15.1	+ 9.9	Y.	
35	. .	. .	. .	+ 2 5.5		67 17 16.0	2 32.1	− 28 26 8.9	+ 9.9	Y.	
36	. .	. .	. .	− 1 0.5		70 29 10.1	2 59.2	− 31 38 30.1	+ 8.6	Y.	
37	. .	. .	. .	− 1 58.2		70 28 12.4	2 59.0	− 31 37 32.2	+ 8.3	Y.	
38	30.364	22.6	11.0	+ 40.7		69 25 51.6	2 49.4	− 30 35 1.8	+ 6.4	Y.	
39	. .	. .	. .	− 1 22.3		53 8 49.2	1 25.3	− 14 16 35.3	+ 3.4	Y.	
40	. .	. .	. .	+ 2 18.1		53 12 29.6	1 25.5	− 14 20 15.9	+ 3.1	Y.	
41	. .	. .	. .	+ 29.6		66 45 42.7	2 28.3	− 27 54 31.8	+ 2.6	Y.	
42	. .	. .	. .	+ 1 48.3		76 21 57.3	4 19.6	− 37 32 37.7	+ 1.2	Y.	
43	30.374	22.1	10.7	+ 5.5		67 55 17.9	2 37.0	− 29 4 15.7	− 0.7	Y.	
44	. .	. .	. .	+ 1 52.7		64 57 4.0	2 16.7	− 26 5 41.5	− 4.2	Y.	
45	. .	. .	. .	+ 52.6		64 56 3.9	2 16.6	− 26 4 41.3	− 4.4	Y.	
46	30.378	22.0	10.0	+ 1 11.7		64 56 23.0	2 16.6	− 26 5 0.4	− 4.8	Y.	
47	. .	. .	. .	. .		. . . . .	. .	. . . . .	. .	Y.	
48	30.510	29.0	23.2	− 1 46.6		39 28 17.2	51.6	− 0 35 29.6	+ 41.6	D.	Whole rev. not recorded.
49	. .	. .	. .	+ 2 0.1		25 7 3.7	29.4	+ 13 46 6.1	+ 35.3	D.	
50	. .	. .	. .	+ 3 26.9		26 18 29.7	31.0	+ 12 34 38.5	+ 35.1	D.	
51	. .	. .	22.0	− 2 56.5	S.	56 47 6.3	1 35.8	− 17 55 2.9	+ 44.1	D.	
52	. .	. .	. .	+ 49.1	N.	3 24 6.0	3.8	+ 42 17 49.0	+ 23.3	D.	
53	30.528	28.0	22.0	− 1 9.4	S.	61 23 53.8	1 54.9	− 22 32 9.5	+ 43.6	D.	
54	. .	. .	. .	− 28.0		15 14 36.1	17.2	+ 23 38 45.9	+ 27.5	D.	
55	. .	. .	. .	+ 28.2		68 0 30.7	2 34.8	− 29 9 26.3	+ 42.3	D.	
56	. .	. .	21.7	− 33.9		59 44 28.9	1 47.6	− 20 52 37.3	39.4	D.	
57	. .	. .	. .	+ 1 52.2		11 46 54.5	13.2	+ 27 6 31.5	+ 21.5	D.	
58	. .	. .	. .	+ 44.9		33 35 47.1	41.9	+ 5 17 10.2	+ 27.7	D.	
59	. .	. .	. .	+ 31.1	S.	24 30 33.9	28.8	+ 14 22 36.5	+ 23.4	D.	
60	. .	. .	. .	+ 2 20.3	N.	34 57 36.7	44.2	+ 73 52 0.1	+ 6.3	D.	
61	. .	. .	. .	+ 13.6	S.	32 50 15.6	40.8	+ 6 2 42.8	+ 23.4	D.	
62	30.564	26.0	19.1	+ 39.5		67 20 41.4	2 30.8	− 28 29 33.0	+ 29.3	D.	
63	. .	. .	. .	+ 2 23.7		55 2 25.0	1 30.4	− 16 10 16.2	+ 25.1	D.	
64	. .	. .	. .	+ 3 9.6		38 58 11.1	51.2	− 0 5 23.1	+ 19.9	D.	
65	. .	. .	. .	− 1 24.5		15 18 39.7	17.4	+ 23 34 42.1	+ 11.3	D.	
66	. .	. .	.	+ 5 22.2	S.	31 35 25.5	39.0	+ 7 17 34.7	+ 14.2	D.	

DATE.	Number.		OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.									MICROMETER.		
							A.			B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Corr'd
							°	′	″	″	″	″	″	″	″	r.	r.	r.
1868. Jan. 31	1		Anon. 5h. 50m. 38s.	9.5	2	VI, VIII.	121	30	6.0	5.1	3.8	4.3	3.8	57.0	3.33	20.102	. .	20.5
	2		Nadir	. .	5	. .	270	0	5.8	4.0	3.1	6.0	2.0	57.9	3.13	29.574	. .	
Feb. 1	3	22	Pleiadum	7.5	3	V-IX	105	20	6.8	11.8	7.2	8.0	8.8	2.0	7.43	23.618	+ 0.414	24.03
	4		Anon. 3h. 51m. 6s.	8.0	3	III-VII.	147	50	4.5	6.1	3.9	1.9	2.1	56.2	2.45	32.375	. .	32.7
	5		Anon. 3h, 38m. 1s.	8.5	3	III-VII.	155	45	6.8	8.9	6.2	4.9	6.1	0.0	5.48	34.629	. .	35.04
	6		Lalande 7819	7.0	3	V-IX.	138	5	5.3	8.5	2.9	4.8	3.9	58.4	4.13	34.014	. .	34.431
	7		Weisse IV, 81	7.0	3	V-IX.	"	"	"	"	"	"	"	"	"	32.303	. .	32.72
	8		B. A. C. 1355	7.3	2	III, VII.	154	55	7.4	11.1	7.6	6.4	7.1	1.5	6.85	31.227	. .	31.64
	9		O. Arg. S. 3022	8.7	2	V, IX.	"	"	"	"	"	"	"	"	"	32.310	. .	32.73
	10		Weisse (2) IV, 535	8.5	3	III-VII.	109	20	7.4	11.3	6.5	5.7	6.5	0.9	6.38	26.887	. .	27.2
	11		Anon. 4h. 32m. 39s.	8.0	3	III-VII.	156	25	7.4	11.2	6.9	6.7	7.1	0.1	6.57	33.174	. .	33.5
	12		Lacaille 1580	7.0	3	III-VII.	154	15	9.5	12.8	9.1	7.8	8.3	1.6	8.18	27.975	. .	28.3
	13		Anon. 4h. 4m. 32s.	7.5	3	III-VII.	159	45	8.9	12.1	9.9	9.3	7.8	1.1	8.18	31.574	. .	31.9
	14		Lacaille 1693	6.5	3	III-VII.	160	25	4.2	6.2	5.2	3.9	2.4	57.8	3.28	32.603	. .	33.023
	15		O. Arg. S. 3710	8.5	3	III-VII.	154	35	7.5	10.2	7.1	5.8	6.1	0.0	6.12	35.122	. .	35.541
	16		Weisse (2) V, 287	8.5	3	III-VII.	98	30	9.4	14.8	9.8	10.1	10.8	3.2	9.68	27.188	. .	27.5
	17		O. Arg. S. 3917	9.5	2	V, IX	145	5	8.7	14.2	8.4	8.0	9.1	2.8	8.53	32.952	. .	33.3
	18		Lacaille 1906	7.0	3	III-VII.	159	30	8.3	12.4	9.9	9.1	7.5	0.3	7.92	32.725	. .	33.145
	19		B. A. C. 1812	6.0	3	III-VII.	"	"	"	"	"	"	"	"	"	35.011	. .	35.431
	20		O. Arg. S. 4355	8.5	3	III-VII.	155	15	6.8	11.6	7.4	6.7	6.7	59.4	6.43	29.622	. .	30.041
	21		O. Arg. S. 4457	8.5	3	V-IX.	158	0	8.4	12.8	9.2	9.7	8.2	1.4	8.28	28.039	. .	28.4
	22		Anon. 5h. 58. 27s.	9.2	3	III-VII.	143	40	8.8	12.6	9.1	8.9	8.6	1.9	8.32	26.694	. .	27.111
	23		Lacaille 2177	7.0	3	III-VII.	155	55	8.4	12.0	8.1	8.3	7.2	1.1	7.52	32.890	. .	33.3
	24		B. A. C. 2060	7.5	2	I, IX.	124	15	10.6	16.9	12.2	12.2	12.8	5.0	11.62	32.818	. .	33.2
	25	8	Monocerotis	5.5	3	III-VII.	"	"	"	"	"	"	"	"	"	32.370	. .	32.7
	26		Anon. 6h. 29m. 49s.	7.0	3	III-VII.	158	50	9.6	14.7	10.7	11.3	9.1	2.3	9.62	28.667	. .	29.0
	27		Anon. 6h. 47m. 5s.	8.5	3	V-IX.	157	20	7.5	12.5	6.8	8.9	7.3	1.6	7.43	29.590	. .	30.0
	28		Anon. 6h. 55m. 11s.	7.5	3	III-VII.	159	45	7.3	10.8	9.0	9.1	5.5	0.4	7.02	31.061	. .	31.4
	29		Lacaille 2623	8.3	3	III-VII.	155	0	7.7	11.8	9.2	8.0	7.7	1.8	7.70	27.983	. .	28.40
	30		O. Arg. S. 6490	7.3	3	III-VII.	157	0	8.7	12.3	8.9	9.8	7.9	1.7	8.22	30.530	. .	30.950
	31		Anon. 7h. 17m. 33s.	7.5	3	III-VII.	159	55	6.7	10.7	8.8	7.5	6.3	59.3	6.55	37.979	. .	38.3
	32		Anon. 7h. 18m. 28s.	8.0	3	V-IX.	"	"	"	"	"	"	"	"	"	32.061	. .	32.4
	33		Nadir	. .	5	. .	270	0	7.4	10.4	6.1	7.3	5.8	0.6	6.27	29.666	. .	. .
3	34		Lacaille 1137	. .	2	VII, IX.	154	55	8.9	14.3	9.2	11.2	7.1	2.2	8.82	33.104	+ 0.392	33.50
	35	22	Pleiadum	7.5	3	III-VII.	105	20	7.1	13.0	7.6	10.8	6.8	2.4	7.95	23.699	. .	24.056
	36		B. A. C. 1195	7.0	.	III-VII.	"	"	"	"	"	"	"	"	"	30.095	. .	30.452
	37		O. Arg. S. 2637	8.5	3	IV-VI.	149	55	6.4	10.7	7.8	10.1	4.3	58.5	6.30	26.752	. .	27.145
	38		Lacaille 1317	7.2	3	III-VII.	155	45	9.3	14.1	9.8	11.9	7.6	1.2	8.98	29.951	. .	30.348
	39		Anon. 4h. 2m. 4s.	9.0	2	V, IX.	136	40	6.4	13.1	5.9	9.3	6.2	0.5	6.90	24.115	. .	24.510
	40		Lacaille 1389	7.0	3	III-VII.	161	15	6.3	11.4	8.0	9.2	3.8	59.4	6.35	32.460	. .	32.859
	41		Lacaille 1433	8.3	3	III-VII.	164	5	8.7	15.8	9.8	12.9	8.7	1.2	9.52	34.087	. .	34.486
	42		Weisse IV, 471	9.0	3	III-VII.	139	40	9.6	17.1	9.8	13.0	10.1	2.3	10.32	32.089	. .	32.483
	43	53	Eridani	5.0	3	V-IX.	143	25	9.2	17.0	10.2	13.0	9.9	2.8	10.35	27.324	. .	27.722
	44		O. Arg. S. 3326	7.5	3	V-IX.	152	45	6.3	12.2	6.8	9.8	4.6	59.2	6.48	30.492	. .	30.893
	45		Anon. 4h. 51m. 0s.	9.5	3	III-VII.	154	40	7.7	14.5	9.8	9.3	6.7	0.7	8.12	24.599	. .	24.996
	46		O. Arg. S. 3720	9.0	3	III-VII.	154	25	7.1	13.6	9.1	9.3	6.2	58.8	7.35	29.576	. .	29.973
	47		Lacaille 1827	7.0	3	III-VII.	160	45	8.2	15.4	11.7	12.3	7.3	59.9	9.13	33.159	. .	33.557
	48		Anon. 5h. 25m. 2s.	8.5	3	V-IX.	157	20	8.4	17.2	11.8	14.0	9.2	1.3	10.32	22.478	. .	22.881
	49		Weisse V, 776	7.0	3	IV, V, VII.	130	10	6.1	12.0	7.4	9.0	6.8	0.1	6.90	33.717	. .	34.109
	50		Lacaille 1977	5.8	3	III-VII.	160	35	6.4	14.9	11.0	10.8	6.8	59.6	8.25	30.849	. .	31.247
	51		Weisse V, 1220	8.3	3	III-VII.	133	0	5.5	13.8	8.4	10.8	6.5	58.5	7.25	34.329	. .	34.72
	52		Lacaille 2124	5.5	3	III-VII.	161	0	6.7	15.2	11.8	12.8	6.2	0.3	8.83	27.700	. .	28.09
	53		O. Arg. S. 5176	7.3	3	V-IX.	154	40	8.1	16.4	10.9	12.9	8.8	1.1	9.70	30.325	. .	30.72
	54		O. Arg. S. 5289	6.5	3	V-IX.	155	5	7.0	14.1	8.1	11.4	6.9	0.4	7.98	28.878	. .	29.28
	55		Nadir 6h. 45m.	. .	5	. .	270	0	7.5	13.9	9.1	14.1	6.9	0.9	8.73	29.767	. .	. .
6	56		B. A. C. 940	. .	3	III-VII.	154	40	8.0	4.4	5.0	1.0	3.9	58.8	3.52	29.455	+ 0.398	29.85
	57		Lacaille 1010	. .	3	III-VII.	156	55	8.0	5.0	5.0	2.0	5.1	58.9	4.00	28.138	. .	28.54
	58	15	Eridani	. .	3	III-VII.	151	50	8.5	5.9	5.9	1.3	5.9	58.0	4.25	26.317	. .	26.71
	59		Rumker, N. F., 875	9.0	3	III-VII.	116	25	8.3	6.0	5.2	2.3	5.1	0.9	4.63	27.030	. .	27.4
	60		O. Arg. S. 2452	. .	3	III-VII.	157	15	10.1	7.0	7.9	5.1	7.1	59.7	6.15	29.306	. .	29.71
	61		B. A. C. 1188	7.0	3	III-VII.	105	25	7.4	6.1	7.1	3.9	7.2	0.2	5.32	26.444	. .	26.8
	62		Weisse (2) III, 1266	. .	2	III, V.	108	0	7.2	6.0	5.2	1.9	5.7	59.0	4.17	31.462	. .	31.85
	63		Weisse (2) III, 1275	. .	3	V-IX.	"	"	"	"	"	"	"	"	"	31.847	. .	32.2
	64		Lacaille 1373	. .	3	IV-VI.	154	20	8.0	6.0	6.0	1.2	4.9	59.0	4.18	33.171	. .	33.57
	65		Lacaille 1410	7.5	3	IV-VI.	163	20	8.0	6.0	6.5	4.0	5.8	59.1	4.90	27.356	. .	27.75
	66		Lacaille 1416	7.5	3	IV-VI.	"	"	"	"	"	"	"	"	"	35.120	. .	35.5

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	30.570	23.8	18.6	+ 4 57.7	S. 31 35 1.0	39.0	+ 7 17 59.2	+ 13.9	D.	Uncertain.
2	. . .	. . .	. . .	. .	. . . . .	. .	. . . . .	. .	D.	Mercury unsteady.
3	30.546	29.6	20.9	+ 3 7.3	15 23 14.7	17.4	+ 23 30 7.1	+ 27.8	Y.	
4	. . .	. . .	. . .	− 1 27.5	57 48 34.9	1 40.0	− 18 56 35.7	+ 40.2	Y.	
5	. . .	. . .	. . .	− 2 38.2	65 42 27.2	2 19.1	− 26 51 7.1	+ 41.3	Y.	
6	. . .	. . .	. . .	− 2 18.9	48 2 45.2	1 10.1	− 9 10 16.1	+ 35.5	Y.	
7	30.540	29.1	20.4	− 1 25.2	48 3 38.9	1 10.1	− 9 11 9.8	+ 35.4	Y.	
8	. . .	. . .	. . .	− 51.7	64 54 15.1	2 14.1	− 26 2 50.0	+ 38.4	Y.	
9	. . .	. . .	. . .	− 1 25.7	64 53 41.1	2 14.1	− 26 2 16.0	+ 38.4	Y.	
10	. . .	. . .	. . .	+ 1 24.7	19 21 31.0	22.2	+ 19 31 46.0	+ 23.4	Y.	
11	30.528	28.8	20.0	− 1 52.6	66 23 13.9	2 23.6	− 27 31 58.3	+ 36.0	Y.	
12	. . .	. . .	. . .	+ 50.3	64 15 58.4	2 10.4	− 25 24 29.6	+ 34.1	Y.	
13	. . .	. . .	. . .	− 1 2.5	69 44 5.6	2 49.7	− 30 53 16.1	+ 34.1	Y.	
14	. . .	. . .	. . .	− 1 34.7	70 23 28.5	2 55.8	− 31 32 45.1	+ 32.5	Y.	
15	30.520	28.0	19.8	− 2 53.7	64 32 12.4	2 12.0	− 25 40 45.2	+ 30.1	Y.	
16	. . .	. . .	. . .	+ 1 15.4	8 31 25.0	9.5	+ 30 22 4.7	+ 13.8	Y.	
17	. . .	. . .	. . .	− 1 45.9	55 3 22.6	1 30.2	− 16 11 13.6	+ 25.4	Y.	
18	. . .	. . .	. . .	− 1 38.6	69 28 29.3	2 47.6	− 30 37 37.7	+ 25.8	Y.	
19	30.510	27.6	18.8	− 2 50.2	69 27 17.7	2 47.5	− 30 36 26.0	+ 24.5	Y.	
20	. . .	. . .	. . .	− 1.3	65 15 5.1	2 16.5	− 26 23 42.4	+ 22.4	Y.	
21	. . .	. . .	. . .	+ 48.1	68 0 56.3	2 35.7	− 29 9 52.8	+ 21.4	Y.	
22	. . .	. . .	. . .	+ 1 30.5	53 41 38.8	1 25.9	− 14 49 25.5	+ 17.4	Y.	
23	. . .	. . .	. . .	− 1 43.7	65 53 23.8	2 20.6	− 27 2 5.2	+ 17.9	Y.	
24	. . .	. . .	. . .	− 1 41.2	34 13 30.4	43.0	+ 4 39 25.8	+ 10.1	Y.	
25	30.490	26.8	18.4	− 1 27.2	34 13 44.4	43.0	+ 4 39 11.8	+ 10.1	Y.	
26	. . .	. . .	. . .	+ 28.6	68 50 38.2	2 42.3	− 29 59 41.3	+ 13.3	Y.	
27	. . .	. . .	. . .	− 0.5	67 20 6.9	2 30.6	− 28 28 58.3	+ 9.4	Y.	
28	30.472	26.5	18.1	− 46.4	69 44 20.6	2 50.1	− 30 53 31.5	+ 7.8	Y.	
29	. . .	. . .	. . .	+ 50.1	65 0 57.8	2 15.1	− 26 9 33.7	+ 5.9	Y.	
30	. . .	. . .	. . .	− 29.8	66 59 38.4	2 28.2	− 28 8 27.4	+ 4.4	Y.	
31	. . .	. . .	. . .	− 4 23.2	69 50 43.3	2 51.1	− 30 59 55.2	+ 2.9	Y.	
32	30.470	26.5	18.0	− 1 18.0	69 53 48.5	2 51.5	− 31 3 0.8	+ 2.7	Y.	
33	. . .	. . .	. . .	. .	. . . . .	. .	. . . . .	. .	Y.	
34	30.566	23.1	12.3	− 1 49.9	64 53 18.9	2 16.5	− 26 1 56.2	+ 45.2	Y.	
35	. . .	. . .	. . .	+ 3 5.3	15 23 13.2	17.7	+ 23 30 8.3	+ 27.9	Y.	
36	. . .	. . .	. . .	− 15.1	15 19 52.8	17.6	+ 23 33 28.8	+ 27.5	Y.	
37	. . .	. . .	. . .	+ 1 29.5	59 56 35.8	1 50.7	− 21 4 47.3	+ 41.3	Y.	
38	30.560	22.0	12.2	− 10.9	65 44 58.0	2 22.0	− 26 53 40.8	+ 41.8	Y.	
39	. . .	. . .	. . .	+ 2 52.1	46 42 59.0	1 8.2	− 7 50 28.0	+ 35.6	Y.	
40	. . .	. . .	. . .	− 1 29.6	71 13 36.7	3 7.7	− 32 23 5.2	+ 41.2	Y.	
41	. . .	. . .	. . .	− 2 20.6	74 2 48.9	3 42.5	− 35 12 52.2	+ 40.5	Y.	
42	30.572	21.0	11.0	− 1 17.8	49 38 52.5	1 15.8	− 10 46 29.1	+ 33.4	Y.	
43	. . .	. . .	. . .	+ 1 11.4	53 26 21.7	1 26.8	− 14 34 9.3	+ 33.1	Y.	
44	. . .	. . .	. . .	− 28.0	62 44 38.4	2 4.8	− 23 53 4.0	+ 34.6	Y.	
45	. . .	. . .	. . .	+ 2 36.8	64 42 44.9	2 16.2	− 25 51 21.9	+ 32.7	Y.	
46	30.560	20.1	9.2	+ 0.8	64 25 8.1	2 14.5	− 25 33 43.4	+ 30.3	Y.	
47	. . .	. . .	. . .	− 1 51.5	70 43 17.6	3 3.6	− 31 52 42.0	+ 28.9	Y.	
48	. . .	. . .	. . .	+ 3 43.1	67 23 53.4	2 34.7	− 28 32 48.9	+ 27.0	Y.	
49	. . .	. . .	. . .	− 2 8.8	40 7 58.1	54.6	− 1 15 13.5	+ 19.6	Y.	
50	30.550	20.0	7.7	− 39.1	70 34 29.1	3 2.5	− 31 43 52.4	+ 24.4	Y.	
51	. . .	. . .	. . .	− 2 28.0	42 57 39.2	1 0.5	− 4 5 0.5	+ 17.3	Y.	
52	30.540	19.6	6.3	+ 59.6	71 1 8.4	3 7.5	− 32 10 36.7	+ 20.6	Y.	
53	. . .	. . .	. . .	− 22.8	64 39 46.9	2 16.9	− 25 48 24.6	+ 14.5	Y.	
54	30.526	18.2	5.7	+ 22.6	65 5 30.5	2 19.6	− 26 14 10.9	+ 13.6	Y.	
55	. . .	. . .	. . .	. .	. . . . .	. .	. . . . .	. .	Y.	
	29.824	31.5	25.0	+ 4.4	64 40 7.9	2 8.3	− 25 48 37.0	+ 49.0	D.	
	. . .	. . .	. . .	+ 45.7	66 55 49.7	2 22.6	− 28 4 33.1	+ 48.2	D.	
	. . .	. . .	24.4	+ 1 42.8	61 51 47.0	1 53.8	− 23 0 1.6	+ 46.4	D.	
	. . .	. . .	. . .	+ 1 20.7	26 26 25.3	30.4	+ 12 26 43.5	+ 33.7	D.	
	. . .	. . .	. . .	+ 9.1	67 15 15.2	2 25.3	− 28 24 1.3	+ 45.1	D.	
	29.871	30.7	23.2	+ 1 39.1	15 26 44.4	16.9	+ 23 26 37.9	+ 27.7	D.	
	. . .	. . .	. . .	− 58.2	17 59 5.9	20.0	+ 20 54 13.3	+ 26.4	D.	
	. . .	. . .	. . .	− 1 10.1	17 58 54.0	19.9	+ 20 54 25.3	+ 26.4	D.	
	. . .	. . .	. . .	− 1 51.9	64 18 12.2	2 7.2	− 25 26 40.2	+ 40.3	D.	
	. . .	. . .	. . .	+ 1 10.3	73 21 15.2	3 23.3	− 34 30 59.3	+ 41.2	D.	
	29.592	30.0	22.2	− 2 53.0	S. 73 17 11.9	3 22.5	− 34 26 55.2	+ 41.0	D.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.									MICROMETER.		
						A.			B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Cor'd.
1868.						°	'	"	"	"	"	"	"	"	r.	r.	r.
Feb. 6	1	Weisse IV, 471 . .	9.0	3	V–IX.	139	40	8.0	5.2	4.8	2.1	5.9	58.0	4.00	31.739	. .	32.141
	2	Weisse (2) IV, 866 .	7.0	3	III–VII.	99	20	8.8	7.0	7.0	4.6	5.2	0.8	5.57	27.050	. .	27.454
	3	O. Arg. S. 3513 . .	9.0	3	V–VII.	156	45	9.0	7.9	7.0	6.0	7.0	59.4	6.05	26.947	. .	27.345
	4	O. Arg. S. 3630 . .	. .	3	III, V, IX.	"	"	"	"	"	"	"	"	"	34.950	. .	35.354
	5	O. Arg. S. 3862 . .	8.0	3	V–IX.	157	55	8.0	7.1	7.0	4.8	6.0	58.4	5.22	35.243	. .	35.653
	6	Schjellerup 1787 .	8.0	3	III–VII.	129	15	8.8	7.2	5.1	4.0	6.9	0.3	5.38	28.998	. .	[illegible]
	7	B. A. C. 1775 . .	. .	3	III–VII.	157	35	8.7	7.1	7.1	6.0	6.0	59.0	5.65	22.011	. .	22.413
	8	B. A. C. 1786 . .	. .	2	IV, V.	"	"	"	"	"	"	"	"	"	32.001	. .	32.403
	9	B. A. C. 1787 . .	. .	4	VI–IX.	"	"	"	"	"	"	"	"	"	24.537	. .	24.943
	10	Nadir	. .	5	. .	270	0	8.9	8.0	6.9	6.9	6.9	1.1	6.45	29.688	. .	. .
7	11	Lacaille 1374 . .	7.0	3	III–VII.	163	40	9.8	12.8	10.1	9.0	8.2	3.1	8.83	27.498	+ 0.393	[illegible]
	12	Weisse IV, 387 . .	8.0	3	III–VII.	112	20	11.4	14.1	11.6	11.0	11.2	4.8	10.68	29.339	. .	29.726
	13	Lalande 8577 . .	7.5	3	III–VII.	152	35	9.4	13.1	11.4	9.9	8.2	2.2	9.03	32.347	. .	32.745
	14	Lacaille 1537 . .	6.8	3	III–VII.	166	55	11.4	14.9	13.1	13.3	10.5	3.0	11.03	29.655	. .	30.050
	15	O. Arg. S. 3360 . .	7.3	3	III–VII.	157	45	7.0	11.8	7.8	9.0	6.5	59.3	6.90	28.892	. .	29.291
	16	Anon. 4h. 47m. 32s. .	7.3	3	III–VII.	159	45	6.5	11.6	9.1	8.9	6.1	59.4	6.93	31.619	. .	32.013
	17	γ^1 Cœli	5.5	3	III–VII.	164	30	6.7	12.7	7.2	8.4	7.5	0.9	7.23	29.421	. .	29.821
	18	Weisse V, 56 . .	9.2	3	III–VII.	124	45	5.3	11.6	9.4	8.2	7.4	0.1	7.00	33.913	. .	34.305
	19	B. A. C. 1673 . .	5.7	3	III–VII.	163	20	6.7	12.9	8.8	9.4	7.9	0.9	7.77	31.453	. .	31.853
	20	Anon. 5h. 22m. 45s. .	8.0	3	III–VII.	158	35	3.9	11.7	6.5	7.6	5.7	58.1	5.58	34.613	. .	35.012
	21	Anon. 5h. 29m. 50s. .	8.3	2	VII, IX.	130	15	4.4	10.8	4.4	6.0	5.7	58.5	4.97	34.945	. .	35.336
	22	Lacaille 1977 . .	5.8	3	III–VII.	160	35	6.6	12.4	9.9	8.8	7.7	59.0	7.40	30.734	. .	31.133
	23	β Aurigæ	3.0	3	III–VII.	84	0	5.5	10.3	9.8	8.2	6.7	59.4	6.65	33.669	. .	34.052
	24	Weisse VI, 73 . .	8.0	3	III–VII.	138	15	8.4	15.7	10.1	10.9	9.6	1.2	9.32	34.459	. .	34.854
	25	Weisse (2) VI, 301 .	7.5	3	III–VII.	84	25	4.9	11.4	10.2	10.5	7.9	0.4	7.55	28.427	. .	28.819
	26	O. Arg. N. 6888 .	7.7	3	V–IX.	82	30	4.2	11.7	7.7	9.7	5.9	59.6	6.47	33.494	. .	[illegible]
	27	Anon. 6h. 26m. 56s. .	8.5	3	III–VII.	160	0	6.3	13.2	9.6	10.2	6.2	59.3	7.47	28.984	. .	29.383
	28	Anon. 6h. 34m. 15s. .	8.3	3	III–VII.	157	10	3.7	10.3	5.2	7.7	3.2	56.3	4.40	28.138	. .	28.537
	29	O. Arg. S. 5704 . .	8.5	3	III–VII.	155	15	3.5	10.4	5.7	7.0	4.0	55.7	4.38	29.514	. .	29.912
	30	Lacaille 2526 . .	6.5	3	III–VII.	154	15	3.9	10.8	7.1	6.1	4.3	56.1	4.72	34.089	. .	34.487
	31	22 Canis Majoris . .	5.0	3	III–VII.	156	35	4.1	10.1	4.9	7.0	4.5	56.0	4.43	27.170	. .	27.565
	32	O. Arg. S. 6232 . .	6.0	3	V–IX.	155	20	5.7	13.9	9.0	9.0	8.0	58.4	7.33	32.110	. .	32.513
	33	O. Arg. S. 6810 . .	6.5	3	III–VII.	155	25	6.3	13.2	9.1	9.9	7.4	58.0	7.32	32.916	. .	33.314
	34	Lacaille 2813 . .	5.8	3	III–VII.	"	"	"	"	" "	"	"	"	"	28.063	. .	28.451
	35	O. Arg. S. 7167 . .	7.0	3	III–VII.	160	0	5.8	12.5	9.1	9.9	5.3	58.1	6.78	29.178	. .	29.577
	36	Weisse VII, 1232 .	8.5	2	III, V.	140	45	6.4	12.9	9.6	9.6	7.1	58.2	7.30	29.249	. .	29.641
	37	5 Puppis	5.5	3	V–IX.	"	"	"	" "	"	"	"	"	"	30.172	. .	30.566
	38	Nadir 8h. 15m. . .	. .	5	. .	270	0	4.7	12.3	6.4	10.2	4.8	59.1	6.25	29.687	. .	. .
	39	Weisse (2) VIII, 790	8.0	3	III–VII.	108	55	4.6	10.4	3.3	6.5	2.3	57.3	4.07	34.601	. .	34.992
	40	ϵ Cancri	7.0	2	VII, IX.	"	"	"	"	"	"	"	"	"	33.767	. .	34.145
11	41	Anon. 4h. 16m. 52s. .	8.2	3	III–VII.	112	20	1.7	5.2	1.1	0.3	1.3	54.8	0.73	25.018	+ 0.520	25.535
	42	Weisse IV, 387 . .	7.7	3	III–VII.	"	"	"	"	"	"	"	"	"	28.902	. .	29.414
	43	B. A. C. 1439 . .	6.0	3	III–VII.	159	50	3.8	7.6	5.3	4.2	2.6	55.9	3.23	28.818	. .	29.344
	44	Lacaille 1464 . .	5.8	3	III–VII.	"	"	"	"	"	"	"	"	"	25.702	. .	26.228
	45	Lacaille 1595 . .	7.2	3	III–VII.	164	50	4.2	9.1	5.2	4.9	3.8	57.0	4.03	23.712	. .	24.240
	46	Lacaille 1704 . .	5.7	3	III–VII.	153	24	60.4	63.9	60.7	59.4	57.9	53.2	59.25	26.898	. .	27.423
	47	Weisse V, 145 . .	9.0	3	III–VII.	126	30	4.7	9.7	3.1	4.0	4.1	57.9	3.92	32.251	. .	32.771
	48	Anon. 5h. 12m. 52s. .	7.5	2	I, IX.	154	15	5.8	9.9	6.4	4.8	4.8	58.1	4.97	28.832	. .	29.375
	49	Anon. 5h. 12m. 53s. .	7.8	3	IV–VI.	"	"	"	"	"	"	"	"	"	25.315	. .	25.835
	50	Anon. 5h. 23m. 15s. .	8.5	3	III–VII.	155	30	2.9	6.9	2.9	2.9	1.1	55.2	1.98	31.899	. .	32.424
	51	O. Arg. S. 4142 . .	9.0	2	I, IX.	160	0	5.1	9.5	7.0	7.0	3.9	57.1	4.93	25.200	. .	25.740
	52	Lacaille 1916 . .	8.0	3	IV–VI.	"	"	"	"	"	"	"	"	"	30.201	. .	30.723
	53	Anon. 5h. 39m. 3s. .	8.3	3	V–IX.	159	30	4.9	10.6	7.1	7.9	3.7	57.7	5.32	26.874	. .	27.406
	54	Lacaille 2015 . .	6.0	3	IV–VI.	161	40	6.4	10.4	6.1	7.7	3.9	58.6	5.52	26.218	. .	26.741
	55	O. Arg. S. 4453 . .	7.2	3	IV–VI.	157	50	4.4	10.8	5.2	7.7	4.2	57.0	4.88	29.579	. .	30.101
	56	Lacaille 2107 . .	7.0	3	III–VII.	156	20	3.2	8.9	3.0	5.7	2.3	56.8	3.32	35.031	. .	35.556
	57	Lacaille 2163 . .	7.4	3	III–VII.	159	50	3.1	6.5	4.6	5.9	0.2	55.6	2.65	27.065	. .	27.591
	58	l Orionis	5.5	3	V–IX.	118	55	3.8	9.8	3.4	5.0	2.4	57.1	3.58	31.423	. .	31.939
	59	8 Monocerotis . .	6.0	2	I, IX.	124	15	2.6	9.7	3.9	5.4	3.2	57.6	3.73	31.999	. .	32.515
	60	B. A. C. 2060 . .	8.3	3	IV–VI.	"	"	"	"	"	"	"	"	"	32.392	. .	32.912
	61	Anon. 6h. 29m. 51s. .	7.0	3	III–VII.	158	50	5.2	12.3	6.2	7.9	3.7	57.5	5.47	28.361	. .	28.887
	62	O. Arg. S. 5519 . .	8.0	3	III–VII.	156	35	6.4	13.3	6.5	8.8	5.5	58.7	6.53	26.028	. .	26.553
	63	Anon. 6h. 44m. 37s. .	7.0	2	III, V.	161	10	6.1	13.1	9.1	9.0	5.1	58.9	6.88	21.096	. .	21.621
	64	χ Canis Majoris . .	5.0	2	VII, IX.	"	"	"	"	"	"	"	"	"	25.044	. .	25.564
	65	Anon. 6h. 53m. 38s. .	8.5	3	III–VII.	155	0	0.5	7.2	1.9	2.9	0.8	54.9	1.37	35.480	. .	36.005
	66	O. Arg. S. 6164 . .	7.3	3	III–VII.	159	25	4.9	11.2	7.1	7.9	3.1	57.1	5.22	27.788	. .	28.314

Number.	Barometer.	THERM'S.		Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.							
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	− 1 7.1	S. 49 38 56.9	1 12.4	− 10 46 30.1	+ 33.6	D.	
2	. .	. .	. .	+ 1 19.8	9 21 25.3	10.2	+ 29 32 3.7	+ 18.2	D.	
3	29.924	29.0	21.5	+ 1 23.1	66 46 29.1	2 22.9	− 27 55 12.8	+ 33.5	D.	
4	. .	. .	. .	− 2 48.0	66 42 18.0	2 22.5	− 27 51 1.3	+ 32.1	D.	
5	. .	. .	. .	− 2 57.2	67 52 8.0	2 30.9	− 29 0 59.7	+ 29.6	D.	
6	. .	. .	21.0	+ 19.0	39 15 24.3	50.5	− 0 22 35.6	+ 21.3	D.	
7	. .	. .	. .	+ 3 57.7	67 39 3.3	2 29.3	− 28 47 53.4	+ 26.2	D.	
8	. .	. .	. .	− 1 15.2	67 33 50.4	2 28.7	− 28 42 39.9	+ 25.9	D.	Whole rev. assumed.
9	29.942	28.0	21.0	+ 2 38.3	67 37 43.9	2 29.2	− 28 46 33.9	+ 25.9	D.	
10	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
11	30.316	27.7	17.4	+ 1 5.9	73 41 14.7	3 32.7	− 34 51 8.2	+ 42.5	Y.	
12	. .	. .	. .	+ 8.5	22 20 19.1	25.9	+ 16 32 54.2	+ 25.4	Y.	
13	. .	. .	. .	− 1 26.0	62 33 43.0	2 0.9	− 23 42 4.7	+ 36.8	Y.	
14	30.322	26.8	17.6	− 1.8	76 55 9.2	4 26.1	− 38 5 56.1	+ 38.9	Y.	
15	. .	. .	. .	+ 22.2	67 45 29.1	2 33.2	− 28 54 23.1	+ 35.6	Y.	
16	. .	. .	. .	− 1 3.3	69 44 3.6	2 49.5	− 30 53 13.9	+ 34.8	Y.	
17	. .	. .	. .	+ 5.6	74 30 12.8	3 44.8	− 35 40 18.4	+ 33.5	Y.	
18	30.336	26.0	16.5	− 2 14.9	34 42 52.1	43.8	+ 4 10 3.3	+ 22.6	Y.	
19	. .	. .	. . .	− 58.1	73 19 9.6	3 28.5	− 34 28 58.9	+ 30.1	Y.	
20	. .	. .	. .	− 2 37.1	68 32 28.4	2 39.8	− 29 41 29.0	+ 28.1	Y.	
21	. .	. .	. .	− 2 47.3	40 12 17.6	53.4	− 1 19 31.8	+ 20.1	Y.	
22	30.344	25.2	16.3	− 35.5	S. 70 34 31.9	2 57.9	− 31 43 50.6	+ 25.0	Y.	
23	. .	. .	. .	− 2 7.0	N. 6 2 0.4	6.7	+ 44 55 46.3	+ 4.2	Y.	
24	30.350	24.8	15.4	− 2 32.1	S. 48 12 37.2	1 10.8	− 9 20 8.8	+ 15.9	Y.	
25	. .	. .	. .	+ 37.3	N. 5 34 15.2	6.2	+ 44 28 0.6	+ 1.2	Y.	
26	. .	. .	. .	− 2 1.1	N. 7 31 54.7	8.4	+ 46 25 42.3	− 0.1	Y.	
27	. .	. .	. .	+ 19.3	S. 70 0 26.7	2 53.7	− 31 9 41.2	+ 15.3	Y.	
28	30.368	24.0	12.5	+ 45.8	67 10 50.2	2 30.8	− 28 19 41.8	+ 13.3	Y.	
29	. .	. .	. .	+ 2.8	65 15 7.1	2 17.8	− 26 23 45.7	+ 11.3	Y.	
30	. .	. .	. .	− 2 20.6	64 12 44.1	2 11.5	− 25 21 16.4	+ 9.5	Y.	
31	. .	. .	. .	+ 1 16.2	66 36 20.6	2 26.7	− 27 45 8.1	+ 8.6	Y.	
32	30.370	23.0	12.7	− 1 18.8	65 18 48.5	2 18.1	− 26 27 27.4	+ 7.3	Y.	
33	. .	. .	. .	− 1 43.9	65 23 23.4	2 19.1	− 26 32 3.3	+ 3.3	Y.	
34	30.384	22.8	11.2	+ 48.2	65 25 55.5	2 19.4	− 26 34 35.7	+ 2.9	Y.	
35	. .	. .	. .	+ 13.3	70 0 20.0	2 54.7	− 31 9 35.5	+ 1.0	Y.	
36	. .	. .	. .	+ 11.1	50 45 18.4	1 18.4	− 11 52 57.6	− 2.2	Y.	
37	30.380	22.0	10.6	− 17.8	50 44 49.5	1 18.4	− 11 52 28.7	− 2.3	Y.	
38	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
39	. .	. .	. .	− 2 36.4	18 52 27.6	22.0	+ 20 0 49.6	− 13.4	Y.	
40	30.384	22.2	9.7	− 2 10.0	18 52 54.0	22.0	+ 20 0 23.2	− 13.5	Y.	
41	. .	. .	. .	+ 2 19.9	22 22 20.6	25.6	+ 16 30 53.0	+ 25.8	Y.	Whole rev. not recorded.
42	30.336	29.3	24.7	+ 18.2	22 20 18.9	25.5	+ 16 32 54.8	+ 25.5	Y.	
43	. .	. .	. .	+ 20.6	69 50 23.8	2 47.9	− 30 59 32.5	+ 37.8	Y.	
44	30.324	29.3	24.4	+ 1 58.2	69 52 1.4	2 48.1	− 31 1 10.3	+ 36.8	Y.	
45	. .	. .	. .	+ 3 0.5	74 53 4.5	3 46.8	− 36 3 12.1	+ 37.2	Y.	Circle reading recorded 89° 55′.
46	30.320	29.1	23.0	+ 1 20.8	63 26 20.0	2 4.1	− 24 34 44.9	+ 31.8	Y.	
47	. .	. .	. .	− 1 26.9	36 28 27.0	46.1	+ 2 24 16.1	+ 22.9	Y.	
48	. .	. .	. .	+ 19.6	64 15 24.5	2 8.8	− 25 23 54.1	+ 29.5	Y.	
49	. .	. .	. .	+ 2 10.5	64 17 15.4	2 9.0	− 25 25 45.2	+ 29.5	Y.	
50	30.334	28.9	22.1	− 1 16.0	65 28 45.9	2 16.2	− 26 37 22.9	+ 27.8	Y.	
51	. .	. .	. .	+ 2 13.2	70 2 18.1	2 50.8	− 31 11 29.7	+ 27.0	Y.	
52	. .	. .	. .	− 22.7	69 59 42.2	2 50.4	− 31 8 53.4	+ 27.0	Y.	
53	. .	. .	. .	+ 1 21.3	69 31 26.6	2 46.4	− 30 40 33.8	+ 25.6	Y.	
54	. .	. .	. .	+ 1 42.2	71 41 47.7	3 7.6	− 32 51 16.1	+ 24.8	Y.	
55	. .	. .	. .	− 3.1	67 50 1.7	2 33.0	− 28 58 55.5	+ 23.0	Y.	
56	30.324	27.9	19.4	− 2 54.1	66 17 9.2	2 22.1	− 27 25 52.1	+ 21.5	Y.	
57	. .	. .	. .	+ 1 15.5	69 51 18.1	2 49.9	− 31 0 28.8	+ 20.6	Y.	
58	. .	. .	. .	− 1 0.8	28 54 2.7	34.7	+ 9 59 1.8	+ 10.4	Y.	
59	. .	. .	. .	− 1 18.8	34 13 44.9	42.8	+ 4 39 11.5	+ 10.6	Y.	
60	30.328	27.1	18.7	− 1 31.3	34 13 32.4	42.8	+ 4 39 24.0	+ 10.6	Y.	
61	. .	. .	. .	+ 34.9	68 50 40.3	2 41.6	− 29 59 42.7	+ 15.2	Y.	
62	. .	. .	. .	+ 1 48.0	66 36 54.5	2 24.8	− 27 45 40.1	+ 13.5	Y.	
63	. .	. .	. .	+ 4 22.6	71 14 29.4	3 3.9	− 32 23 54.1	+ 12.3	Y.	
64	30.336	26.1	17.8	+ 2 18.4	71 12 25.2	3 3.6	− 32 21 49.6	+ 12.3	Y.	
65	. .	. .	. .	− 3 8.2	64 56 53.1	2 14.2	− 26 5 28.1	+ 9.6	Y.	
66	. .	. .	. .	+ 52.8	S. 69 25 58.0	2 46.8	− 30 35 5.6	+ 9.0	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires.	MICROSCOPES.							MICROMETER.		
						A.	E.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Corr'd.
1868.						° ′ ″	″	″	″	″	″	″	r.	r.	r.
Feb. 11	1	O. Arg. S. 6343	7.3	3	III–VII.	159 20 4.6	9.8	6.2	7.9	2.9	56.8	4.70	33.200	. .	33.72
	2	Anon. 7h. 11m. 50s.	7.0	3	III–VII.	158 20 5.4	11.1	6.7	7.9	3.7	57.6	5.40	27.591	. .	28.11
	3	O. Arg. S. 6762	6.0	3	III–VII.	147 40 6.7	11.8	8.4	8.4	6.2	59.1	6.60	34.222	. .	34.74
	4	O. Arg. S. 6941	7.5	2	I, IX.	157 25 5.9	13.0	7.9	9.8	6.6	59.1	7.05	27.687	. .	28.23
	5	O. Arg. S. 6946	8.0	3	III–VII.	" " "	"	"	"	"	"	"	29.333	. .	29.8
	6	9 Puppis	5.7	3	III–VII.	142 25 4.4	11.9	7.3	8.8	4.7	57.9	5.83	28.638	. .	29.161
	7	Lacaille 3078	6.0	3	III–VII.	162 50 4.7	12.2	6.7	8.9	4.0	58.2	5.78	25.443	. .	25.97
	8	O. Arg. S. 7882	7.2	3	V–IX.	153 5 5.5	12.0	8.2	9.3	5.4	58.3	6.37	27.891	. .	28.42
	9	Anon. 8h. 6m. 40s.	7.5	3	III–VII.	157 30 0.7	5.8	1.1	3.0	0.2	54.2	0.83	33.391	. .	33.917
	10	Lacaille 3257	5.5	3	III–VII.	163 50 3.8	11.2	7.3	6.7	3.9	57.1	5.00	24.244	. .	24.771
	11	Lacaille 3302	7.0	3	III–VII.	161 20 3.6	9.9	7.1	6.7	3.3	55.4	4.33	31.253	. .	31.7
	12	Weisse (2) VIII, 713	8.5	3	III–VII.	108 55 4.1	11.8	6.2	7.1	4.5	57.4	5.18	29.971	. .	30.4
	13	Weisse (2) VIII, 793	8.0	2	I, IX.	" " "	"	"	"	"	"	"	.33.178	. .	33.680
	14	Weisse (2) VIII, 790	8.0	3	IV–VI.	" " "	"	"	"	"	"	"	34.425	. .	34.944
	15	B. A. C. 2925	6.0	2	VIII, IX.	" " "	"	"	"	"	"	"	37.853	. .	38.35
	16	O. Arg. S. 8946	9.0	2	IV, VI.	155 55 5.6	12.4	7.5	9.4	5.4	57.9	6.37	25.843	. .	26.3
	17	Nadir, 9h.	. .	5	. .	270 0 5.0	10.2	6.5	8.8	3.6	59.2	5.55	29.537	. .	. .
12	18	Weisse (2) IV, 363	8.5	3	III–VII.	110 20 5.0	2.1	1.7	59.6	2.2	55.6	1.03	32.067	+ 0.523	32.5
	19	Weisse IV, 572	8.0	3	III–VII.	128 45 7.0	4.1	2.0	2.0	4.0	58.4	2.92	29.365	. .	29.8
	20	O. Arg. S. 3326	. .	3	III–VII.	152 45 7.1	4.1	5.0	4.0	4.0	58.8	3.83	30.190	. .	30.71
	21	Anon. 4h. 46m. 33s.	8.3	3	III–VII.	127 35 7.9	3.9	2.7	1.2	4.2	57.3	2.87	30.287	. .	30.810
	22	Anon. 4h. 54m. 9s.	9.0	3	V–VII.	122 50 8.0	5.2	4.1	3.3	5.0	59.7	4.22	29.053	. .	29.575
	23	O. Arg. S. 3362	8.0	3	III–VII.	155 35 6.9	3.8	3.9	2.8	3.8	56.0	2.87	35.610	. .	36.13
	24	Weisse V, 145	. .	1	III.	126 30 6.8	4.8	3.1	1.0	4.8	58.7	3.20	32.222	. .	32.744
	25	Weisse V, 153	. .	1	V.	" " "	"	"	"	"	"	"	35.251	. .	35.774
	26	Weisse V, 156	. .	2	VII, IX.	" " "	"	"	"	"	"	"	37.606	. .	38.12
	27	B. A. C. 1670, (2d *)	9.0	2	II, IV.	153 50 6.0	3.0	3.3	1.0	2.1	55.0	1.73	36.491	. .	37.022
	28	B. A. C. 1670, (1st *)	6.0	3	VII–IX.	" " "	"	"	"	"	"	"	37.007	. .	37.545
	29	Lalande 10426	. .	3	III–VII.	129 0 7.0	4.1	2.5	1.7	4.0	58.9	3.03	32.983	. .	33.50
	30	B. A. C. 1783	. .	3	III–VII.	156 50 7.3	4.9	4.8	2.3	5.0	57.1	3.57	32.234	. .	32.76
	31	Rumker 1576	. .	2	V, VII.	105 20 7.9	6.1	6.0	4.9	7.0	1.0	5.48	32.081	. .	32.601
	32	Lacaille 2033	. .	3	III–VII.	158 20 7.0	5.8	5.8	3.9	3.0	57.0	3.75	28.830	. .	29.359
	33	Lacaille 2178	. .	3	IV–VI.	163 40 7.1	5.0	5.9	3.8	5.0	58.0	4.13	33.404	. .	33.920
	34	Weisse VI, 328	8.5	3	III–VII.	96 55 7.0	5.9	6.1	3.8	6.0	59.4	4.70	32.568	. .	33.085
	35	Lalande 12614	. .	3	III–VII.	112 20 7.2	4.0	3.5	2.9	5.0	58.9	3.58	28.725	. .	29.245
	36	Weisse (2) VI, 891	. .	2	VII, IX.	" " "	"	"	"	"	"	"	25.132	. .	25.6
	37	O. Arg. N. 7274	. .	3	IV, VI.	76 45 7.0	4.1	8.0	6.0	7.0	0.7	5.47	28.636	. .	29.153
	38	Anon. 6h. 47m. 4s.	. .	3	III–VII.	159 5 7.1	5.0	6.0	5.9	4.0	58.0	4.33	24.792	. .	25.321
	39	Lacaille 2562	. .	3	III–V.	158 20 7.1	5.3	6.0	3.7	3.3	57.0	3.73	24.435	. .	24.9
	40	Nadir	. .	5	. .	270 0 7.1	5.0	4.0	4.8	5.1	0.0	4.33	29.495	. .	. .
13	41	Anon. 4h. 11m. 46s.	9.3	3	IV–VI.	159 15 5.1	7.6	3.7	0.4	4.8	59.5	3.52	27.486	+ 0.524	28.012
	42	Lacaille 1449	7.5	3	III–VII.	164 50 7.1	9.4	4.8	2.8	7.2	2.1	5.57	31.604	. .	32.136
	43	Anon. 4h. 28m. 59s.	7.3	3	III–VII.	159 40 7.7	9.2	6.1	2.5	6.7	1.9	5.68	25.127	. .	25.657
	44	Weisse IV, 722	. .	3	III–VII.	114 20 6.4	10.3	4.8	1.8	8.8	4.6	6.12	30.707	. .	31.228
	45	Weisse (2) IV, 886	7.7	3	V–IX.	104 20 3.7	5.9	1.9	59.4	6.2	0.9	3.00	23.603	. .	24.11
	46	O. Arg. S. 3488	8.0	3	III–VII.	155 50 6.3	7.5	2.9	0.4	5.7	1.2	4.00	32.387	. .	32.916
	47	Anon. 4h. 56m. 24s.	8.0	2	I, IX.	160 25 3.2	3.9	2.2	58.2	2.9	59.5	1.65	26.445	. .	26.99
	48	Anon. 4h. 56m. 31s.	8.3	3	IV, V, VII.	" " "	"	"	"	"	"	"	25.174	. .	25.702
	49	Lacaille 1693	6.5	2	VIII, IX.	" " "	"	"	"	"	"	"	32.102	. .	32.640
	50	12 Aurigæ	6.0	3	IV–VI.	82 40 8.1	10.2	6.2	3.9	10.2	4.6	7.20	33.373	. .	33.8
	51	Anon. 5h. 12m. 53s.	8.0	2	III, VII.	154 15 9.1	10.7	6.7	1.9	9.2	4.0	6.93	25.084	. .	25.615
	52	Anon. 5h. 12m. 53s.	7.5	2	V, IX.	" " "	"	"	"	"	"	"	28.632	. .	29.1
	53	Lacaille 1844	7.0	3	III–VII.	161 30 6.4	8.0	5.1	2.7	5.7	1.7	4.93	33.117	. .	33.64
	54	Rumker 1473	7.5	3	III–VII.	107 45 7.6	10.9	6.1	1.9	8.9	3.7	6.52	26.627	. .	27.147
	55	Σ Cat. Gen. 599	8.3	3	V–IX.	" " "	"	"	"	"	"	"	24.679	. .	25.19
	56	Lacaille 1967	6.5	3	III–VII.	162 50 7.8	9.2	5.7	3.8	6.7	4.1	6.22	25.729	. .	26.25
	57	O. Arg. S. 4355	7.4	3	III–VII.	155 15 9.2	11.4	7.7	3.7	10.2	4.1	7.72	29.324	. .	29.853
	58	Anon. 5h. 50m. 46s.	8.8	2	IV, VI.	121 35 6.0	7.9	1.9	0.7	5.8	2.1	4.07	35.027	. .	35.550
	59	Anon. 5h. 58m. 27s.	9.5	3	III–VII.	143 40 6.7	8.5	4.5	1.2	7.3	1.6	4.97	26.245	. .	26.772
	60	Anon. 6h. 4m. 55s.	8.5	3	V–IX.	106 25 7.8	11.8	5.9	3.6	10.2	4.9	7.37	31.678	. .	32.193
	61	Anon. 6h. 13m. 5s.	9.5	3	III–VII.	157 50 5.9	8.6	3.1	1.8	6.2	0.9	4.42	35.012	. .	35.542
	62	49 Aurigæ	5.0	3	III–VII.	100 45 6.8	7.4	3.9	1.2	7.2	2.7	4.87	27.164	. .	27.6
	63	O. Arg. S. 2343	7.0	3	V–IX.	152 55 5.5	6.2	3.3	59.5	4.2	0.2	3.15	33.884	. .	34.399
	64	B. A. C. 2210	5.5	3	IV–VI.	51 45 7.1	9.4	7.1	5.2	8.3	5.7	7.13	27.638	. .	28.149
	65	θ Canis Majoris	4.5	3	V–IX.	140 45 8.9	10.3	6.2	3.8	8.1	3.8	6.85	29.215	. .	29.74
	66	Weisse (2) VI, 1728	9.0	3	III–VII.	85 55 6.8	9.1	7.9	5.4	9.4	5.0	7.27	25.106	. .	25.62

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	− 1 56.8	S. 69 18 7.9	2 45.7	− 30 27 14.4	+ 7.7	Y.	
2	30.350	25.8	17.7	+ 59.0	68 21 4.4	2 37.8	− 29 30 3.0	+ 6.2	Y.	
3	. .	. .	. .	− 2 28.8	57 37 37.8	1 39.2	− 18 45 37.8	+ 3.5	Y.	
4	. .	. .	. .	+ 55.4	67 26 2.4	2 30.9	− 28 34 54.1	+ 3.3	Y.	
5	. .	. .	. .	+ 4.4	67 25 11.4	2 30.8	− 28 34 3.0	+ 3.3	Y.	
6	. .	. .	. .	+ 26.3	52 25 32.1	1 21.8	− 13 33 14.7	− 2.3	Y.	
7	30.342	25.4	17.7	+ 2 6.3	72 52 12.0	3 22.4	− 34 1 55.2	− 2.1	Y.	
8	. .	. .	. .	+ 49.6	63 5 55.9	2 3.9	− 24 14 20.6	− 3.8	Y.	
9	. .	. .	. .	− 2 2.8	67 27 58.0	2 31.3	− 28 36 50.1	− 5.4	Y.	
10	. .	. .	. .	+ 2 43.9	73 52 48.9	3 36.0	− 35 2 45.7	− 6.6	Y.	
11	. .	. .	. .	− 55.8	71 19 8.5	3 5.4	− 32 28 34.7	− 7.8	Y	
12	. .	. .	. .	− 15.2	18 54 49.9	21.7	+ 19 58 27.6	− 13.3	Y.	
13	. .	. .	. .	− 1 55.3	18 53 9.8	21.7	+ 20 0 7.7	− 13.6	Y.	
14	. .	. .	. .	− 2 35.0	18 52 30.1	21.7	+ 20 0 47.4	− 13.6	Y.	
15	30.360	25.7	15.7	− 4 22.0	18 50 43.1	21.6	+ 20 2 34.5	− 13.8	Y.	
16	. .	. .	. .	+ 1 53.9	65 57 0.2	2 21.3	− 27 5 42.3	− 12.1	Y.	
17	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	Y.	
18	. .	. .	. .	− 1 21.1	20 18 39.9	22.9	+ 18 34 36.4	+ 25.0	D.	
19	30.388	31.0	27.4	+ 3.5	38 45 6.4	49.6	+ 0 7 43.2	+ 29.8	D.	
20	. .	. .	. .	− 22.5	62 44 41.3	1 59.7	− 23 53 1.8	+ 35.3	D.	
21	. .	. .	. .	− 25.4	37 34 37.4	47.6	+ 1 18 14.2	+ 26.6	D.	
22	. .	. .	. .	+ 13.3	32 50 17.5	40.0	+ 6 2 41.7	+ 23.9	D.	
23	. .	. .	26.7	− 3 12.4	65 31 50.4	2 15.4	− 26 40 26.6	+ 32.0	D.	
24	. .	. .	. .	− 1 26.0	36 28 37.2	45.8	+ 2 24 16.2	+ 22.9	D.	
25	. .	. .	. .	− 3 1.0	36 27 2.2	45.8	+ 2 25 51.2	+ 22.9	D.	
26	. .	. .	. .	− 4 14.8	36 25 48.4	45.7	+ 2 27 5.1	+ 22.9	D.	
27	. .	. .	. .	− 3 40.1	63 46 21.6	2 5.3	− 24 54 47.7	+ 28.9	D.	
28	. .	. .	. .	− 3 56.5	63 46 5.2	2 5.2	− 24 54 31.2	+ 28.9	D.	
29	. .	. .	. .	− 1 49.9	38 58 13.1	50.1	− 0 5 24.0	+ 20.7	D.	
30	30.380	30.0	26.4	− 1 26.6	66 48 36.9	2 23.9	− 27 57 21.6	+ 26.6	D.	
31	. .	. .	. .	− 1 21.5	15 18 43.9	17.0	+ 23 34 38.3	+ 11.1	D.	
32	. .	. .	. .	+ 20.1	68 20 23.8	2 35.2	− 29 29 19.8	+ 24.0	D.	
33	. .	. .	25.4	− 2 3.1	73 38 1.0	3 28.9	− 34 47 50.7	+ 21.1	D.	
34	. .	. .	. .	− 1 36.7	6 53 28.0	7.5	+ 32 0 3.7	+ 3.9	D.	
35	. .	. .	. .	+ 23.7	22 20 27.2	25.6	+ 16 32 46.4	+ 5.7	D.	
36	. .	. .	. .	+ 2 16.5	S. 22 22 20.0	25.6	+ 16 30 53.6	+ 5.3	D.	
37	. .	. .	. .	+ 26.5	N. 13 14 28.1	14.6	+ 52 8 21.9	− 5.1	D.	
38	30.370	29.3	24.9	+ 2 26.6	S. 69 7 30.9	2 41.8	− 30 16 33.5	+ 11.8	D.	
39	. .	. .	. .	+ 2 37.9	68 22 41.6	2 35.8	− 29 31 38.2	+ 10.1	D.	
40	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
41	30.030	38.8	36.2	+ 1 2.3	69 16 5.8	2 37.4	− 30 25 4.0	+ 41.0	Y.	
42	. .	. .	. .	− 1 7.0	74 48 58.5	3 37.9	− 35 58 57.2	+ 40.8	Y.	
43	. .	. .	. .	+ 2 16.1	69 42 21.7	2 41.1	− 30 51 23.6	+ 38.4	Y.	
44	30.028	38.8	35.8	− 38.5	24 19 27.6	27.2	+ 14 33 44.4	+ 24.2	Y.	
45	. .	. .	. .	+ 3 4.3	14 23 7.3	15.4	+ 24 30 16.5	+ 19.8	Y.	
46	. .	. .	. .	− 1 31.4	65 48 32.6	2 12.9	− 26 57 6.3	+ 34.2	Y.	
47	. .	. .	. .	+ 1 34.1	70 26 35.7	2 47.5	− 31 35 44.0	+ 34.0	Y.	
48	. .	. .	. .	+ 2 14.7	70 27 16.3	2 47.6	− 31 36 24.7	+ 34.0	Y.	
49	30.026	38.8	36.1	− 1 23.0	S. 70 23 38.6	2 47.1	− 31 32 46.5	+ 33.9	Y.	
50	. .	. .	. .	− 2 1.8	N. 7 21 54.6	7.8	+ 46 15 41.6	+ 9.2	Y.	
51	. .	. .	. .	+ 2 17.4	S. 64 17 24.3	2 4.2	− 25 25 49.3	+ 29.7	Y.	
52	. .	. .	. .	+ 26.1	64 15 33.0	2 4.1	− 25 23 57.9	+ 29.7	Y.	
53	. .	. .	. .	− 1 54.3	71 28 10.6	2 57.7	− 32 37 29.1	+ 29.7	Y.	
54	. .	. .	. .	+ 1 29.4	17 46 35.9	19.3	+ 21 6 44.0	+ 14.0	Y.	
55	30.030	38.6	35.0	+ 2 30.6	17 47 37.1	19.3	+ 21 5 42.8	+ 13.8	Y.	
56	. .	. .	. .	+ 1 57.3	72 52 3.5	3 12.9	− 34 1 37.2	+ 26.7	Y.	Circle reading recorded 152° 50′.
57	. .	. .	. .	+ 4.6	65 15 12.3	2 9.8	− 26 23 42.9	+ 24.1	Y.	
58	. .	. .	35.4	− 2 54.0	31 32 10.0	36.9	+ 7 20 52.3	+ 14.4	Y.	
59	. .	. .	. .	+ 1 41.2	53 41 46.1	1 21.8	− 14 49 28.7	+ 18.9	Y.	
60	. .	. .	. .	− 1 8.7	16 23 58.6	17.7	+ 22 29 22.9	+ 7.8	Y.	
61	. .	. .	. .	− 2 53.7	67 47 10.7	2 26.8	− 28 55 58.3	+ 18.8	Y.	
62	. .	. .	. .	+ 1 12.7	10 46 17.5	11.5	+ 28 7 10.2	+ 2.9	Y.	
63	30.026	37.5	32.2	− 2 17.9	S. 62 52 45.2	1 57.7	− 24 1 3.7	+ 14.4	Y.	Barometer recorded 30.326.
64	. .	. .	. .	+ 58.0	N. 38 13 54.9	47.7	+ 77 8 21.8	− 10.2	Y.	
65	. .	. .	. .	+ 8.0	S. 50 45 14.8	1 14.0	− 11 52 49.6	+ 8.8	Y.	
66	30.020	36.3	31.6	+ 2 17.3	N. 4 2 35.5	4.3	+ 42 56 18.0	− 5.3	Y.	Circle reading not recorded.

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES. A.	B.	C.	D.	E.	F.	Mean.	MICROMETER. Observed.	Nadir cor.	Corr
						° ′ ″	″	″	″	″	″	″	r.	r.	r.
1868. Feb. 13	1	26 Canis Majoris	5.5	3	V-IX.	154 35 9.4	10.4	6.1	2.4	8.8	3.9	6.83	29.079	. .	29.[illegible]
	2	Lacaille 2762	6.5	3	III-VII.	" " "	"	"	"	"	"	"	24.944	. .	25.[illegible]
	3	Lacaille 2814	7.0	3	III-VII.	157 0 4.7	5.7	2.2	0.0	4.5	59.5	2.77	33.588	. .	34.[illegible]
	4	O. Arg. S. 7026	7.5	3	III-VII.	156 55 9.0	9.5	6.7	3.9	8.1	1.9	6.52	31.170	. .	31.[illegible]
	5	Anon. 7h. 34m. 28s.	7.0	3	III-VII.	107 40 7.1	10.8	7.6	3.4	9.2	3.2	6.88	36.358	. .	36.[illegible]
	6	Weisse (2) VII, 1022	9.0	2	VII, IX.	" " "	"	"	"	"	"	"	28.202	. .	28.[illegible]
	7	Lacaille 3006	5.8	3	IV-VI.	161 50 8.0	10.3	7.8	5.1	7.7	4.0	7.15	32.750	. .	33.[illegible]
	8	Lacaille 3072	5.6	3	III-VII.	158 50 8.6	12.6	8.8	6.3	8.3	3.5	8.02	34.625	. .	35.[illegible]
	9	O. Arg. S. 7798	6.5	3	III-VII.	" " "	"	"	"	"	"	"	25.247	. .	25.[illegible]
	10	Anon. 7h. 59m. 9s.	8.8	3	V-IX.	134 10 7.5	12.7	7.2	5.4	9.6	5.0	7.90	26.312	. .	26.[illegible]
	11	Anon. 8h. 6m. 42s.	8.5	3	III-VII.	157 25 8.8	11.8	8.0	5.1	8.9	3.9	7.75	23.779	. .	24.[illegible]
	12	ω Puppis	5.0	3	IV-VI.	161 30 9.0	10.4	8.9	5.9	7.9	3.9	7.67	31.324	. .	31.[illegible]
	13	B. A. C. 2843	5.7	3	III-VII.	160 5 6.7	8.0	4.2	2.3	4.8	0.4	4.40	28.671	. .	29.[illegible]
	14	Anon. 8h. 25m. 44s.	8.5	3	V-IX.	" " "	"	"	"	"	"	"	21.342	. .	21.[illegible]
	15	Anon. 8h. 30m. 47s.	8.0	3	III-VII.	108 15 7.6	12.5	6.0	3.5	7.8	3.5	6.82	32.521	. .	33.[illegible]
	16	Anon. 8h. 32m. 23s.	8.5	2	V, VII.	" " "	"	"	"	"	"	"	27.337	. .	27.[illegible]
	17	Anon. 8h. 34m. 18s.	8.5	3	IV-VI.	" " "	"	"	"	"	"	"	28.111	. .	28.[illegible]
	18	Anon. 8h. 44m. 58s.	7.5	3	V-IX.	171 5 9.6	11.7	10.0	6.9	8.4	4.7	8.55	24.432	. .	24.[illegible]
	19	Anon. 8h. 54m. 2s.	9.0	3	III-VII.	163 40 7.2	11.3	7.8	5.6	8.9	3.9	7.45	32.929	. .	33.[illegible]
	20	Anon. 9h. 1m. 46s.	9.0	3	III-VII.	152 25 8.9	11.7	8.9	5.9	9.9	3.9	8.20	35.878	. .	36.[illegible]
	21	Anon. 9h. 10m. 13s.	8.2	3	III-VII.	156 30 6.1	7.8	3.6	1.6	4.5	0.0	3.93	27.782	. .	28.[illegible]
	22	Lacaille 3810	5.5	3	V-IX.	163 30 7.8	11.2	8.1	5.0	8.8	2.1	7.17	26.929	. .	27.[illegible]
	23	Nadir	. .	5	. .	270 0 6.4	8.8	5.1	4.7	7.1	3.1	5.87	29.543	. .	. .
14	24	Lacaille 1252	. .	3	III-VII.	160 10 6.0	5.3	5.9	3.4	2.1	56.0	3.12	34.526	+ 0.496	35.[illegible]
	25	Lacaille 1325	. .	3	III-VII.	156 45 5.0	4.2	3.1	1.7	2.9	56.0	2.15	33.739	. .	34.[illegible]
	26	Anon. 4h. 7m. 10s.	9.3	2	III, VII.	157 10 5.0	3.2	2.2	1.4	2.0	54.9	1.45	27.682	. .	28.[illegible]
	27	Anon. 4h. 17m. 47s.	8.5	3	IV-VI.	157 25 4.8	3.0	3.0	2.0	1.7	54.8	1.55	30.889	. .	31.[illegible]
	28	Anon. 4h. 28m. 35s.	9.0	3	III-VII.	101 55 4.8	4.0	2.9	3.0	1.2	56.1	2.00	30.476	. .	30.[illegible]
	29	Anon. 4h. 41m. 9s.	. .	1	VII.	118 10 3.8	2.9	59.9	58.9	0.0	54.7	0.03	30.570	. .	31.[illegible]
	30	Anon. 4h. 51m. 0s.	9.5	2	V, IX.	154 40 3.4	2.3	2.0	59.1	0.0	54.8	0.27	24.065	. .	24.[illegible]
	31	O. Arg. S. 3691	. .	3	III-VII.	158 0 5.0	4.7	4.3	4.0	2.1	55.0	2.52	28.495	. .	28.[illegible]
	32	O. Arg. S. 3790	. .	3	III-V.	156 20 4.9	4.2	2.8	2.0	1.0	55.0	1.65	30.296	. .	30.[illegible]
	33	O. Arg. S. 3812	. .	2	V, VII.	" " "	"	"	"	"	"	"	22.241	. .	22.[illegible]
	34	Weisse (2) V, 630	. .	3	III-VII.	102 25 5.0	5.1	4.2	4.1	2.1	57.0	2.92	30.048	. .	30.[illegible]
	35	Anon. 5h. 29m. 36s.	10.0	1	V.	102 15 4.0	4.0	2.9	3.2	2.0	56.0	2.02	29.260	. .	29.[illegible]
	36	O. Arg. S. 4264	. .	3	IV-VI.	156 25 4.0	3.0	2.0	1.6	0.9	54.9	1.07	23.961	. .	24.[illegible]
	37	O. Arg. S. 4294	. .	3	III-VII.	" " "	"	"	"	"	"	"	31.394	. .	31.[illegible]
	38	Anon. 5h. 53m. 5s.	. .	3	IV-VI.	105 35 4.0	4.0	4.0	3.1	3.0	56.8	2.48	32.075	. .	32.[illegible]
	39	Lalande 11343	. .	2	VIII, IX.	" " "	"	"	"	"	"	"	28.192	. .	28.[illegible]
	40	B. A. C. 2014	. .	3	IV-VI.	93 40 4.8	4.2	4.1	4.1	3.0	57.4	2.93	25.214	. .	25.[illegible]
	41	B. A. C. 2021	. .	3	IV-VI.	" " "	"	"	"	"	"	"	32.847	. .	33.[illegible]
	42	Weisse (2) VI, 891	. .	2	IV, VI.	112 20 4.4	3.2	2.9	2.0	2.0	56.1	1.77	25.152	. .	25.[illegible]
	43	Nadir	. .	5	. . .	270 0 4.2	4.9	3.1	4.0	2.7	56.2	2.52	29.464	. .	. .
18	44	Weisse (2) VI, 904	9.3	3	IV, VI, IX.	104 20 8.8	12.9	9.9	9.9	10.2	9.3	10.17	30.983	+ 0.534	31.[illegible]
	45	Lacaille 1652	7.0	3	IV-VI.	167 15 3.8	6.1	5.1	3.2	2.9	1.1	3.70	34.426	. .	34.[illegible]
	46	Weisse (2) VI, 1266	7.5	3	III-VII.	107 25 7.0	9.5	7.3	5.7	6.8	6.4	7.12	27.426	. .	27.[illegible]
	47	O. Arg. S. 3717	8.5	3	III-VII.	154 15 4.1	3.9	3.1	0.9	0.7	0.0	2.12	30.149	. .	30.[illegible]
	48	Anon. 5h. 5m. 15s.	9.3	2	VII, IX.	" " "	"	"	"	"	"	"	30.370	. .	30.[illegible]
	49	Lacaille 1806	7.0	3	III-VII.	158 15 5.1	7.5	5.2	2.9	1.9	1.9	4.08	35.428	. .	35.[illegible]
	50	Anon. 5h. 23m. 18s.	8.5	1	V.	158 20 2.8	5.3	3.2	1.2	0.5	59.1	2.02	30.219	. .	30.[illegible]
	51	Anon. 5h. 23m. 23s.	8.5	2	VII, IX.	" " "	"	"	"	"	"	"	31.222	. .	31.[illegible]
	52	Lacaille 1916	7.0	2	II, VIII.	160 0 5.1	6.9	6.9	4.2	2.8	2.4	4.72	30.020	. .	30.[illegible]
	53	O. Arg. S. 4142	8.5	3	IV-VI.	" " "	"	"	"	"	"	"	25.127	. .	25.[illegible]
	54	Lacaille 1993	6.0	3	III-VII.	164 35 7.8	10.4	8.2	7.0	7.1	5.5	7.67	31.804	. .	32.[illegible]
	55	O. Arg. N. 6356	8.5	3	IV-VI.	56 35 5.4	8.4	7.7	8.8	5.4	7.3	7.17	38.123	. .	38.[illegible]
	56	Rumker 1700	7.3	3	III-VII.	102 20 5.3	9.7	5.2	6.1	4.7	4.9	5.98	26.692	. .	27.[illegible]
	57	Anon. 6h. 4m. 55s.	8.3	3	III-VII.	106 25 7.1	11.7	8.1	7.9	7.7	6.9	8.23	31.767	. .	32.[illegible]
	58	Anon. 6h. 15m. 13s.	7.0	3	IV-VI.	158 30 7.6	10.2	9.2	8.8	6.2	4.9	7.82	39.389	. .	39.[illegible]
	59	Lacaille 2232	6.0	2	VII, IX.	" " "	"	"	"	"	"	"	33.443	. .	33.[illegible]
	60	49 Aurigæ	. .	3	III-VII.	100 45 6.7	8.8	6.2	5.9	4.4	6.0	6.33	27.243	. .	27.[illegible]
	61	Lacaille 2372	7.8	3	III-VII.	157 15 4.8	7.3	4.0	2.9	2.5	1.0	3.75	30.254	. .	30.[illegible]
	62	Anon. 6h. 34m. 15s.	7.5	3	IV-VI.	" " "	"	"	"	"	"	"	37.241	. .	37.[illegible]
	63	Lacaille 2434	5.8	3	III-VII.	159 20 5.8	7.8	7.2	5.2	3.9	2.1	5.33	32.644	. .	33.[illegible]
	64	δ Canis Majoris	5.0	3	III-VII.	140 45 6.5	8.8	6.9	6.0	4.9	4.1	6.20	29.189	. .	29.[illegible]
	65	Lacaille 2566	6.0	3	III-VII.	159 50 5.2	6.8	7.1	5.4	2.6	1.9	4.83	31.733	. .	32.[illegible]

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	+ 12.1	S. 64 35 18.9	2 6.7	− 25 43 46.4	+ 7.3	Y.	
2	. .	. .	33.3	+ 2 21.9	64 37 28.7	2 6.6	− 25 45 56.1	+ 5.1	Y.	
3	. .	. .	. .	− 2 9.1	66 57 53.6	2 21.4	− 28 6 35.8	+ 4.3	Y.	
4	30.014	35.8	31.8	− 53.3	66 54 13.2	2 21.1	− 28 2 55.1	+ 3.1	Y.	
5	. .	. .	. .	− 3 35.5	17 36 31.3	19.2	+ 21 16 48.7	− 5.7	Y.	
6	. .	. .	. .	+ 40.3	17 40 47.1	19.3	+ 21 12 32.8	− 5.8	Y.	
7	. .	. .	. .	− 1 42.7	71 48 24.4	3 2.7	− 32 57 47.9	0.0	Y.	
8	. .	. .	. .	− 2 41.6	68 47 26.4	2 35.3	− 29 56 22.5	− 1.6	Y.	
9	. .	. .	. .	+ 2 12.4	68 52 20.4	2 36.0	− 30 1 17.2	− 2.4	Y.	
10	30.018	35.2	31.0	+ 1 39.1	44 11 47.0	59.0	− 5 19 6.8	− 5.4	Y.	
11	. .	. .	. .	+ 2 58.4	67 28 6.1	2 25.5	− 28 36 52.4	− 4.9	Y.	
12	. .	. .	. .	− 58.0	71 29 9.6	2 59.5	− 32 38 29.9	− 6.7	Y.	
13	. .	. .	. .	+ 25.0	70 5 29.4	2 46.1	− 31 14 36.3	− 8.0	Y.	
14	. .	. .	. .	+ 4 14.5	70 9 18.9	2 46.6	− 31 18 26.3	− 8.7	Y.	
15	. .	. .	. .	− 1 35.3	18 13 31.5	20.0	+ 20 39 47.7	− 13.5	Y.	
16	. .	. .	. .	+ 1 7.1	18 16 13.9	20.0	+ 20 37 5.3	− 13.7	Y.	
17	30.024	35.0	31.4	+ 42.8	18 15 49.6	20.0	+ 20 37 29.6	− 14.0	Y.	
18	30.030	35.1	32.0	+ 2 37.5	81 7 46.0	6 12.0	− 42 20 18.8	− 12.8	Y.	
19	. .	. .	. .	− 1 48.5	73 38 18.9	3 23.4	− 34 48 3.1	− 14.5	Y.	
20	. .	. .	33.2	− 3 20.8	62 21 47.4	1 54.9	− 23 30 3.1	− 15.7	Y.	
21	. .	. .	. .	+ 52.9	66 30 56.8	2 18.3	− 27 39 35.9	− 17.4	Y.	
22	30.046	35.2	33.4	+ 1 19.4	73 31 26.5	3 21.7	− 34 41 9.0	− 19.2	Y.	
23	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
24	30.283	. .	27.9	− 2 37.3	70 7 25.8	2 48.9	− 31 16 35.5	+ 44.8	D.	
25	. .	31.5	. .	− 2 12.9	66 42 49.2	2 22.3	− 27 51 32.3	+ 42.5	D.	
26	. .	. .	. .	+ 56.9	67 10 58.3	2 25.9	− 28 19 45.0	+ 41.2	D.	
27	. .	. .	25.2	− 43.5	67 24 18.0	2 27.9	− 28 33 6.7	+ 39.7	D.	
28	. .	. .	. .	− 30.3	11 54 31.7	13.1	+ 26 58 54.4	+ 20.7	D.	
29	. .	. .	. .	− 33.3	28 9 26.7	33.2	+ 10 43 39.3	+ 24.5	D.	
30	30.280	30.5	24.6	+ 2 50.1	64 42 50.3	2 10.6	− 25 51 21.7	+ 33.8	D.	
31	. .	. .	. .	+ 31.4	68 0 33.9	2 32.8	− 29 9 27.5	+ 32.6	D.	
32	. .	. .	. .	− 24.9	66 19 36.7	2 21.1	− 27 28 18.6	+ 31.0	D.	
33	. .	. .	23.1	+ 3 47.4	66 23 49.0	2 21.5	− 27 32 31.3	+ 30.8	D.	
34	. .	. .	. .	− 16.9	12 24 46.0	13.7	+ 26 28 39.5	+ 13.0	D.	
35	. .	. .	. .	+ 9.6	12 15 11.6	13.5	+ 26 38 14.1	+ 12.0	D.	At edge of field. Faint; uncertain.
36	. .	. .	. .	+ 2 53.7	66 27 54.7	2 22.0	− 27 36 37.5	+ 25.5	D.	
37	30.264	30.0	23.0	− 59.4	66 24 1.6	2 21.5	− 27 32 43.9	+ 25.2	D.	
38	. .	. .	. .	− 1 20.5	15 33 41.9	17.3	+ 23 19 40.0	+ 9.4	D.	
39	. .	. .	. .	+ 41.7	15 35 44.1	17.4	+ 23 17 37.7	+ 9.4	D.	
40	. .	. .	. .	+ 2 14.5	3 42 17.4	4.0	+ 35 11 17.8	+ 3.6	D.	
41	. .	. .	. .	− 1 44.7	3 38 18.2	3.9	+ 35 15 17.1	+ 3.4	D.	
42	30.260	29.2	22.1	+ 2 16.4	22 22 18.1	25.6	+ 16 30 55.5	+ 5.4	D.	
43	. .	. .	. .	. . .	. . . .	. . .	. . . .	. .	D.	
44	30.036	36.6	30.4	− 47.3	14 19 22.8	15.5	+ 24 34 0.9	+ 19.8	Y.	
45	. .	. .	. .	− 2 35.5	77 12 28.2	4 22.2	− 38 23 11.2	+ 36.9	Y.	
46	. .	. .	. .	+ 1 4.1	17 26 11.2	19.1	+ 21 27 8.9	+ 18.6	Y.	
47	. .	. .	. .	− 21.6	64 14 40.5	2 5.5	− 25 23 6.8	+ 31.8	Y.	
48	30.030	36.4	29.5	− 28.8	64 14 33.3	2 5.5	− 25 22 59.6	+ 31.6	Y.	
49	. .	. .	. .	− 3 7.0	68 11 57.0	2 31.1	− 29 20 48.9	+ 30.6	Y.	
50	. .	. .	. .	− 23.6	68 19 38.4	2 32.1	− 29 28 31.3	+ 29.3	Y.	
51	. .	. .	. .	− 55.6	68 19 6.4	2 32.0	− 29 27 59.2	+ 29.3	Y.	
52	. .	. .	. .	− 17.9	69 59 46.8	2 45.8	− 31 8 53.4	+ 27.9	Y.	
53	30.026	36.0	29.3	+ 2 15.9	70 2 20.6	2 46.2	− 31 11 27.6	+ 27.9	Y.	
54	. .	. .	. .	− 1 13.5	S. 74 33 54.1	3 37.5	− 35 43 52.4	+ 26.8	Y.	
55	. .	. .	. .	− 4 31.0	N. 33 29 23.9	40.3	+ 72 23 43.4	− 3.8	Y.	
56	. .	. .	. .	+ 1 27.1	S. 12 21 33.0	13.4	+ 26 31 52.8	+ 7.6	Y.	
57	30.020	35.6	28.2	− 1 12.0	16 23 56.2	18.0	+ 22 29 25.0	+ 7.8	Y.	
58	. .	. .	. .	− 5 11.1	68 24 56.7	2 33.2	− 29 33 50.7	+ 19.3	Y.	
59	. .	. .	. .	− 2 5.2	68 28 2.6	2 33.6	− 29 36 57.0	+ 19.2	Y.	
60	. .	. .	. .	+ 1 9.7	10 46 16.0	11.6	+ 28 7 11.6	+ 2.7	Y.	
61	. .	. .	. .	− 24.9	67 14 38.8	2 24.7	− 28 23 24.3	+ 15.6	Y.	
62	. .	. .	. .	− 4 3.7	67 11 0.0	2 24.3	− 28 19 45.1	+ 15.3	Y.	
63	30.020	35.4	27.3	− 1 39.8	69 18 25.5	2 40.6	− 30 27 26.9	+ 14.5	Y.	
64	. .	. .	. .	+ 8.6	50 45 14.8	1 14.7	− 11 52 50.3	+ 9.5	Y.	
65	. .	. .	. .	− 1 11.2	S. 69 48 53.6	2 45.0	− 30 57 59.4	+ 11.4	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES. A.			B.	C.	D.	E.	F.	Mean.	MICROMETER. Observed.	Nadir cor.	Corr.
						°	'	"	"	"	"	"	"	"	r.	r.	r.
1868. Feb. 18	1	Anon. 7h. 2m. 6s.	8.5	3	III–VII.	155	0	5.4	9.1	6.2	4.0	4.7	3.9	5.55	29.152	. .	[illegible]
	2	B. A. C. 2393	5.5	3	III–VII.	155	40	5.5	7.1	5.2	4.2	3.2	1.9	4.52	28.999	. .	[illegible]
	3	η Canis Majoris	. .	2	I, IX.	157	55	5.7	8.4	6.2	3.9	4.2	2.3	5.12	30.866	. .	[illegible]
	4	O. Arg. S. 6748	7.5	3	IV–VI.	"	"	"	"	"	"	"	"	"	32.317	. .	[illegible]
	5	Anon. 7h. 33m. 51s.	9.2	2	V, IX.	123	20	6.9	11.4	9.6	8.1	5.9	6.8	8.12	23.452	. .	[illegible]
	6	Anon. 7h. 46m. 52s.	9.0	3	IV–VI.	155	0	5.1	9.8	6.6	5.3	3.9	3.1	5.63	34.878	. .	[illegible]
	7	Anon. 7h. 47m. 37s.	7.5	2	VI, VIII.	"	"	"	"	"	"	"	"	"	36.818	. .	[illegible]
	8	Anon. 7h. 49m. 33s.	. .	2	VI, VIII.	"	"	"	"	"	"	"	"	"	31.110	. .	[illegible]
	9	Anon. 7h. 49m. 47s.	7.0	1	IX.	"	"	"	"	"	"	"	"	"	36.255	. .	[illegible]
	10	Weisse VII, 1752	8.5	3	III–VII.	114	10	5.2	9.9	7.3	6.6	4.6	5.1	6.45	31.650	. .	[illegible]
	11	Weisse VII, 1763	7.5	1	IX.	"	"	"	"	"	"	"	"	"	30.595	. .	[illegible]
	12	O. Arg. S. 8338	8.3	2	V, VII.	153	50	3.1	5.2	4.2	0.9	0.4	59.0	2.13	*29.970	. .	[illegible]
	13	O. Arg. S. 8345	7.5	2	III, IX.	"	"	"	"	"	"	"	"	"	31.272	. .	[illegible]
	14	Anon. 8h. 19m. 4s.	9.5	2	VII, IX.	156	15	4.9	8.6	6.2	4.3	2.8	1.1	4.65	27.518	. .	[illegible]
	15	Anon. 8h. 30m. 46s.	7.2	2	IV, VI.	108	15	4.4	8.5	5.2	3.6	1.9	2.4	4.33	32.428	. .	[illegible]
	16	Anon. 8h. 32m. 21s.	. .	3	IV–VI.	"	"	"	"	"	"	"	"	"	27.262	. .	[illegible]
	17	Anon. 8h. 34m. 46s.	9.0	3	IV–VI.	"	"	"	"	"	"	"	"	"	30.676	. .	[illegible]
	18	O. Arg. S. 8993	8.0	3	III–VII.	156	10	4.4	7.1	4.8	3.8	2.1	0.1	3.72	32.208	. .	[illegible]
	19	Anon. 8h. 47m. 26s.	8.5	3	III–VII.	160	40	4.8	7.4	7.2	4.1	3.2	1.2	4.65	25.752	. .	[illegible]
	20	O. Arg. S. 9243	6.5	3	III–VII.	152	30	6.6	9.2	8.3	6.4	5.4	3.8	6.62	29.101	. .	[illegible]
	21	O. Arg. S. 9321	7.8	3	III–VII.	"	"	"	"	"	"	"	"	"	26.180	. .	[illegible]
	22	O. Arg. S. 9344	7.9	3	V–IX.	"	"	"	"	"	"	"	"	"	30.090	. .	[illegible]
	23	Anon. 9h. 12m. 25s.	7.0	3	III–VII.	164	0	9.7	11.6	11.3	9.2	7.4	6.2	9.23	33.286	. .	[illegible]
	24	Lacaille 3849	6.5	3	III–VII.	163	10	9.8	13.8	12.0	10.9	8.3	7.1	10.32	29.145	. .	[illegible]
	25	O. Arg. S. 9855	6.0	2	I, IX.	160	15	7.5	11.5	10.7	8.0	6.2	4.4	8.05	34.232	. .	[illegible]
	26	O. Arg. S. 9856	6.0	3	IV–VI.	"	"	"	"	"	"	"	"	"	25.225	. .	[illegible]
	27	Nadir	. .	5	. . .	270	0	5.1	9.3	6.1	6.8	5.0	3.3	5.93	29.536	. .	
19	28	θ¹ Tauri	. .	3	III–VII.	113	15	5.0	2.0	1.1	57.2	4.0	1.3	1.77	32.621	+ 0.496	[illegible]
	29	Weisse (2) IV, 618	. .	3	III–VII.	"	"	"	"	"	"	"	"	"	24.699	. .	[illegible]
	30	Anon. 4h. 32m. 40s.	. .	3	IV–VI.	156	25	4.7	0.0	59.9	57.0	2.0	0.0	0.60	32.652	. .	[illegible]
	31	Anon. 4h. 41m. 14s.	. .	1	III.	118	10	6.6	2.0	59.0	56.8	3.1	2.0	1.58	30.550	. .	[illegible]
	32	Anon. 4h. 41m. 16s.	. .	1	VIII.	"	"	"	"	"	"	"	"	"	28.096	. .	[illegible]
	33	O. Arg. N. 5439	7.5	3	IV–VI.	83	20	7.0	2.0	4.0	0.0	6.6	4.8	4.07	32.707	. .	[illegible]
	34	12 Aurigæ	8.0	3	IV–VI.	82	40	7.1	1.2	4.0	59.7	5.9	4.0	3.65	33.308	. .	[illegible]
	35	Weisse (2) V, 452	. .	3	III–VII.	98	20	7.0	1.2	2.0	58.1	6.0	4.0	3.05	30.119	. .	[illegible]
	36	Weisse (2) V, 530	. .	3	III–VII.	"	"	"	"	"	"	"	"	"	26.094	. .	[illegible]
	37	θ¹ Orionis, (2d *)	. .	2	I, IX.	134	20	7.0	2.0	2.1	3.9	5.0	4.0	4.00	26.285	. .	[illegible]
	38	θ² Orionis, (1st *)	. .	2	III, VI.	"	"	"	"	"	"	"	"	"	26.566	. .	[illegible]
	39	θ² Orionis, (3d *)	. .	2	V, VIII.	"	"	"	"	"	"	"	"	"	26.510	. .	[illegible]
	40	Lacaille 1967	. .	3	III–VII.	162	50	6.9	1.1	2.6	59.0	2.8	2.2	2.43	25.537	. .	[illegible]
	41	Lacaille 2015	. .	3	IV–VI.	161	45	7.0	2.0	3.8	59.8	3.0	3.0	3.10	35.373	. .	[illegible]
	42	B. A. C. 1879	. .	3	1–5	42	10	8.0	1.4	5.9	0.1	6.0	5.1	4.42	31.692	. .	[illegible]
	43	Weisse (2) V, 1980	. .	3	III–VII.	102	55	8.2	3.9	4.4	2.0	7.8	6.2	5.42	30.306	. .	[illegible]
	44	Lacaille 2178	. .	4	IV, VII, VIII, IX.	163	40	8.0	2.0	4.0	59.1	4.1	3.1	3.38	33.115	. .	[illegible]
	45	O. Arg. S. 5176	. .	4	I–IV.	154	40	8.0	1.7	2.9	57.0	3.9	2.9	2.73	29.642	. .	[illegible]
	46	O. Arg. S. 5198	. .	2	III, IX.	"	"	"	"	"	"	"	"	"	30.260	. .	[illegible]
	47	O. Arg. S. 5199	. .	2	V, VI.	"	"	"	"	"	"	"	"	"	29.601	. .	[illegible]
	48	O. Arg. S. 5410	. .	4	I, II, III. V.	156	30	8.0	1.8	3.0	59.3	4.3	2.0	3.07	24.102	. .	[illegible]
	49	O. Arg. S. 5434	. .	3	V–VII.	"	"	"	"	"	"	"	"	"	30.885	. .	[illegible]
	50	Lacaille 2480	7.0	3	III–VII.	162	35	7.1	1.1	3.8	59.0	3.0	2.1	2.68	29.687	. .	[illegible]
	51	Lacaille 2494	7.0	3	III–VII.	"	"	"	"	"	"	"	"	"	26.703	. .	[illegible]
	52	Nadir	. .	5	. .	270	0	7.0	0.8	1.4	59.4	4.0	3.1	2.62	29.468	. .	
22	53	Weisse V, 48	8.3	3	III–VII.	114	40	4.2	10.2	7.1	7.2	3.1	3.2	5.83	26.936	+ 0.510	[illegible]
	54	O. Arg. S. 3862	7.5	3	III–VII.	157	55	1.3	7.6	2.9	4.8	59.4	57.9	2.32	34.895	. .	35.411
	55	O. Arg. S. 4102	8.2	3	III–VII.	156	10	5.2	11.9	7.4	9.9	3.9	1.8	6.68	35.378	. .	[illegible]
	56	B. A. C 1809	. .	3	III–VII.	162	20	4.9	12.3	9.1	11.2	4.6	3.0	7.52	31.861	. .	[illegible]
	57	Anon. 5h. 50m. 34s.	8.3	2	II–VIII.	158	50	5.1	11.9	7.2	8.3	3.1	0.6	6.03	33.738	. .	[illegible]
	58	Anon. 5h. 50m. 35s.	8.8	3	IV–VI.	"	"	"	"	"	"	"	"	"	29.293	. .	[illegible]
	59	Anon. 5h. 58m. 52s.	8.5	3	III–VII.	108	45	5.9	11.9	8.1	8.4	4.8	4.1	7.20	29.591	. .	[illegible]
	60	*l* Orionis	. .	3	V–IX.	118	55	5.9	11.1	5.9	8.1	3.2	2.0	6.03	31.425	. .	[illegible]
	61	O. Arg. N. 7298	7.5	3	V–VII.	77	15	3.9	8.8	8.9	9.5	3.8	3.3	6.37	32.527	. .	[illegible]
	62	Lalande 15079	8.0	3	III–VII.	139	55	3.9	10.1	6.7	8.7	3.8	1.1	5.72	33.127	. .	[illegible]
	63	Anon. 7h. 49m. 9s.	8.5	2	IV, VI.	116	50	3.8	9.2	5.0	6.5	1.7	0.9	4.52	34.324	. .	[illegible]
	64	(*133) W. 7h. 49m. 39s.	8.0	2	VII, IX.	"	"	"	"	"	"	"	"	"	27.457	. .	[illegible]
	65	Weisse VII, 1763	8.5	3	IV–VI.	114	10	3.7	10.5	7.4	9.4	3.1	1.6	5.95	30.710	. .	[illegible]
	66	30 Lyncis	7.0	3	IV–VI.	70	45	3.9	10.4	9.4	11.2	4.5	4.8	7.37	29.831	. .	[illegible]

Number.	Barometer.	THERM'S.		Instrumental corrections.	Apparent Zenith Distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.							
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	+ 9.7	S. 65 0 15.2	2 10.5	− 26 8 46.5	+ 9.3	Y.	Whole rev. recorded 30.
2	30.020	35.0	26.8	+ 14.5	65 40 19.0	2 14.6	− 26 48 54.4	+ 7.9	Y.	
3	. .	. .	. .	− 43.5	67 54 21.6	2 29.7	− 29 3 12.1	+ 6.2	Y.	
4	. .	. .	. .	− 1 29.4	67 53 35.7	2 29.7	− 29 2 26.2	+ 6.3	Y.	
5	. .	. .	. .	+ 3 8.5	33 23 16.6	40.3	+ 5 29 42.3	− 2.3	Y.	
6	. .	. .	. .	− 2 49.7	64 57 15.9	2 10.3	− 26 5 47.0	+ 0.1	Y.	
7	. .	. .	. .	− 3 50.4	64 56 15.2	2 10.2	− 26 4 46.2	0.0	Y.	
8	. .	. .	. .	− 51.8	64 59 13.8	2 10.5	− 26 7 45.1	− 0.4	Y.	
9	30.006	34.7	26.5	− 3 33.5	64 56 32.1	2 10.2	− 26 5 3.1	− 0.5	Y.	
10	. .	. .	. .	− 1 8.3	24 8 58.1	27.4	+ 14 44 13.7	− 8.3	Y.	
11	. .	. .	. .	− 35.0	24 9 31.4	27.5	+ 14 43 40.3	− 8.3	Y.	
12	. .	. .	. .	− 15.9	63 49 46.2	2 4.0	− 24 58 11.0	− 5.0	Y.	Whole rev. recorded 30.
13	. .	. .	. .	− 57.1	63 49 5.0	2 4.0	− 24 57 29.8	− 5.1	Y.	
14	29.992	34.0	26.1	+ 1 0.6	66 16 5.2	2 18.5	− 27 24 44.5	− 6.2	Y.	
15	. .	. .	. .	− 1 32.8	18 13 31.5	20.2	+ 20 39 47.5	− 13.5	Y.	
16	. .	. .	. .	+ 1 9.1	18 16 13.4	20.2	+ 20 37 5.6	− 13.7	Y.	
17	. .	. .	. .	− 37.9	18 14 26.4	20.2	+ 20 38 52.6	− 14.1	Y.	
18	. .	. .	. .	− 1 26.1	66 8 37.6	2 17.6	− 27 17 16.0	− 10.7	Y.	
19	. .	. .	. .	+ 1 56.2	70 42 0.8	2 53.3	− 31 51 14.9	− 11.7	Y.	
20	. .	. .	. .	+ 11.3	62 30 17.9	1 57.1	− 23 38 35.8	− 13.3	Y.	
21	. .	. .	. .	+ 1 42.8	62 31 49.4	1 57.3	− 23 40 7.5	− 14.1	Y.	
22	29.972	33.8	25.8	− 19.8	62 29 46.8	1 57.1	− 23 38 4.7	− 14.3	Y.	
23	. .	. .	. .	− 1 59.9	73 58 9.3	3 30.2	− 35 8 0.3	− 16.5	Y.	No whole rev. recorded.
24	. .	. .	. .	+ 9.8	73 10 20.1	3 20.0	− 34 20 0.9	− 18.4	Y.	
25	. .	. .	. .	− 2 30.3	70 12 37.7	2 48.6	− 31 21 47.1	− 19.4	Y.	
26	29.960	33.5	25.8	+ 2 12.8	70 17 20.8	2 49.4	− 31 26 31.0	− 19.4	Y.	
27	. .	. .	. .	. .	. . . .	. .	. . . . .	. .	Y.	
28	29.918	44.0	46.0	− 1 37.6	23 13 24.1	25.2	+ 15 39 49.9	+ 25.8	D.	
29	. .	. .	. .	+ 2 30.7	23 17 32.4	25.3	+ 15 35 41.5	+ 24.7	D.	
30	. .	. .	. .	− 1 38.7	66 23 21.9	2 13.3	− 27 31 56.0	+ 37.4	D.	
31	. .	. .	. .	− 32.7	28 9 28.8	31.5	+ 10 43 38.9	+ 24.6	D.	
32	. .	. .	. .	+ 44.3	S. 28 10 45.8	31.5	+ 10 42 21.9	+ 24.6	D.	
33	. .	. .	. .	− 1 40.3	N. 6 41 36.3	6.9	+ 45 35 22.4	+ 10.8	D.	
34	. .	. .	. .	− 1 59.1	N. 7 21 55.5	7.6	+ 46 15 42.3	+ 8.9	D.	
35	. .	. .	. .	− 19.1	S. 8 19 43.9	8.7	+ 30 33 46.6	+ 12.4	D.	Following of double.
36	. .	. .	. .	+ 1 47.1	8 21 50.1	8.7	+ 30 31 40.4	+ 12.1	D.	
37	. .	. .	. .	+ 1 40.7	44 21 44.7	57.8	− 5 29 3.3	+ 22.2	D.	
38	. .	. .	. .	+ 1 32.0	44 21 36.0	57.8	− 5 28 54.6	+ 22.2	D.	
39	. .	. .	. .	+ 1 33.8	44 21 37.8	57.8	− 5 28 56.4	+ 22.2	D.	
40	29.944	44.2	40.8	+ 2 4.1	72 52 6.5	3 10.0	− 34 1 37.3	+ 27.5	D.	
41	. .	. .	. .	− 3 4.0	S. 71 41 59.1	2 57.6	− 32 51 17.5	+ 25.9	D,	
42	. .	. .	. .	− 1 8.5	N. 47 51 4.1	1 5.5	+ 86 45 48.8	− 7.0	D.	
43	. .	. .	. .	− 25.0	S. 12 54 40.4	13.6	+ 25 58 45.2	+ 7.4	D.	
44	. .	. .	39.1	− 1 53.7	73 38 9.6	3 20.0	− 34 47 50.4	+ 22.2	D.	Unsteady.
45	. .	. .	. .	− 4.7	64 39 58.0	2 5.4	− 25 48 24.2	+ 17.1	D.	
46	. .	. .	. .	− 24.2	64 39 38.5	2 5.3	− 25 48 4.6	+ 16.9	D,	
47	. .	. .	. .	− 3.1	64 39 59.6	2 5.4	− 25 48 25.8	+ 16.9	D.	
48	. .	. .	. .	+ 2 48.9	66 32 51.9	2 16.9	− 27 41 29.6	+ 15.6	D.	
49	29.954	43.5	37.3	− 43.4	66 29 19.6	2 16.5	− 27 37 56.9	+ 15.4	D.	
50	. .	. .	. .	− 6.0	72 34 56.6	3 8.0	− 33 44 25.4	+ 14.0	D.	
51	. .	. .	38.1	+ 1 27.6	72 36 30.2	3 8.2	− 33 45 59.2	+ 13.6	D.	
52	. .	. .	. .	. .	. . . .	. .	. . . . .	. .	D.	
53	30.327	30.2	23.4	+ 1 20.1	24 41 25.9	28.6	+ 14 11 44.7	+ 19.9	Y.	
54	. .	. .	. .	− 2 49.6	67 52 12.7	2 32.2	− 29 1 5.7	+ 31.1	Y.	
55	30.340	28.9	22.9	− 3 4.7	66 7 1.9	2 20.1	− 27 15 42.8	+ 27.8	Y.	
56	. .	. .	. .	− 1 14.5	72 18 53.0	3 13.6	− 33 28 27.4	+ 27.9	Y.	
57	. .	. .	. .	− 2 13.7	68 47 52.3	2 39.8	− 29 56 52.9	+ 24.6	Y.	
58	. .	. .	. .	+ 6.1	68 50 12.1	2 40.1	− 29 59 13.0	+ 24.6	Y.	No. whole rev. may be 28.
59	30.350	27.2	22.3	− 3.0	18 45 4.2	21.2	+ 20 8 13.8	+ 9.3	Y.	
60	. .	. .	. .	− 1 0.5	S. 28 54 5.5	34.5	+ 9 58 59.2	+ 10.7	Y.	
61	30.362	25.8	21.7	− 1 34.9	N. 12 46 28.6	14.2	+ 51 40 22.0	− 6.6	Y.	
62	30.378	24.6	20.8	− 1 54.1	S. 49 53 11.6	1 14.4	− 11 0 46.8	+ 0.3	Y.	
63	. .	. .	. .	− 2 31.5	26 47 33.0	31.7	+ 12 5 34.5	− 6.1	Y.	
64	. .	. .	. .	+ 1 3.9	26 51 8.4	31.8	+ 12 1 59.0	− 6.2	Y.	
65	. .	. .	. .	− 38.2	S. 24 9 27.7	28.1	+ 14 43 43.4	− 8.4	Y.	
66	. .	. .	. .	− 10.5	N. 19 15 3.2	21.9	+ 58 9 4.3	− 18.6	Y.	

Number.	Barometer.	THERM'S.		Instrumental corrections.		Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.								
	in.	°	°	' "		° ' "	' "	° ' "	"		
1	30.386	24.4	20.8	— 3.5	S.	14 55 0.4	16.7	+ 23 58 22.1	— 12.6	Y.	
2	. . .	. . .	. . .	— 5.7		18 40 0.8	21.2	+ 20 13 17.2	— 13.3	Y.	
3	. . .	. . .	. . .	+ 1 57.7		18 42 4.2	21.2	+ 20 11 13.8	— 13.6	Y.	
4	30.382	24.2	20.6	— 1 7.3		18 38 59.2	21.2	+ 20 14 18.8	— 13.9	Y.	
5	. . .	. . .	. . .	— 1 17.2		32 43 46.9	40.4	+ 6 9 11.9	— 14.9	Y.	
6	30.390	24.0	20.4	— 2 0.8		32 43 3.3	40.3	+ 6 9 55.6	— 14.9	Y.	
7	. . .	. . .	. . .	. . .		. . . . .	. . .	. . . . .	. . .	Y.	
8	29.710	36.8	28.7	+ 48.8		67 20 49.5	2 23.6	— 28 29 33.9	+ 32.0	D.	
9	. . .	. . .	. . .	— 53.3		17 4 11.5	18.5	+ 21 49 9.2	+ 14.9	D.	
10	. . .	. . .	. . .	— 24.6		67 29 39.9	2 24.8	— 28 38 25.5	+ 29.3	D.	
11	29.716	35.5	28.0	— 2 27.5		59 37 36.7	1 42.8	— 20 45 40.3	+ 25.1	D.	
12	. . .	. . .	. . .	— 2 39.9		12 57 27.2	13.9	+ 25 55 58.1	+ 8.8	D.	
13	. . .	. . .	. . .	+ 20.9		66 45 24.0	2 19.8	— 27 54 4.6	+ 23.8	D.	
14	. . .	. . .	28.1	+ 1 8.5		68 36 12.2	2 33.1	— 29 45 6.1	+ 23.2	D.	
15	. . .	. . .	. . .	— 2 34.5		67 17 28.1	2 23.5	— 28 26 12.4	+ 21.6	D.	
16	. . .	. . .	. . .	— 5.6		64 39 56.3	2 7.0	— 25 48 24.1	+ 18.0	D.	
17	. . .	. . .	. . .	— 2.9		64 39 59.0	2 7.0	— 25 48 26.8	+ 17.8	D.	
18	. . .	. . .	. . .	— 21.9		64 39 40.0	2 6.9	— 25 48 7.7	+ 17.8	D.	
19	. . .	. . .	. . .	+ 2 19.7	S.	28 52 22.5	33.3	+ 10 0 43.4	+ 6.8	D.	Hazy.
20	29.730	34.2	27.9	+ 59.0	N.	38 13 55.5	47.6	+ 77 8 22.3	— 13.2	D.	Cloudy.
21	. . .	. . .	. . .	. . .		. . . . .	. . .	. . . . .	. . .	D.	
22	29.935	31.8	28.0	— 2 0.6	S.	66 38 3.1	2 20.1	— 27 46 44.0	+ 27.2	Y.	
23	. . .	. . .	. . .	+ 34.0		72 40 39.7	3 13.4	— 33 50 13.9	+ 25.3	Y.	
24	29.940	31.8	26.6	— 1 10.3		43 3 56.3	57.0	— 4 11 14.1	+ 16.9	Y.	
25	. . .	. . .	. . .	— 3.3		65 44 59.6	2 14.7	— 26 53 35.1	+ 20.6	Y.	
26	29.943	31.7	27.4	— 1 10.3		67 33 53.2	2 26.7	— 28 42 40.7	+ 19.5	Y.	
27	. . .	. . .	. . .	+ 1 34.0		14 11 42.2	15.4	+ 24 41 40.4	+ 2.9	Y.	
28	. . .	. . .	. . .	+ 46.5		14 10 54.7	15.4	+ 24 42 29.1	+ 2.6	Y.	
29	. . .	. . .	. . .	+ 21.5		14 55 27.0	16.3	+ 23 57 55.9	+ 1.6	Y.	
30	29.942	31.5	25.8	— 1 34.9		67 38 31.1	2 27.7	— 28 47 19.6	+ 13.8	Y.	
31	. . .	. . .	. . .	+ 21.5		16 0 27.1	17.6	+ 22 52 54.5	— 1.1	Y.	
32	. . .	. . .	. . .	— 1 10.4		66 8 54.2	2 17.8	— 27 17 32.8	+ 10.4	Y.	
33	. . .	. . .	. . .	— 3 6.3		66 6 58.3	2 17.7	— 27 15 36.8	+ 10.2	Y.	
34	. . .	. . .	. . .	. . .		. . . . .	. . .	. . . . .	. . .	Y.	
35	29.950	30.8	23.0	— 2 33.7		25 7 32.7	28.9	+ 13 45 37.6	— 6.2	Y.	
36	. . .	. . .	. . .	— 1 13.2		10 43 51.7	11.7	+ 28 9 35.8	— 11.1	Y.	
37	. . .	. . .	. . .	+ 1 49.7		80 11 55.8	5 43.4	— 41 24 0.0	— 0.6	Y.	
38	29.962	30.4	24.6	+ 1 58.0		68 27 5.7	2 34.3	— 29 36 0.8	— 2.7	Y.	
39	. . .	. . .	. . .	+ 1 19.1		80 31 24.7	5 54.6	— 41 43 40.1	— 3.5	Y.	
40	. . .	. . .	. . .	+ 25.1		65 30 32.3	2 13.5	— 26 39 6.6	— 6.1	Y.	
41	. . .	. . .	. . .	— 57.1		65 39 10.1	2 15.1	— 26 47 46.0	— 7.3	Y.	
42	29.970	30.3	23.6	+ 37.2		76 20 45.0	4 8.7	— 37 31 14.5	— 8.2	Y.	
43	. . .	. . .	. . .	— 51.5		67 9 12.3	2 25.2	— 28 17 58.3	— 10.6	Y.	
44	. . .	. . .	. . .	— 16.5		16 18 49.8	18.0	+ 22 34 31.4	— 18.4	Y.	
45	. . .	. . .	. . .	— 44.9		66 24 22.6	2 20.2	— 27 33 3.6	— 13.3	Y.	
46	29.962	30.2	22.8	+ 49.7		66 25 57.2	2 20.4	— 27 34 38.4	— 13.3	Y.	
47	. . .	. . .	. . .	— 2 14.1		73 47 51.2	3 29.4	— 34 57 41.4	— 14.7	Y.	Degrees and minutes of circle reading not recorded.
48	. . .	. . .	. . .	+ 1 20.0		66 31 26.7	2 21.2	— 27 40 8.7	— 16.1	Y.	
49	. . .	. . .	. . .	— 1 57.0		66 28 9.7	2 20.9	— 27 36 51.4	— 16.2	Y.	
50	29.968	30.1	22.3	— 18.2		66 29 48.5	2 21.0	— 27 38 30.3	— 16.5	Y.	
51	30.022	22.0	14.8	— 23.8		61 49 46.0	1 56.8	— 22 58 3.6	+ 24.7	Y.	March 2. Found the graduated screw-heads of microscopes A and C rather loose. Tightened them. D.
52	. . .	. . .	. . .	+ 43.4		52 50 53.3	1 22.8	— 13 58 36.9	+ 21.0	Y.	
53	. . .	. . .	. . .	— 2 13.1		69 27 55.3	2 46.7	— 30 37 2.8	+ 23.4	Y.	
54	30.040	22.0	13.8	— 3 16.6		67 1 49.7	2 27.7	— 28 10 38.2	+ 21.6	Y.	
55	. . .	. . .	. . .	+ 1 28.1		62 11 35.7	1 59.0	— 23 19 55.5	+ 17.4	Y.	
56	30.050	21.8	13.7	— 4 39.5		62 5 28.1	1 58.5	— 23 13 47.4	+ 15.4	Y.	
57	. . .	. . .	. . .	— 4 28.6		66 55 38.8	2 27.1	— 28 4 26.7	+ 15.2	Y.	
58	. . .	. . .	. . .	+ 4 50.3		67 4 57.7	2 28.2	— 28 13 46.7	+ 15.2	Y.	
59	. . .	. . .	. . .	— 1 46.5		70 28 18.9	2 56.3	— 31 37 36.0	+ 14.4	Y.	
60	30.056	21.7	13.2	— 1 14.3		65 53 50.4	2 20.3	— 27 2 31.5	+ 12.5	Y.	
61	. . .	. . .	. . .	— 29.8		39 9 38.4	51.4	— 0 16 50.6	+ 4.6	Y.	
62	. . .	. . .	. . .	+ 46.3		69 30 53.7	2 47.7	— 30 40 2.2	+ 10.1	Y.	
63	. . .	. . .	. . .	+ 1 25.1		69 31 32.5	2 47.9	— 30 40 41.2	+ 10.1	Y.	
64	30.078	21.5	12.7	— 1 28.5		69 13 39.9	2 45.4	— 30 22 46.1	+ 7.6	Y.	
65	. . .	. . .	. . .	— 1 52.0	S.	62 48 10.7	2 2.6	— 23 56 34.1	+ 4.6	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.									MICROMETER.		
						A.			B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Corr'd
						°	′	″	″	″	″	″	″	″	r.	r.	r.
1868. Mar. 3	1	Lalande 15006	7.5	1	VII.	152	49	59.0	67.4	66.2	64.2	58.9	61.0	62.78	29.318	. .	[illegible]
	2	O. Arg. S. 8225	7.2	3	III-VII.	152	45	2.1	10.3	9.5	9.0	2.1	3.8	6.13	28.311	. .	[illegible]
	3	Lacaille 3262	5.8	3	III-VII.	163	0	3.0	13.8	10.4	11.5	4.4	6.0	8.18	27.547	. .	[illegible]
	4	Lacaille 3312	6.0	3	V-IX.	160	20	2.7	12.4	11.8	10.3	2.7	5.1	7.50	26.250	. .	[illegible]
	5	O. Arg. S. 8697	8.0	3	III-VII.	152	35	3.1	12.7	11.6	10.2	3.9	5.9	7.90	27.816	. .	[illegible]
	6	b Mali	5.3	3	III-VII.	163	40	4.9	14.3	12.8	12.0	6.1	7.9	9.67	28.175	. .	[illegible]
	7	O. Arg. S. 8993	8.5	3	III-VII.	156	10	2.1	12.3	8.2	9.8	2.8	4.0	6.53	32.544	. .	33.072
	8	Anon. 8h. 55m. 26s.	7.3	3	III-VII.	155	50	1.9	10.8	6.7	8.0	0.7	2.4	5.08	26.593	. .	27.121
	9	20 Hydræ	5.0	3	III-VII.	137	10	0.4	10.1	1.5	7.2	2.2	2.3	4.78	33.511	. .	[illegible]
	10	O. Arg. S. 9522	8.3	3	III-VII.	155	30	3.0	14.1	10.9	11.7	5.1	5.2	8.33	28.891	. .	[illegible]
	11	Schjellerup 3476	9.2	2	III-VII.	136	55	3.7	15.1	10.6	11.1	6.3	6.0	8.80	30.772	. .	31.297
	12	Nadir	. .	5	III, VII.	270	0	4.0	15.3	10.3	13.0	6.7	7.2	9.42	29.657	. .	
4	13	o Tauri	. .	3	III-VII.	107	5	4.0	7.0	6.0	3.9	6.9	5.7	5.58	31.223	+ 0.500	[illegible]
	14	Anon. 5h. 25m. 52s.	. .	3	V-VII.	157	30	7.1	9.0	8.9	7.1	8.8	8.0	8.15	30.432	. .	[illegible]
	15	Anon. 5h. 35m. 40s.	. .	3	III-VII.	154	25	7.0	9.0	8.9	4.9	7.7	7.0	7.42	26.822	. .	[illegible]
	16	Weisse V, 1176	8.0	3	III-VII.	143	30	5.0	6.1	6.9	4.1	6.9	6.0	5.83	33.440	. .	[illegible]
	17	Weisse V, 1368	9.0	3	V-IX.	142	50	5.0	6.9	7.0	3.8	6.3	6.3	5.88	27.856	. .	[illegible]
	18	Anon. 6h. 9m. 51s.	. .	3	III-VII.	157	0	5.0	7.0	6.4	4.2	6.0	4.9	5.58	26.165	. .	26.671
	19	Nadir	. .	5	. . .	270	0	4.8	5.9	5.3	4.1	6.0	7.5	5.60	29.559	. .	
	20	Lacaille 2372	. .	3	III-VII.	157	15	5.6	6.1	7.1	3.1	6.6	5.5	5.67	30.424	. .	[illegible]
	21	O. Arg. S. 5772	9.0	2	VI-VIII.	156	0	4.8	5.2	5.0	3.0	4.9	4.0	4.48	27.534	. .	[illegible]
	22	Anon. 6h. 51m. 28s.	. .	3	III-VII.	153	40	5.1	6.0	6.1	3.0	5.0	5.0	5.03	30.095	. .	[illegible]
	23	O. Arg. S. 6232	. .	3	VI-IV.	155	20	5.2	6.2	7.1	4.0	6.1	5.4	5.67	31.678	. .	[illegible]
	24	O. Arg. N. 7623	7.0	3	IV-VI.	50	25	5.0	4.8	8.0	5.7	6.2	9.0	6.45	30.165	. .	[illegible]
	25	O. Arg. S. 6600	6.5	3	III, VI, VII.	155	10	5.1	7.1	6.9	3.0	7.0	6.0	5.85	24.803	. .	[illegible]
	26	O. Arg. S. 6810	. .	3	IV-VI.	155	25	2.4	6.0	6.3	3.1	5.9	5.5	4.87	32.491	. .	[illegible]
	27	Lacaille 2813	. .	3	III-VII.	"	"	"	"	"	"	"	"	"	27.626	. .	[illegible]
	28	Lacaille 2923	. .	3	IV-VI.	154	55	2.8	4.8	4.1	1.0	3.7	4.7	3.52	31.200	. .	[illegible]
	29	O. Arg. N. 8459	. .	3	IV-VI.	81	51	3.1	4.0	5.9	3.9	5.0	7.1	4.83	28.958	. .	29.455
	30	O. Arg. S. 7865	. .	3	IV-VI.	154	35	3.1	5.1	5.2	0.0	4.0	4.9	3.72	32.001	. .	[illegible]
	31	Anon. 7h. 58m. 13s.	. .	3	III-VII.	"	"	"	"	"	"	"	"	"	37.210	. .	[illegible]
	32	B. A. C. 2787	. .	3	2, V, 5.	43	25	3.9	4.2	7.0	4.1	4.0	6.0	4.87	31.610	. .	[illegible]
	33	Anon. 8h. 20m. 0s.	9.0	1	V.	88	30	4.0	5.8	6.0	3.1	6.8	9.0	5.78	30.177	. .	[illegible]
	34	Anon. 8h. 32m. 7s.	. .	3	III-VII.	108	20	4.0	6.7	5.8	3.0	6.0	6.1	5.27	28.641	. .	[illegible]
13	35	β Aurigæ	. .	3	IV-VI.	84	0	4.0	2.0	6.7	1.0	5.1	9.9	4.78	33.618	. .	34.147
	36	B. A. C. 1879	. .	3	2-4.	42	10	4.0	2.0	6.1	1.8	4.2	8.9	4.50	31.809	. .	32.349
	37	Lacaille 2180	. .	3	III-VII.	154	55	3.4	0.7	3.0	56.9	1.2	5.1	1.72	33.008	. .	33.545
	38	Nadir	. .	5	. . .	270	0	3.6	0.0	3.0	58.2	2.6	7.0	2.40	29.424	. .	. .
	39	O. Arg. S. 5450	. .	3	III-V.	152	25	3.8	0.0	4.1	57.9	2.4	4.9	2.18	26.042	. .	26.577
	40	O. Arg. S. 5463	. .	3	V-IX.	"	"	"	"	"	"	"	"	"	25.179	. .	[illegible]
	41	O. Arg. N. 7298	7.5	2	IV, V.	77	15	3.8	59.2	5.8	59.9	4.8	8.9	3.73	32.466	. .	[illegible]
	42	O. Org. N. 7308	8.5	3	VI-VIII.	"	"	"	"	"	"	"	"	"	29.921	. .	30.433
	43	Lacaille 2579	. .	3	III-VII.	159	20	4.0	0.3	5.0	58.9	1.5	4.0	2.28	28.978	. .	[illegible]
	44	O. Arg. N. 7753	9.0	2	V, VII.	68	40	3.3	1.0	6.0	1.1	4.0	9.0	4.07	29.050	. .	[illegible]
	45	B. A. C. 2455	. .	3	IV-VI.	107	5	3.3	1.8	4.0	58.7	4.0	6.1	2.98	28.248	. .	28.770
	46	Anon. 7h. 30m. 20s.	9.0	2	VII, IX.	158	35	2.0	0.0	2.8	58.1	0.2	3.0	1.02	31.035	. .	[illegible]
	47	Lalande 15073	. .	3	III-VII.	107	25	4.0	2.0	4.0	58.2	4.1	7.1	3.23	24.506	. .	25.034
	48	Weisse (2) VII, 1305	. .	3	V-VII.	107	25	4.0	2.1	4.6	58.8	4.7	8.0	3.70	26.328	. .	[illegible]
	49	O. Arg. S. 7769	. .	3	III-VII.	156	25	4.1	2.0	3.9	59.0	2.9	5.2	2.85	29.961	. .	[illegible]
	50	Weisse VII, 1752	. .	2	V, VII.	114	5	3.8	2.0	3.9	59.8	3.1	7.6	3.37	21.979	. .	[illegible]
	51	57 Camelopardi	. .	3	IV-VI.	66	0	3.0	59.0	5.9	59.3	3.9	7.9	3.17	30.801	. .	31.327
	52	31 Lyncis	. .	3	V-VII.	85	15	2.0	58.9	5.1	1.0	4.7	8.1	3.30	25.295	. .	25.821
	53	Weisse (2) VIII, 440	. .	2	V, VIII.	109	9	60.7	59.0	59.9	56.2	59.9	64.0	59.95	30.057	. .	30.584
	54	Anon. 8h. 25m. 55s.	8.5	2	III, V.	148	40	2.2	0.4	1.7	57.9	0.9	2.4	0.92	29.898	. .	30.433
	55	Weisse VIII, 936	9.0	3	IV-VI.	114	45	2.2	2.0	3.0	58.0	3.0	6.2	2.40	24.668	. .	[illegible]
16	56	ς Puppis	. .	3	IV-VI.	160	29	62.1	56.1	58.0	50.6	58.9	66.0	58.62	26.144	. .	[illegible]
	57	O. Arg. S. 7100	. .	3	IV-VI.	157	55	10.0	4.8	4.0	58.8	7.2	12.8	6.27	28.152	. .	[illegible]
	58	Weisse VII, 1232	. .	3	IV-VI.	140	45	8.0	2.0	2.0	56.2	6.0	12.0	4.37	28.609	. .	[illegible]
	59	Weisse VII, 1259	. .	3	III-VII.	"	"	"	"	"	"	"	"	"	27.016	. .	[illegible]
	60	Anon. 7h. 49m. 11s.	. .	3	III-V.	116	50	8.0	3.1	1.7	56.0	6.6	13.8	4.87	34.237	. .	[illegible]
	61	(*133) W. 7h. 49m. 40s.	. .	3	V-VII.	"	"	"	"	"	"	"	"	"	27.442	. .	[illegible]
	62	Anon. 7h. 59m. 7s.	. .	3	V-VII.	91	5	7.1	2.0	3.0	56.9	8.1	14.0	5.18	32.430	. .	[illegible]
	63	Weisse (2) VIII, 221	. .	3	III-VII.	108	30	7.0	2.0	2.0	56.0	6.2	13.8	4.50	28.880	. .	29.424
	64	O. Arg. S. 8581	. .	3	III-VII.	156	0	7.0	0.0	0.0	54.0	2.1	9.3	2.07	30.173	. .	[illegible]
	65	Anon. 8h. 28m. 56s.	. .	3	III-VII.	155	30	7.1	0.0	1.1	54.5	4.0	9.9	2.77	28.066	. .	[illegible]
	66	44 Cancri	. .	3	IV-VI.	110	15	7.0	1.0	2.0	54.0	6.2	12.0	3.70	27.321	. .	[illegible]

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	+ 4.8	S. 62 50 7.5	2 2.8	− 23 58 31.1	+ 4.4	Y.	
2	30.090	20.7	11.3	+ 36.4	62 45 42.5	2 2.7	− 23 54 6.0	− 1.8	Y.	
3	. .	. .	. .	+ 1 0.3	73 1 8.4	3 25.4	− 34 10 54.6	− 1.9	Y.	
4	. .	. .	. .	+ 1 40.7	70 21 48.2	2 56.3	− 31 31 5.3	− 3.3	Y.	
5	30.078	20.3	11.0	+ 51.9	62 35 59.8	2 1.9	− 23 44 22.5	− 5.6	Y.	
6	. .	. .	. .	+ 40.6	73 40 50.2	3 34.1	− 34 50 45.1	− 5.9	Y.	
7	. .	. .	. .	− 1 36.3	66 8 30.2	2 22.7	− 27 17 13.7	− 7.8	Y.	
8	30.094	20.1	10.7	+ 1 30.2	65 51 35.2	2 21.0	− 27 0 17.0	− 10.4	Y.	
9	. .	. .	. .	− 2 6.5	47 7 58.2	1 8.4	− 8 15 27.4	− 13.6	Y.	
0	. .	. .	. .	+ 18.2	65 30 26.5	2 18.8	− 26 39 6.1	− 13.0	Y.	
1	30.094	19.9	10.3	− 40.7	46 54 28.1	1 7.9	− 8 1 56.8	− 16.2	Y.	
2	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	Images very faint and indistinct.
3	30.310	30.0	29.7	− 53.9	17 4 11.6	18.9	+ 21 49 8.7	+ 15.0	D.	
4	. .	. .	. .	− 29.3	67 29 38.8	2 27.4	− 28 38 27.0	+ 29.6	D.	
5	. .	. .	. .	+ 1 23.8	64 26 31.2	2 8.0	− 25 35 0.0	+ 27.2	D.	
16	. .	. .	29.1	− 2 3.6	53 28 2.2	1 22.9	− 14 35 45.9	+ 22.5	D.	
17	. .	. .	. .	+ 51.4	52 50 57.2	1 21.1	− 13 58 39.1	+ 21.0	D.	
18	30.320	30.0	28.5	+ 1 44.3	67 1 49.8	2 24.5	− 28 10 35.1	+ 21.6	D.	
19	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
20	. .	. .	28.1	− 29.2	67 14 36.4	2 26.1	− 28 23 23.3	+ 17.4	D.	
21	. .	. .	. .	+ 1 1.4	66 1 5.8	2 17.9	− 27 9 44.5	+ 14.8	D.	
22	. .	. .	. .	− 18.8	63 39 46.2	2 4.0	− 24 48 11.0	+ 13.1	D.	
23	. .	. .	. .	− 1 8.3	S. 65 18 57.3	2 13.5	− 26 27 31.6	+ 11.4	D.	
24	. .	. .	. .	− 20.4	N. 39 35 14.0	51.0	+ 78 29 44.2	− 17.4	D.	
25	. .	. .	. .	+ 2 27.0	S. 65 12 32.8	2 12.9	− 26 21 6.5	+ 9.1	D.	
26	. .	. .	. .	− 1 33.8	65 23 31.0	2 14.0	− 26 32 5.8	+ 7.7	D.	
27	30.344	30.0	28.0	+ 58.6	65 26 3.4	2 14.3	− 26 34 38.5	+ 7.4	D.	
28	. .	. .	. .	− 53.3	S. 64 54 10.2	2 11.3	− 26 2 42.3	+ 4.4	D.	Whole rev. noted with special care.
29	. .	. .	. .	+ 17.1	N. 8 4 38.1	8.8	+ 46 58 26.1	− 15.6	D.	
30	. .	. .	. .	− 1 18.4	S. 64 33 45.3	2 9.5	− 25 42 15.6	+ 0.6	D.	
31	30.360	29.7	26.6	− 4 1.8	S. 64 31 1.9	2 9.3	− 25 39 32.0	+ 0.3	D.	
32	. .	. .	. .	− 1 6.1	N. 46 36 1.3	1 5.5	+ 85 30 46.0	− 26.7	D.	
33	. .	. .	. .	− 21.2	N. 1 30 15.5	1.6	+ 40 23 56.3	− 17.6	D.	
34	. .	. .	. .	+ 27.0	S. 18 20 32.2	20.6	+ 20 32 46.4	− 14.4	D,	
35	. .	. .	. .	− 2 10.0	N. 6 2 5.3	6.1	+ 44 55 50.6	+ 2.1	D.	
36	29.748	50.7	49.0	− 1 13.3	N. 47 51 8.8	1 3.9	+ 86 45 51.9	− 9.4	D.	
37	. .	. .	48.7	− 1 51.1	S. 64 53 10.6	2 3.0	− 26 1 34.4	+ 22.1	D.	
38	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
39	. .	. .	. .	+ 1 47.3	62 26 49.4	1 50.7	− 23 35 0.9	+ 16.6	D.	
40	. .	. .	. .	+ 2 14.2	S. 62 27 16.3	1 50.7	− 23 35 27.8	+ 16.6	D.	
41	. .	. .	. .	− 1 33.9	N. 12 46 30.2	13.2	+ 51 40 22.6	− 8.6	D.	
42	. .	. .	. .	− 13.6	N. 12 45 9.9	13.1	+ 51 39 2.2	− 8.7	D.	
43	29.744	50.8	47.3	+ 15.2	S. 69 20 17.4	2 32.8	− 30 29 11.0	+ 14.0	D.	
44	. .	. .	. .	+ 13.5	N. 21 19 42.5	22.7	+ 60 13 44.4	− 15.1	D.	
45	. .	. .	. .	+ 38.3	S. 17 5 41.2	17.9	+ 21 47 40.1	− 4.5	D.	
46	. .	. .	45.8	− 49.7	68 34 11.3	2 27.4	− 29 42 59.5	+ 7.4	D.	
47	. .	. .	. .	+ 2 35.6	17 27 38.8	18.3	+ 21 25 42.1	− 7.4	D.	
48	. .	. .	. .	+ 1 38.5	17 26 42.2	18.3	+ 21 26 38.7	− 8.7	D.	Circle reading recorded 107° 35′.
49	. .	. .	. .	− 15.6	66 24 47.2	2 13.0	− 27 33 21.0	+ 2.6	D.	
50	. .	. .	. .	+ 3 54.8	S. 24 8 58.1	26.2	+ 14 44 14.9	− 8.8	D.	
51	. .	. .	. .	− 41.6	N. 24 0 38.5	26.1	+ 62 54 43.8	− 23.4	D.	
52	. .	. .	. .	+ 2 11.0	N. 4 42 45.7	4.8	+ 43 36 29.7	− 19.0	D.	
53	. .	. .	. .	− 18.3	S. 19 9 41.6	20.3	+ 19 43 37.3	− 13.0	D.	
54	. .	. .	. .	− 13.6	58 39 47.3	1 35.9	− 19 47 44.0	− 4.7	D.	
55	29.762	49.7	42.8	+ 2 30.5	24 47 32.9	27.1	+ 14 5 39.2	− 13.9	D.	Foggy.
56	29.892	63.0	66.0	+ 1 43.6	70 31 42.2	2 37.5	− 31 40 40.5	+ 10.4	D.	Wires of microscope E bent by moisture.
57	. .	. .	. .	+ 40.7	67 55 46.9	2 17.7	− 29 4 25.4	+ 7.5	D.	
58	. .	. .	. .	+ 26.4	50 45 30.7	1 8.8	− 11 53 0.3	+ 1.8	D.	
59	. .	. .	66.0	+ 1 16.3	50 46 20.6	1 8.8	− 11 53 50.2	+ 1.6	D.	
60	. .	. .	. .	− 2 29.9	26 47 34.9	28.4	+ 12 5 35.9	− 6.3	D.	
61	. .	. .	. .	+ 1 3.0	26 51 7.8	28.5	+ 12 2 2.9	− 6.3	D.	
62	. .	. .	. .	− 1 33.2	1 3 31.9	1.0	+ 37 50 6.3	− 15.7	D.	
63	29.898	63.7	65.8	+ 18.0	18 30 22.5	18.8	+ 20 22 57.9	− 12.1	D.	
64	. .	. .	. .	− 22.8	65 59 39.2	2 5.6	− 27 8 5.6	− 2.4	D.	
65	. .	. .	. .	+ 43.3	65 30 46.0	2 2.9	− 26 39 9.7	− 3.6	D.	
66	. .	. .	. .	+ 1 6.8	S. 20 16 10.5	20.8	+ 18 37 7.9	− 15.0	D.	

DATE.	Number.		OBJECT.	Magnitude.	No. of mic. readings.	Tr'nsit wires.	MICROSCOPES.									MICROMETER.		
							A.			B.	C.	D.	E.	E.	Mean.	Observed.	Nadir cor.	Corr'd.
							°	'	"	"	"	"	"	"	"	r.	r.	
1868. Mar. 16	1	δ	Cancri	. .	3	III–VII.	110	15	7.0	1.0	2.0	54.0	6.2	12.0	3.70	29.150	. .	[illegible]
	2		Weisse (2) VIII, 1095	. .	2	IV–VI.	101	20	8.0	1.2	2.0	57.0	8.0	13.9	5.02	23.814	. .	[illegible]
	3		B. A. C. 3076	. .	3	III–V.	122	40	8.0	1.1	1.2	56.1	5.1	13.0	4.08	22.157	. .	[illegible]
	4		B. A. C. 3078	. .	3	V–VII.	"	"	"	"	"	"	"	"	"	23.558	. .	[illegible]
	5	78	Cancri	. .	3	III–VII.	110	55	8.3	1.9	1.8	57.0	7.1	13.0	4.85	32.856	. .	[illegible]
	6	π²	Cancri	. .	3	III–VII.	113	25	8.8	2.9	3.2	57.0	7.1	14.3	5.55	31.204	. .	[illegible]
	7		Nadir	. .	5	. .	270	0	7.9	59.0	1.6	55.4	6.0	13.2	3.85	29.455	. .	.
19	8		Weisse IX, 153	9.0	3	V–IX.	123	15	7.1	12.1	10.0	11.2	4.9	12.7	9.67	34.178	. .	[illegible]
	9	λ	Leonis	5.0	3	III–VII.	105	20	4.5	9.8	9.7	9.6	4.2	11.1	8.15	28.608	. .	[illegible]
	10		Anon. 9h. 30m. 44s.	8.5	3	III–VII.	164	15	1.8	5.5	5.1	4.9	58.4	4.2	3.32	25.400	. .	[illegible]
	11		Lacaille 4021	6.0	3	IV–VI.	161	30	3.1	6.4	8.0	8.0	59.1	7.5	5.35	31.841	. .	[illegible]
	12		Anon. 10h. 1m. 20s.	7.5	1	V.	153	10	2.9	5.5	6.7	6 5	59.2	6.7	4.58	30.703	. .	[illegible]
	13		Anon. 10h. 1m. 56s.	8.2	2	VI, IX.	"	"	"	"	"	"	"	"	"	27.465	. .	[illegible]
	14		Anon. 10h. 10m. 0s.	8.3	3	III–VII.	167	30	2.3	5.8	6.6	5.8	58.6	4.1	3.87	34.057	. .	[illegible]
	15		B. A. C. 3553	6.0	2	VII, IX.	131	50	5.7	10.8	9.2	9.1	2.4	10.4	7.93	26.728	. .	[illegible]
	16		Anon. 10h. 26m. 3s.	8.5	3	V–IX.	162	35	5.8	10.9	10.8	11.1	2.9	9.6	8.52	32.229	. .	[illegible]
	17	φ³	Hydræ	5.0	3	III–VII.	145	5	0.7	4.2	2.5	2.9	58.6	4.5	2.23	31.447	. .	[illegible]
	18	36	Sextantis	5.8	3	III–VII.	125	40	4.7	10.0	8.0	8.2	1.8	9.8	7.08	25.393	. .	[illegible]
	19		Weisse (2) 963	7.0	3	IV–VI.	105	0	3.7	9.8	9.3	9.3	2.7	11.2	7.67	26.964	. .	[illegible]
	20		Nadir	. .	5	. .	270	0	2.2	7.9	6.0	7.8	0.5	8.2	5.43	29.525	. .	. .
23	21		O. Arg. S. 6600	. .	3	III–V.	345	10	1.9	3.0	5.0	2.0	3.1	3.9	3.15	24.690	+ 0.076	[illegible]
	22		O. Arg. S. 7063	9.0	3	III–VII.	348	0	2.5	4.1	7.0	5.0	4.1	5.2	4.65	31.966	. .	[illegible]
	23		Lacaille 2916	. .	3	III–VII.	350	10	3.0	3.1	7.0	5.1	4.0	4.0	4.37	24.766	. .	[illegible]
	24		Lacaille 2941	. .	2	V, IX.	"	"	"	"	"	"	"	"	"	23.616	. .	[illegible]
	25		Nadir	. .	5	. .	100	0	1.0	3.9	3.1	4.0	5.0	7.8	4.13	29.936	. .	. .
24	26		Weisse (2) IX, 198	8.5	2	IV, VI.	300	35	1.3	8.4	6.5	5.1	5.0	7.4	5.62	27.210	+ 0.098	[illegible]
	27	83	Cancri	6.0	3	V–X.	"	"	"	"	"	"	"	"	"	24.962	. .	[illegible]
	28		Weisse (2) IX, 471	7.0	3	III–VII.	274	35	5.2	13.1	13.1	14.8	11.8	15.8	12.30	31.283	. .	[illegible]
	29		Anon. 9h. 32m. 27s.	9.0	3	III–VII.	339	15	1.4	9.8	10.6	9.1	6.0	7.3	7.37	35.049	. .	[illegible]
	30		Lacaille 4007	. .	3	III, V, IX.	351	45	2.6	12.6	12.1	10.9	7.2	8.1	8.92	30.079	. .	[illegible]
	31		Weisse (2) IX, 998	7.3	3	V–IX.	308	0	2.1	9.4	8.0	6.2	6.5	8.7	6.82	28.957	. .	[illegible]
	32		Lalande 19854	8.5	3	III–VII.	286	45	0.5	7.2	6.3	8.1	5.8	8.0	5.98	32.441	. .	[illegible]
	33	22	Leonis Minoris	7.2	3	IV–VI.	"	"	"	"	"	"	"	"	"	27.484	. .	[illegible]
	34		Weisse X, 255	8.5	3	III–VII.	321	55	0.8	8.8	8.5	7.9	5.7	6.9	6.43	25.142	. .	[illegible]
	35	30	Sextantis	6.0	3	III–VII.	318	50	1.2	7.8	7.4	6.2	4.4	7.1	5.68	28.569	. .	[illegible]
	36	50	Leonis	5.8	3	III–VII.	302	5	2.2	8.3	8.6	8.9	6.6	8.8	7.23	30.909	. .	[illegible]
	37	36	Sextantis	6.5	3	III–VII.	315	40	2.1	8.4	8.9	7.4	5.8	8.4	6.83	25.778	. .	[illegible]
	38		Dorpat 1482	8.2	2	IV, VI.	310	45	4.8	12.3	10.9	9.8	9.0	9.9	9.45	33.036	. .	[illegible]
	39		Anon. 10h. 45m. 40s.	9.3	1	IX.	"	"	"	"	"	"	"	"	"	36.511	. .	[illegible]
	40		B. A. C. 3779	. .	3	III–VII.	318	55	2.8	10.9	9.2	8.0	6.9	8.6	7.73	29.421	. .	[illegible]
	41		O. Arg. N. 11496	8.5	1	V.	259	14	59.1	66.0	67.1	71.8	65.5	69.7	66.53	25.358	. .	[illegible]
	42		O. Arg. N. 11518	7.8	1	V.	"	"	"	"	"	"	"	"	"	25.959	. .	[illegible]
	43		B. A. C. 3901	6.0	3	III–VII.	319	50	0.5	9.8	8.8	6.8	5.1	7.2	6.37	27.295	. .	[illegible]
	44		B. A. C. 3955	5.5	3	V–IX.	320	35	2.7	10.3	10.8	8.1	6.3	8.1	7.72	29.449	. .	[illegible]
	45		Nadir	. .	5	. .	100	0	0.5	11.3	7.1	11.8	6.6	9.7	7.83	30.032	. .	. .
April 3	46		Lacaille 3168	7.3	3	III–VII.	356	10	2.6	12.1	5.9	23.0	55.4	15.4	9.07	33.967	+ 0.060	[illegible]
	47		Lacaille 3258	7.0	3	III–VII.	355	50	4.6	13.9	7.0	24.5	57.0	16.4	10.57	33.747	. .	[illegible]
	48		Lacaille 3272	7.0	3	III–VII.	"	"	"	"	"	"	"	"	"	29.281	. .	[illegible]
	49		Anon. 8h. 23m. 55s.	6.5	3	III–VII.	345	45	2.0	7.5	2.1	17.5	52.1	12.7	5.65	29.165	. .	[illegible]
	50		Anon. 8h. 29m. 55s.	8.0	3	IV–VI.	349	45	0.0	5.9	1.3	18.6	49.7	10.4	4.32	37.071	. .	[illegible]
	51		Lacaille 3419	7.3	3	V–IX.	"	"	"	"	"	"	"	"	"	31.257	. .	[illegible]
	52		Anon. 8h. 38m. 17s.	8.5	2	II, VIII.	351	35	4.4	13.9	7.1	24.1	56.8	16.1	10.40	35.861	. .	[illegible]
	53	a	Mali	5.0	3	IV–VI.	"	"	"	"	"	"	"	"	"	32.331	. .	[illegible]
	54		Anon. 8h. 46m. 24s.	9.5	2	VII, IX.	348	45	4.0	12.2	6.3	23.1	55.4	15.9	9.48	33.340	. .	[illegible]
	55		Anon. 8h. 26m. 25s.	8.3	3	IV–VI.	346	10	6.3	11.3	7.1	23.5	57.2	17.1	10.42	31.196	. .	[illegible]
	56		Anon. 9h. 1m. 48s.	8.3	3	V–IX.	350	15	4.9	12.4	7.9	25.1	55.8	16.7	10.47	31.330	. .	[illegible]
	57		Lacaille 3751	7.5	3	III–VII.	347	10	5.8	11.5	7.6	24.2	55.5	17.5	10.35	26.380	. .	[illegible]
	58	h	Mali	5.0	3	IV–VI.	344	15	5.1	12.2	6.4	23.4	56.4	17.0	10.08	27.732	. .	[illegible]
	59		Lacaille 3874	7.0	3	III–VII.	351	40	3.5	11.4	6.1	23.9	55.5	16.1	9.42	29.002	. .	[illegible]
	60		O. Arg. S. 9888	9.5	2	III, VII.	339	15	1.5	9.1	3.8	20.9	53.0	14.0	7.05	25.623	. .	[illegible]
	61		Anon. 9h. 36m. 57s.	8.0	3	III–VII.	353	50	1.8	9.2	4.0	21.3	53.2	13.8	7.22	31.458	. .	[illegible]
	62	23	Leonis	6.0	3	III–VII.	305	10	3.9	10.8	3.4	22.2	55.4	17.0	8.78	25.448	. .	[illegible]
	63		B. A. C. 3405	5.5	3	III–VII.	351	40	3.8	13.4	7.0	24.9	56.3	16.4	10.30	32.779	. .	[illegible]
	64		Anon. 9h. 57m. 9s.	9.0	1	V.	348	30	4.3	13.8	8.1	24.8	55.5	16.6	10.52	31.027	. .	[illegible]
	65		Anon. 9h. 57m. 37s.	8.5	2	VI, IX.	"	"	"	"	"	"	"	"	"	33.576	. .	[illegible]

Number.	Barometer.	THERM'S.		Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.							
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	+ 9.6	S. 20 15 13.3	20.8	+ 18 38 5.1	− 15.2	D.	
2	. .	. .	. .	+ 2 56.8	11 23 1.8	11.3	+ 27 30 26.1	− 18.6	D.	
3	. .	. .	. .	+ 3 48.7	32 43 52.7	36.2	+ 6 9 10.3	− 14.4	D.	
4	. .	. .	. .	+ 3 4.8	32 43 8.8	36.2	+ 6 9 54.2	− 14.5	D.	
5	. .	. .	. .	− 1 46.6	20 53 18.2	21.5	+ 17 59 59.5	− 18.2	D.	
6	29.894	64.0	65.0	− 54.8	23 24 10.7	24.4	+ 15 29 4.1	− 18.4	D.	Stars seen through haze and cloud. Very steady. Bar. and ther. read at 9h. 15m.
7	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
8	30.140	46.3	41.2	− 2 27.5	33 12 42.1	39.0	+ 5 40 18.1	− 16.3	Y.	Degrees and minutes of circle reading not recorded.
9	. .	. .	. .	+ 27.2	15 20 35.3	16.4	+ 23 32 47.5	− 22.4	Y.	
10	. .	. .	. .	+ 2 7.4	74 17 10.7	3 29.2	− 35 27 0.7	− 12.9	Y.	
11	30.138	45.6	40.0	− 1 14.3	71 28 51.0	2 56.6	− 32 38 8.4	− 14.9	Y.	
12	. .	. .	. .	− 38.6	63 9 25.9	1 57.6	− 24 17 44.3	− 18.6	Y.	
13	. .	. .	. .	+ 1 2.5	63 11 7.0	1 57.7	− 24 19 25.5	− 18.7	Y.	
14	30.132	45.2	39.7	− 2 24.0	77 27 39.8	4 22.9	− 38 38 23.5	− 19.1	Y.	
15	. .	. .	. .	+ 1 25.9	41 51 33.8	53.5	− 2 58 48.1	− 22.9	Y.	
16	. .	. .	. .	− 1 26.9	72 33 41.6	3 8.2	− 33 43 10.6	− 21.5	Y.	
17	. .	. .	. .	− 1 2.0	55 4 0.2	1 25.4	− 16 11 46.4	− 23.2	Y.	
18	30.124	44.8	39.4	+ 2 7.9	35 42 14.9	43.0	+ 3 10 41.3	− 25.8	Y.	
19	. .	. .	. .	+ 1 20.5	15 1 28.1	16.1	+ 23 51 55.0	− 29.3	Y.	
20	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	March 20. Telescope moved so as to make the nadir reading 100° nearly.
21	29.740	56.5	56.9	+ 2 44.0	65 12 47.1	2 2.7	− 26 21 10.6	+ 10.4	D.	
22	. .	. .	. .	− 1 4.2	67 59 0.4	2 19.8	− 29 7 41.0	+ 8.1	D.	
23	. .	. .	. .	+ 2 41.5	70 12 45.8	2 37.0	− 31 21 43.6	+ 7.4	D.	
24	29.736	56.2	56.7	+ 3 17.2	70 13 21.5	2 37.1	− 31 22 19.4	+ 6.8	D.	Faint, uncertain. Bar. and ther. read at 8h. 0m.
25	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
26	. .	. .	. .	+ 1 24.4	20 36 30.0	22.0	+ 18 16 47.2	− 20.1	Y.	
27	30.066	52.7	48.7	+ 2 35.0	S. 20 37 40.6	22.0	+ 18 15 36.6	− 20.2	Y.	
28	. .	. .	. .	− 43.0	N. 5 25 30.7	5.6	+ 44 19 15.5	− 28.5	Y.	
29	30.060	52.3	48.4	− 2 41.4	S. 59 12 25.9	1 38.0	− 20 20 24.7	− 14.3	Y.	
30	. .	. .	. .	− 6.0	71 45 2.9	2 55.8	− 32 54 19.5	− 14.0	Y.	Faint; through clouds.
31	30.066	51.9	48.3	+ 29.7	28 0 36.5	31.2	+ 10 52 31.5	− 22.4	Y.	
32	. .	. .	. .	− 1 19.3	6 43 46.6	6.9	+ 32 9 45.7	− 29.0	Y.	
33	. .	. .	. .	+ 1 15.9	6 46 21.8	7.0	+ 32 7 10.4	− 29.1	Y.	
34	30.078	51.3	47.8	+ 2 29.2	41 57 35.6	52.7	− 3 4 49.1	− 22.8	Y.	Barometer recorded 30.178.
35	. .	. .	. .	+ 41.8	38 50 47.4	47.3	+ 0 2 4.5	− 24.0	Y.	
36	. .	. .	. .	− 31.5	22 4 35.7	23.8	+ 16 48 39.7	− 27.7	Y.	
37	. .	. .	. .	+ 2 9.3	35 42 16.1	42.2	+ 3 10 40.9	− 25.9	Y.	
38	. .	. .	. .	− 1 38.2	30 43 31.2	34.9	+ 8 9 33.1	− 27.2	Y.	
39	30.080	51.2	46.8	− 3 26.9	30 41 42.5	34.9	+ 8 11 21.8	− 27.2	Y.	
40	. .	. .	. .	+ 15.1	S. 38 55 22.8	47.5	− 0 2 31.1	− 27.0	Y.	
41	. .	. .	. .	+ 2 22.4	N. 20 42 31.1	22.3	+ 59 36 32.6	− 36.9	Y.	
42	. .	. .	. .	+ 2 3.6	N. 20 42 49.9	22.3	+ 59 36 51.4	− 36.9	Y.	
43	30.090	50.4	46.0	+ 1 21.7	S. 39 51 28.0	49.2	− 0 58 38.0	− 28.6	Y.	
44	. .	. .	. .	+ 14.2	40 35 21.9	50.5	− 1 42 33.2	− 29.2	Y.	
45	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	Apr. 1. Corrected collimation.
46	29.788	50.5	44.2	− 2 6.5	76 8 2.5	3 52.8	− 37 18 16.1	+ 4.3	Y.	Before this observation, moved the circle in azimuth.
47	. .	. .	. .	− 1 59.6	75 48 10.9	3 47.5	− 36 58 19.2	+ 2.6	Y.	
48	. .	. .	. .	+ 20.4	75 50 30.9	3 48.1	− 37 0 39.8	+ 2.3	Y.	
49	. .	. .	. .	+ 24.1	65 45 29.7	2 9.4	− 26 53 59.9	− 1.2	Y.	Circle reading recorded 145° 45′.
50	. .	. .	. .	− 3 43.6	69 41 20.7	2 37.0	− 30 50 18.5	− 1.4	Y.	
51	29.800	50.1	43.9	− 41.7	69 44 22.6	2 37.4	− 30 53 20.8	− 1.5	Y.	
52	. .	. .	. .	− 3 6.1	71 32 4.3	2 53.7	− 32 41 18.8	− 2.4	Y.	
53	. .	. .	. .	− 1 15.0	71 33 55.4	2 54.0	− 32 43 10.2	− 2.4	Y.	
54	. .	. .	. .	− 1 47.1	68 43 22.3	2 29.4	− 29 52 12.5	− 4.3	Y.	
55	. .	. .	. .	− 39.4	66 9 31.0	2 11.8	− 27 18 3.6	− 6.4	Y.	
56	29.790	49.5	43.8	− 44.0	70 14 26.4	2 41.7	− 31 23 28.9	− 6.6	Y.	
57	. .	. .	. .	+ 1 51.3	67 12 1.6	2 18.6	− 28 20 41.0	− 8.5	Y.	
58	. .	. .	. .	+ 1 9.2	64 16 19.2	2 1.1	− 25 24 41.1	− 9.9	Y.	
59	. .	. .	. .	+ 29.2	71 40 38.6	2 55.3	− 32 49 54.7	− 10.0	Y.	
60	. .	. .	. .	+ 2 15.1	59 17 22.1	1 38.5	− 20 25 21.4	− 12.9	Y.	
61	29.796	48.7	43.0	− 47.8	73 49 19.4	3 19.6	− 34 58 59.8	− 11.6	Y.	
62	. .	. .	. .	+ 2 24.0	25 12 32.7	27.6	+ 13 40 38.9	− 23.1	Y.	
63	. .	. .	. .	− 1 29.2	71 38 41.1	2 55.2	− 32 47 57.1	− 14.0	Y.	
64	. .	. .	. .	− 34.1	68 29 36.4	2 28.0	− 29 38 25.2	− 15.3	Y.	
65	. .	. .	. .	− 1 54.4	S. 68 28 16.1	2 27.8	− 29 37 4.7	− 15.4	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.										MICROMETER.		
						A.			B.	C.	D.	E.	F.	Mean.		Observed.	Nadir cor.	C
						°	′	″	″	″	″	″	″	″		r.	r.	r.
1868. April 3	1	Lacaille 4186 . .	7.0	3	III–VII.	359	0	3.2	12.2	7.3	27.0	56.3	14.5	10.08		25.336	. .	[illegible]
	2	Lacaille 4250 . .	. .	2	III, VII.	351	20	4.8	13.9	8.1	26.0	57.5	16.4	11.12		32.055	. .	[illegible]
	3	Weisse X, 378 . .	7.0	3	III–VII.	306	0	0.9	8.8	0.9	19.6	52.0	14.9	6.18		26.921	. .	[illegible]
	4	Weisse (2) X, 513 .	8.3	1	IX.	303	15	0.9	9.3	1.8	20.3	51.3	14.4	6.33		22.758	. .	[illegible]
	5	Weisse X, 600 . .	8.0	3	V–IX.	304	15	0.2	8.7	1.5	19.5	54.0	14.3	6.37		33.239	. .	[illegible]
	6	Anon. 10h. 43m. 9s. .	8.2	3	IV–VI.	356	30	3.2	15.2	8.0	27.6	57.2	14.6	10.97		36.502	. .	[illegible]
	7	54 Leonis, (2d *) . .	7.0	2	VII, IX.	293	30	1.9	9.9	3.9	22.0	54.9	15.6	8.03		37.051	. .	[illegible]
	8	B. A. C. 3779 . .	5.5	1	IX.	318	55	1.9	10.2	3.1	19.9	53.8	15.1	7.33		29.456	. .	[illegible]
	9	Lacaille 4633 . .	7.0	3	IV–VI.	350	40	2.7	12.0	5.7	24.9	55.7	13.3	9.05		26.294	. .	[illegible]
	10	Nadir	. .	5	. .	100	0	2.2	13.8	3.6	26.2	58.3	18.6	10.45		30.153	. .	. .
8	11	β Cancri	. .	3	III–VII.	309	20	5.9	3.0	1.0	59.3	6.2	9.0	4.07		34.187	– 0.005	[illegible]
	12	Lacaille 3293 . .	. .	3	III–VII.	346	15	5.9	3.0	2.1	0.9	4.6	6.0	3.75		29.874	. .	[illegible]
	13	Groombridge 1452 .	. .	3	1–5.	238	25	5.9	1.0	4.2	5.1	8.0	13.0	6.20		29.759	. .	[illegible]
	14	B. A. C. 2930 . .	. .	3	1–5.	"	"	"	"	"	"	"	"	"		33.390	. .	[illegible]
	15	Lacaille 3509 . .	. .	3	IV–VI.	345	0	6.0	3.2	2.8	0.3	5.0	6.7	4.00		30.432	. .	[illegible]
	16	B. A. C. 3031 . .	. .	3	III–VII.	304	10	6.5	1.8	1.9	1.8	8.0	8.0	4.67		25.674	. .	[illegible]
	17	Anon. 8h. 56m. 26s. .	. .	3	III–VII.	346	10	9.0	6.7	7.8	4.0	8.1	8.7	7.38		31.314	. .	[illegible]
	18	Carrington 1325 .	8.5	1	VI.	237	5	5.8	oblit.	3.9	6.0	6.1	11.9	5.61		42.528	. .	[illegible]
	19	Carrington 1338 .	8.0	3	1–5.	"	"	"	"	"	"	"	"	"		31.060	. .	[illegible]
	20	O. Arg. S. 9600 . .	. .	3	III–VII.	345	50	4.2	2.5	2.9	2.0	3.8	5.0	3.40		22.458	. .	[illegible]
	21	O. Arg. S. 9789 . .	. .	1	V.	348	25	4.0	3.9	3.0	1.1	3.0	4.1	3.18		29.143	. .	[illegible]
	22	O. Arg. S. 9903 . .	. .	3	III–VII.	339	10	3.4	0.9	2.1	1.0	3.0	4.0	2.40		29.809	. .	[illegible]
	23	Weisse (2) IX, 794 .	. .	3	IV–VI.	291	15	3.9	0.1	0.0	0.9	3.1	6.9	2.48		31.302	. .	[illegible]
	24	Weisse (2) IX, 815 .	. .	1	V.	"	"	"	"	"	"	"	"	"		17.431	. .	[illegible]
	25	Weisse (2) IX, 966 .	7.0	3	IV–VI.	290	35	5.2	3.2	1.9	3.7	5.0	9.0	4.67		30.942	. .	[illegible]
	26	Anon. 9h. 58m. 24s. .	9.0	3	III–VII.	305	40	6.0	2.2	1.0	1.9	6.0	7.0	4.02		25.218	. .	[illegible]
	27	Lalande 19854 . .	. .	2	III, V.	286	45	6.9	3.1	2.2	4.4	6.1	9.2	5.32		32.612	. .	[illegible]
	28	Lalande 19869 . .	. .	2	V, VII.	"	"	"	"	"	"	"	"	"		22.833	. .	[illegible]
	29	Weisse (2) X, 240 .	. .	3	IV–VI.	306	50	6.7	5.0	3.1	3.0	7.0	9.0	5.63		22.304	. .	[illegible]
	30	Rumker 3171 . .	. .	3	III–VII.	"	"	"	"	"	"	"	"	"		26.650	. .	[illegible]
	31	Nadir	. .	5	. . .	100	0	6.1	9.0	3.0	9.0	8.9	11.9	7.98		30.143	. .	. .
	32	Nadir	. .	5	. . .	100	0	4.7	11.3	3.3	9.5	8.3	11.9	8.16		30.140	. .	. .
	33	Weisse X, 1076 . .	9.0	2	IV, VI.	308	0	1.9	5.8	0.7	1.2	3.5	7.6	3.45		32.501	0.000	[illegible]
	34	Lamont 3284 . .	7.5	3	III–VII.	318	20	4.6	7.2	3.4	3.4	5.1	8.1	5.30		28.853	. .	[illegible]
	35	Lacaille 4735 . .	7.0	1	V.	352	25	7.1	12.9	7.7	10.4	7.5	9.2	9.13		31.368	. .	[illegible]
	36	Lacaille 4760 . .	6.5	3	IV–VI.	356	35	5.4	12.2	7.4	10.8	7.1	7.9	8.47		32.980	. .	[illegible]
	37	Weisse XI, 562 . .	8.5	2	VI, VIII.	319	40	2.6	5.5	2.4	1.9	2.5	6.7	3.60		38.764	. .	[illegible]
	38	Anon. 11h. 40m. 41s.	9.2	3	III–VII.	303	35	5.8	10.9	5.5	8.1	9.1	10.2	8.27		31.076	. .	[illegible]
	39	Weisse (2) XI, 812 .	8.0	2	IV, VII.	"	"	"	"	"	"	"	"	"		22.620	. .	[illegible]
	40	Anon. 11h. 48m. 57s.	8.8	1	V.	282	45	1.8	5.2	1.7	5.1	3.6	7.9	4.22		33.407	. .	[illegible]
	41	Weisse (2) XI, 954 .	7.3	2	VII, IX.	"	"	"	"	"	"	"	"	"		34.598	. .	[illegible]
	42	Anon. 11h. 59m. 19s.	7.5	2	II, IX.	349	10	2.4	8.8	4.3	6.9	3.1	3.9	4.90		32.490	. .	[illegible]
	43	Anon. 11h. 59m. 25s.	9.0	1	V.	"	"	"	"	"	"	"	"	"		34.633	. .	[illegible]
	44	Anon. 12h. 11m. 56s.	8.4	3	III–VII.	295	0	3.9	8.4	4.7	7.3	8.1	9.3	6.95		25.874	. .	[illegible]
11	45	Lacaille 3718 . .	6.5	3	IV–VI.	347	15	4.4	7.2	3.3	3.4	5.2	8.5	5.33		27.924	– 0.011	[illegible]
	46	Lacaille 3751 . .	7.0	3	III–VII.	"	"	"	"	"	"	"	"	"		35.911	. .	[illegible]
	47	Anon. 9h. 17m. 18s. .	8.0	1	V.	357	40	6.1	11.0	6.1	8.0	8.4	9.8	8.23		39.992	. .	[illegible]
	48	Lacaille 3815 . .	6.0	3	IV–VI.	"	"	"	"	"	"	"	"	"		27.994	. .	[illegible]
	49	O. Arg. S. 9855 . .	7.0	2	I, IX.	350	15	2.8	6.2	1.9	3.4	4.1	6.9	4.22		34.068	. .	[illegible]
	50	O. Arg. S. 9856 . .	7.0	3	IV–VI.	"	"	"	"	"	"	"	"	"		25.093	. .	[illegible]
	51	Lacaille 3983 . .	6.0	3	III–VII.	353	45	3.8	7.3	2.9	3.9	6.3	7.6	5.30		30.636	. .	[illegible]
	52	O. Arg. S. 10122 .	7.6	3	III–VII.	343	30	4.6	7.8	2.7	3.1	7.2	9.1	5.75		34.367	. .	[illegible]
	53	Lacaille 4107 . .	6.0	3	III–VII.	357	40	3.9	8.4	4.0	6.2	7.1	7.5	6.18		32.660	. .	[illegible]
	54	Anon. 9h. 57m. 34s. .	6.5	3	III–VII.	"	"	"	"	"	"	"	"	"		36.053	. .	[illegible]
	55	Lacaille 4190 . .	6.5	3	III–VII.	347	45	4.4	9.3	3.9	6.1	6.2	9.9	6.63		34.926	. .	[illegible]
	56	Lacaille 4266 . .	6.5	3	III–VII.	"	"	"	"	"	"	"	"	"		29.844	. .	[illegible]
	57	B. A. C. 3566 . .	6.0	3	IV–VI.	324	40	3.9	7.4	0.7	0.9	6.2	9.3	4.73		33.292	. .	[illegible]
	58	Anon. 10h. 27m. 34s.	8.3	3	III–VII.	354	15	2.3	8.0	2.4	2.9	5.5	8.3	4.90		32.376	. .	[illegible]
	59	Lacaille 4389 . .	8.2	1	V.	351	45	4.9	10.9	4.8	7.2	8.5	9.8	7.68		27.161	. .	[illegible]
	60	O. Arg, S. 10933 .	9.0	3	IV–VI.	342	30	5.1	9.5	4.8	5.9	8.2	10.2	7.28		25.735	. .	[illegible]
	61	Anon. 10h. 47m. 26s.	8.0	3	IV–VI.	"	"	"	"	"	"	"	"	"		30.330	. .	[illegible]
	62	B. A. C. 3778 . .	5.5	3	III–VII.	345	0	3.1	7.7	2.1	3.0	5.2	8.3	4.90		32.108	. .	[illegible]
	63	Nadir	. .	5	. . .	100	0	3.2	7.9	0.7	4.8	7.8	11.9	6.05		30.084	. .	. .
17	64	ξ Cancri	. .	3	IV, V, VII.	296	20	3.9	56.3	55.0	53.3	3.6	8.0	0.02		31.533	+ 0.696	[illegible]
	65	Anon. 9h. 10m. 12s. .	. .	3	III–VII.	346	30	6.1	59.0	0.2	58.0	3.0	9.0	2.55		27.030	. .	[illegible]

Number.	Barometer.	THERM'S.		Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.							
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	29.790	48.1	42.3	+ 2 24.0	S. 79 2 34.0	4 54.9	− 40 13 49.7	− 15.4	Y.	
2	. .	. .	. .	− 1 6.6	71 19 4.5	2 52.2	− 32 28 17.5	− 17.3	Y.	
3	. .	. .	. .	+ 1 34.7	26 1 40.8	28.7	+ 12 51 29.7	− 26.7	Y.	
4	. .	. .	. .	+ 3 44.7	23 18 51.0	25.4	+ 15 34 22.8	− 27.6	Y.	
5	29.792	47.5	41.2	− 1 43.5	24 13 22.8	26.5	+ 14 39 49.9	− 28.1	Y.	
6	. .	. .	. .	− 3 25.7	76 26 45.2	3 59.9	− 37 37 5.9	− 20.7	Y.	
7	. .	. .	. .	− 3 42.4	13 26 25.6	14.1	+ 25 26 59.5	− 31.4	Y.	
8	. .	. .	. .	+ 15.2	38 55 22.5	47.6	− 0 2 30.9	− 26.8	Y.	
9	29.790	47.0	40.5	+ 1 54.2	70 42 3.2	2 46.9	− 31 51 10.9	− 23.6	Y.	
10	. .	. .	. .	. .	. . . .	. .	. . . . .	. .	Y.	April 4. Adjusted the focus. Adjusted the microscopes to read alike.
11	. .	. .	. .	− 2 10.7	29 17 53.3	32.6	+ 9 35 13.3	− 9.4	D.	Inclination of wires badly disturbed.
12	29.878	53.2	47.9	+ 4.0	S. 66 15 7.7	2 11.7	− 27 23 40.2	+ 0.1	D.	
13	. .	. .	. .	+ 7.4	N. 41 34 46.0	51.9	+ 80 29 17.1	− 33.9	D.	
14	. .	. .	. .	− 1 45.8	N. 41 36 39.6	52.0	+ 80 31 10.8	− 34.5	D.	
15	. .	. .	. .	− 13.3	S. 64 59 50.7	2 5.0	− 26 8 16.5	− 3.9	D.	
16	29.908	51.8	44.7	+ 2 15.8	24 12 20.4	26.4	+ 14 40 52.4	− 16.9	D.	
17	. .	. .	. .	− 41.0	S. 66 9 26.3	2 12.3	− 27 17 59.4	− 6.2	D.	
18	. .	. .	. .	− 6 29.7	N. 43 1 24.1	54.9	+ 81 55 58.2	− 37.7	D.	Has a faint companion. Subtracted 1″.37 from mean of C, D, E, and F.
19	. .	. .	. .	− 32.9	N. 42 55 27.3	54.7	+ 81 50 1.2	− 38.2	D.	
20	. .	. .	43.0	+ 3 56.2	S. 65 53 59.6	2 11.1	− 27 2 31.5	− 9.0	D.	
21	. .	. .	. .	+ 27.1	68 25 30.2	2 28.3	− 29 34 19.3	− 10.1	D.	
22	. .	. .	. .	+ 6.1	59 10 8.5	1 38.8	− 20 18 8.1	− 12.8	D.	
23	. .	. .	. .	− 40.4	11 14 22.0	11.8	+ 27 39 5.4	− 27.2	D.	
24	. .	. .	. .	+ 6 33.7	11 21 36.1	11.9	+ 27 31 51.2	− 27.2	D.	
25	. .	. .	. .	− 29.2	10 34 35.4	11.1	+ 28 18 52.7	− 28.2	D.	
26	. .	. .	. .	+ 2 30.0	25 42 34.0	28.6	+ 13 10 36.6	− 24.9	D.	
27	. .	. .	. .	− 1 22.5	6 43 42.8	7.0	+ 32 9 49.4	− 31.0	D.	
28	. .	. .	. .	+ 3 45.8	6 48 51.1	7.1	+ 32 4 41.0	− 31.1	D.	
29	. .	. .	. .	+ 4 1.5	26 54 7.1	30.2	+ 11 59 1.9	− 26.2	D.	
30	29.994	47.0	38.8	+ 1 45.2	26 51 50.8	30.2	+ 12 1 18.2	− 26.5	D.	Whole rev. recorded 36.
31	. .	. .	. .	. . .	. . . .	. . .	. . . . .	. .	D.	
32	. .	. .	. .	. . .	. . . .	. . .	. . . . .	. .	D.	
33	30.020	46.8	36.7	− 1 18.3	27 58 45.1	31.8	+ 10 54 22.3	− 29.5	Y.	
34	. .	. .	. .	+ 35.9	38 20 41.2	47.4	+ 0 32 10.6	− 28.2	Y.	
35	. .	. .	. .	− 42.8	72 24 26.3	3 7.1	− 33 33 54.2	− 24.3	Y.	
36	30.040	45.9	36.1	− 1 33.3	76 33 35.1	4 6.4	− 37 44 2.3	− 24.5	Y.	
37	. .	. .	. .	− 4 34.3	39 35 29.3	49.6	− 0 42 39.7	− 29.2	Y.	
38	. .	. .	. .	− 33.6	23 34 34.6	26.2	+ 15 18 38.4	− 32.2	Y.	
39	. .	. .	. .	+ 3 51.6	23 38 59.8	26.3	+ 15 14 13.1	− 32.3	Y.	
40	. .	. .	. .	− 1 46.7	2 43 17.5	2.8	+ 36 10 18.9	− 36.1	Y.	
41	30.054	44.5	35.5	− 2 20.1	2 42 44.1	2.8	+ 36 10 52.3	− 36.1	Y.	
42	. .	. .	. .	− 1 18.2	69 8 46.7	2 36.7	− 30 17 44.2	− 28.1	Y.	
43	. .	. .	. .	− 2 25.0	69 7 39.9	2 36.5	− 30 16 37.2	− 28.1	Y.	
44	30.064	43.7	35.0	+ 2 9.2	15 2 16.1	16.2	+ 23 51 6.9	− 34.0	Y.	
45	. .	. .	. .	+ 1 5.3	67 16 10.6	2 17.9	− 28 24 49.3	− 7.3	Y.	
46	29.844	50.7	48.3	− 3 4.9	67 12 0.4	2 17.5	− 28 20 38.7	− 7.9	Y.	
47	. .	. .	. .	− 5 12.4	77 34 55.8	4 18.4	− 38 45 35.0	− 7.0	Y.	Circle reading recorded 257° 40′.
48	. .	. .	. .	+ 1 3.1	77 41 11.3	4 20.6	− 38 51 52.7	− 7.3	Y.	
49	. .	. .	. .	− 2 7.9	70 12 56.3	2 40.6	− 31 21 57.7	− 10.0	Y.	
50	29.836	50.5	47.1	+ 2 33.9	70 17 38.1	2 41.3	− 31 26 40.2	− 10.0	Y.	
51	. .	. .	. .	− 19.8	73 44 45.5	3 17.4	− 34 54 23.7	− 10.7	Y.	
52	. .	. .	. .	− 2 16.5	63 27 49.2	1 56.2	− 24 36 6.2	− 13.3	Y.	
53	. .	. .	. .	− 1 23.2	77 38 42.9	4 20.3	− 38 49 24.0	− 12.9	Y.	
54	29.830	50.0	46.4	− 3 9.4	77 36 56.7	4 19.7	− 38 47 37.2	− 13.1	Y.	
55	. .	. .	. .	− 2 34.0	67 42 32.6	2 21.4	− 28 51 14.8	− 15.9	Y.	
56	. .	. .	46.1	+ 5.0	67 45 11.6	2 21.8	− 28 53 54.2	− 17.1	Y.	
57	. .	. .	. .	− 1 42.7	44 38 22.0	57.3	− 5 45 40.4	− 22.2	Y.	
58	29.816	49.6	46.3	+ 1 14.3	74 13 50.6	3 23.7	− 35 23 35.1	− 17.6	Y.	
59	. .	. .	. .	+ 1 29.2	71 46 36.8	2 55.4	− 32 55 53.0	− 18.8	Y.	
60	. .	. .	. .	+ 2 13.8	62 32 21.0	1 51.8	− 23 40 33.6	− 21.5	Y.	
61	. .	. .	. .	− 10.0	62 29 57.2	1 51.6	− 23 38 9.6	− 21.7	Y.	
62	. .	. .	. .	− 1 5.8	64 58 59.1	2 4.4	− 26 7 24.3	− 22.2	Y.	
63	. .	. .	. .	. . .	. . . .	. . .	. . . . .	. .	Y.	April 13. Adjusted inclination. D.
64	. .	. .	. .	− 1 9.6	16 18 50.4	16.5	+ 22 34 32.3	− 21.9	D.	Mic. E recorded 56.4. Corrected by setting the circle on the same division after the next observation.
65	29.869	64.0	64.0	+ 1 11.0	S. 66 31 13.5	2 9.0	− 27 39 43.3	− 7.7	D.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES. A.	B.	C.	D.	E.	F.	Mean.	MICROMETER. Observed.	Nadir cor.	C[illegible]
						° ′ ″	″	″	″	″	″	″	r.	r.	r
1868. April 17	1	Weisse (2) IX, 471 .	. .	3	IV-VI.	274 35 7.6	1.1	1.8	1.1	9.0	15.1	5.95	30.714	. .	[illegible]
	2	O. Arg. S. 9888 . .	8.0	3	III-VII.	339 15 9.0	4.0	4.0	2.0	8.0	12.0	6.50	25.119	. .	[illegible]
	3	Lacaille 3984 . .	. .	3	IV-VI.	351 40 9.0	4.8	3.6	3.0	7.8	12.0	6.70	31.179	. .	[illegible]
	4	Lacaille 4007 . .	. .	3	IV-VI.	" " "	"	"	"	"	"	"	19.693	. .	[illegible]
	5	Lacaille 4076 . .	. .	3	IV-VI.	345 45 8.8	1.7	1.1	58.3	5.0	9.2	4.02	33.554	. .	[illegible]
	6	Anon. 9h. 57m. 9s. .	9.0	2	II, V, IX.	348 30 8.0	3.6	3.4	0.9	6.0	11.0	5.48	30.188	. .	[illegible]
	7	Anon. 9h. 57m. 37s. .	8.0	3	II, V, IX.	" " "	"	"	"	"	"	"	32.664	. .	[illegible]
	8	Weisse (2) X, 179 .	8.0	3	IV-VI.	288 40 7.8	0.0	58.8	7.8	6.8	11.2	5.40	27.744	. .	[illegible]
	9	Lacaille 4257 . .	. .	3	III-VII.	343 35 7.2	1.8	1.3	8.2	6.0	0.3	4.13	30.192	. .	[illegible]
	10	B. A. C. 3627 . .	6.0	3	III-VII.	341 20 7.2	2.0	1.7	0.2	6.0	9.0	4.35	25.654	. .	[illegible]
	11	B. A. C. 3661 . .	. .	3	IV-VI.	286 30 6.0	59.0	58.5	59.1	5.3	12.1	3.33	28.698	. .	[illegible]
	12	Weisse X, 803 . .	7.0	3	III-VII.	306 50 6.0	59.9	57.6	56.8	5.0	10.0	2.55	29.688	. .	[illegible]
	13	Anon. 10h. 50m. 48s.	8.0	3	IV-VI.	346 40 8.0	2.0	2.6	1.0	5.0	10.4	4.83	33.269	. .	[illegible]
	14	Weisse (2) X, 1221 .	8.3	3	IV-VI.	283 25 7.9	2.8	2.1	2.0	9.0	15.0	6.47	24.219	. .	[illegible]
	15	Rumker 3497 . .	7.0	3	IV-VI.	257 55 7.1	1.3	3.2	4.0	9.0	15.8	6.73	30.581	. .	[illegible]
	16	O. Arg. S. 11344 .	. .	3	III-VII.	341 55 7.8	2.2	2.0	1.0	6.0	9.9	4.82	34.202	. .	[illegible]
	17	B. A. C. 3906 . .	. .	3	1-5.	237 5 5.8	oblit.	1.9	2.0	6.0	13.8	3.18	32.912	. .	[illegible]
	18	Weisse (2) XI, 526 .	. .	3	IV-VI.	298 5 7.1	2.7	0.1	57.9	6.9	11.3	4.33	32.640	. .	[illegible]
	19	Nadir	. .	5	. .	100 0 6.3	3.9	59.8	2.1	7.2	14.0	5.55	29.361	. .	. .
20	20	Nadir	. .	5	. .	100 0 6.0	6.1	2.0	7.0	8.0	12.0	6.85	29.400	. .	. .
	21	Nadir	. .	5	. .	100 5 5.4	5.2	0.9	6.5	6.4	10.6	5.84*d*	38.929	. .	. .
	22	Nadir	. .	5	. .	99 55 5.5	7.0	2.0	7.5	7.8	11.0	6.82*d*	19.794	. .	. .
	23	Nadir	. .	5	. .	100 0 5.0	6.0	1.6	7.0	8.0	11.1	6.45	30.384	. .	. .
	24	48 Leonis	. .	3	III-VII.	311 15 5.9	3.0	1.0	1.9	4.0	7.0	3.80	28.928	+ 0.700	[illegible]
	25	42 Leonis Minoris . .	. .	3	IV-VI.	287 30 6.2	3.2	2.0	4.9	7.0	10.9	5.70	27.668	. .	[illegible]
	26	44 Ursæ Majoris . .	. .	3	IV-VI.	263 35 6.0	3.2	4.2	7.6	7.7	12.0	6.78	26.244	. .	[illegible]
21	27	26 Hydræ	5.5	3	III-VII.	330 20 5.1	8.1	3.8	5.0	4.9	8.5	5.90	33.406	+ 0.713	[illegible]
	28	Anon. 10h. 20m. 54s.	7.5	3	III-VII.	346 40 3.1	4.8	2.9	2.9	0.9	6.1	3.45	29.376	. .	[illegible]
	29	Anon. 9h. 21m. 42s. .	7.3	3	V-IX.	" " "	"	"	"	"	"	"	27.166	. .	[illegible]
	30	Weisse (2) IX, 639 .	8.0	3	III-VII.	301 30 5.8	8.7	4.8	5.4	6.9	11.4	7.17	33.712	. .	[illegible]
	31	Weisse (2) IX, 817 .	8.3	3	III-VII.	291 10 4.1	6.1	2.8	4.1	5.6	10.3	5.50	34.178	. .	[illegible]
	32	Weisse (2) IX, 837 .	9.0	1	V.	" " "	"	"	"	"	"	"	29.157	. .	[illegible]
	33	Anon. 9h. 47m. 22s. .	8.0	3	III-VII.	358 10 4.3	9.5	6.2	10.0	4.1	7.0	6.85	25.076	. .	[illegible]
	34	Lacaille 4107 . .	6.5	3	III-VII.	357 40 5.2	10.9	7.3	10.8	7.1	8.5	8.30	32.049	. .	[illegible]
	35	Anon. 9h. 57m. 33s. .	6.5	3	III-VII.	" " "	"	"	"	"	"	"	35.450	. .	[illegible]
	36	Weisse X, 70 . .	8.3	3	III-VII.	329 20 2.9	5.7	2.8	2.4	3.1	6.4	3.88	25.701	. .	[illegible]
	37	Anon. 10h. 13m. 28s.	7.8	3	III-VII.	322 35 5.7	7.3	3.9	5.5	6.2	9.1	6.28	31.616	. .	[illegible]
	38	B. A. C. 3563 . .	5.5	3	III-VII.	325 15 4.0	5.9	0.9	1.8	4.0	7.3	3.98	26.310	. .	[illegible]
	39	Anon. 10h. 34m. 52s.	8.5	3	IV-VI.	354 45 6.9	12.1	8.1	9.6	8.7	11.1	9.42	30.502	. .	[illegible]
	40	Lacaille 4480 . .	6.5	3	III-VII.	357 20 6.7	12.3	8.5	10.9	8.1	11.5	9.67	33.177	. .	[illegible]
	41	Anon. 10h. 50m. 42s.	8.3	3	III-VII.	360 10 4.7	9.6	5.6	9.3	5.5	8.4	7.18	31.988	. .	[illegible]
	42	Lacaille 4535 . .	7.0	3	V-IX.	" " "	"	"	"	"	"	"	32.295	. .	[illegible]
	43	Anon. 10h. 59m. 0s. .	9.3	3	III-VII.	348 40 5.8	11.7	7.5	9.0	7.7	9.7	8.57	28.194	. .	[illegible]
	44	Lacaille 4665 . .	6.5	3	III-VII.	351 25 4.6	7.4	4.3	5.1	4.0	6.1	5.25	25.418	. .	[illegible]
	45	B. A. C. 3875 . .	5.5	3	III-VII.	354 15 7.5	13.1	8.9	10.9	8.5	12.0	10.15	25.894	. .	[illegible]
	46	Weisse XI, 403 . .	6.5	3	III-VII.	324 50 4.8	8.4	3.1	5.0	5.6	9.5	6.07	24.997	. .	[illegible]
	47	Lacaille 4805 . .	7.0	3	III-VII.	352 45 7.9	12.1	7.9	9.9	6.4	11.7	9.32	27.566	. .	[illegible]
	48	B. A. C. 3963 . .	5.5	2	VII, IX	352 50 7.9	11.8	7.9	10.8	7.4	11.4	9.53	26.581	. .	[illegible]
	49	Anon. 11h. 42m. 4s. .	6.5	3	IV-VI.	354 5 4.5	9.1	4.8	7.7	5.2	8.1	6.57	28.171	. .	[illegible]
	50	Anon. 11h. 48m. 50s.	10.0	2	VII, IX.	352 10 5.0	9.0	5.4	8.0	4.9	7.5	6.63	30.416	. .	[illegible]
	51	Anon. 11h. 56m. 4s. .	8.3	2	II, VIII.	354 0 9.5	14.7	10.3	12.8	11.4	12.9	11.93	27.698	. .	[illegible]
	52	B. A. C. 4098 . .	6.3	3	III-VII.	356 0 6.6	12.8	7.2	11.2	6.7	9.6	9.02	33.212	. .	[illegible]
	53	Anon. 12h. 12m. 37s.	8.3	3	III-VII.	344 15 6.4	9.2	6.1	7.3	5.7	8.8	7.25	31.327	. .	[illegible]
	54	κ^2 Centauri	5.5	3	III-VII.	353 20 4.9	9.7	6.3	9.8	6.1	9.1	7.65	33.602	. .	[illegible]
	55	Anon. 12h. 24m. 37s. .	8.5	3	V-IX.	351 50 7.1	12.9	9.7	12.2	9.1	11.2	10.37	34.837	. .	[illegible]
	56	Anon. 12h. 32m. 12s.	9.5	2	V, VII.	305 20 1.4	4.2	1.4	3.5	2.5	7.1	3.37	32.923	. .	[illegible]
	57	Anon.	9.5	1	IX.	304 25 3.7	7.5	4.2	6.5	7.1	10.2	6.53	26.531	. .	[illegible]
	58	Nadir	. .	5	. .	100 0 5.1	11.9	4.9	11.8	9.1	13.8	9.43	29.468	. .	. .
22	59	*h* Mali	. .	3	III-VII.	344 15 5.7	0.0	58.3	58.0	2.8	6.0	1.80	26.851	+ 0.691	[illegible]
	60	Weisse (2) IX, 639 .	. .	3	III-VII.	301 25 9.8	4.0	2.0	0.7	8.1	12.2	6.13	24.110	. .	[illegible]
	61	Lacaille 3976 . .	. .	3	V-VII.	348 35 9.0	6.0	5.1	4.0	7.6	10.4	7.02	31.832	. .	[illegible]
	62	Anon. 9h. 41m. 22s. .	9.0	2	V, VII.	" " "	"	"	"	"	"	"	36.548	. .	[illegible]
	63	O. Arg. S. 10131 .	. .	3	V-VII.	" " "	"	"	"	"	"	"	31.203	. .	[illegible]
	64	Weisse (2) IX, 1038 .	. .	3	IV-VI.	289 40 7.1	2.0	59.8	0.1	7.1	11.7	4.63	24.980	. .	[illegible]
	65	Weisse (2) IX, 1065 .	. .	3	V-VII.	" " "	"	"	"	"	"	"	27.680	. .	[illegible]

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	− 44.0	N. 5 25 38.1	5.4	+ 44 19 22.7	− 31.8	D.	
2	. .	. .	. .	+ 2 10.9	S. 59 17 17.4	1 34.8	− 20 25 13.0	− 12.2	D.	
3	29.878	. .	62.6	− 58.8	71 39 7.9	2 48.8	− 32 48 17.5	− 10.5	D.	
4	. .	. .	. .	+ 5 0.8	71 45 7.5	2 49.9	− 32 54 18.2	− 11.0	D.	
5	. .	. .	. .	− 2 13.1	65 42 50.9	2 5.0	− 26 51 16.7	− 13.6	D.	Whole rev. recorded 34.
6	. .	. .	. .	− 28.1	68 29 37.3	2 23.1	− 29 38 21.2	− 13.9	D.	Reading at IX (30.116,) allowed ½ weight.
7	. .	. .	. .	− 1 45.6	68 28 19.8	2 22.9	− 29 37 3.5	− 14.0	D.	Rev. noted carefully.
8	. .	. .	. .	+ 48.9	8 40 54.3	8.7	+ 30 12 36.2	− 31.8	D.	
9	29.896	62.2	59.2	− 28.0	63 34 36.1	1 54.2	− 24 42 51.1	− 17.2	D.	
10	. .	. .	. .	+ 1 54.1	61 21 58.4	1 44.1	− 22 30 3.3	− 19.2	D.	
11	. .	. .	. .	+ 19.0	6 30 22.3	6.5	+ 32 23 10.4	− 34.3	D.	
12	. .	. .	. .	− 12.0	26 49 50.5	28.9	+ 12 3 19.8	− 29.2	D.	
13	29.912	61.2	58.4	− 2 4.2	66 38 0.6	2 11.4	− 27 46 32.8	− 20.7	D.	
14	. .	. .	. .	+ 2 39.2	S. 3 27 45.6	3.5	+ 35 25 50.1	− 36.5	D.	
15	. .	. .	. .	− 39.8	N. 22 5 33.1	23.2	+ 60 59 35.5	− 43.1	D.	
16	. .	. .	59.2	− 2 33.5	S. 61 52 31.3	1 46.3	− 23 0 38.4	− 24.0	D.	
17	. .	. .	. .	− 1 52.9	N. 42 56 49.8	53.1	+ 81 51 22.1	− 47.1	D.	−0″.77 added to mean of C, D, E, and F.
18	. .	. .	. .	− 1 44.4	S. 18 3 19.9	18.6	+ 20 50 0.7	− 33.8	D.	
19	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
20	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	For value of a revolution of the telescope micrometer screw.
21	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
22	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
23	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
24	30.004	54.0	48.0	+ 11.7	31 15 15.5	35.5	+ 7 37 48.2	− 26.9	D.	Cloudy.
25	. .	. .	. .	+ 51.2	S. 7 30 56.9	7.7	+ 31 22 34.6	− 34.7	D.	
26	29.998	53.0	48.0	+ 1 35.8	N. 16 23 17.5	17.2	+ 55 17 13.9	− 41.7	D.	Barometer and thermometers read at 11ʰ 0ᵐ.
27	30.092	52.0	49.5	− 2 9.0	S. 50 17 56.9	1 10.4	− 11 25 28.1	− 12.5	Y.	
28	. .	. .	. .	− 2.9	66 40 0.5	2 14.8	− 27 48 36.1	− 9.2	Y.	
29	. .	. .	. .	+ 1 6.1	66 41 9.5	2 15.0	− 27 49 45.3	− 9.3	Y.	
30	30.096	53.7	49.2	− 2 18.4	21 27 48.7	23.0	+ 17 25 27.5	− 24.1	Y.	
31	. .	. .	. .	− 2 33.0	11 7 32.5	11.5	+ 27 45 55.2	− 28.6	Y.	
32	. .	. .	. .	+ 4.0	11 10 9.5	11.6	+ 27 43 18.1	− 28.7	Y.	
33	. .	. .	. .	+ 2 11.5	78 12 18.3	4 33.6	− 39 23 12.7	− 10.6	Y.	
34	. .	. .	. .	− 1 26.7	77 38 41.6	4 21.6	− 38 49 24.0	− 11.9	Y.	
35	30.106	53.2	48.5	− 3 13.2	77 36 55.1	4 21.0	− 38 47 36.9	− 12.1	Y.	
36	. .	. .	. .	+ 1 52.2	49 21 56.0	1 8.3	− 10 29 25.1	− 19.5	Y.	
37	. .	. .	. .	− 1 12.9	42 33 53.3	53.9	− 3 41 8.0	− 22.2	Y.	
38	. .	. .	. .	+ 1 33.2	45 16 37.1	59.3	− 6 23 57.2	− 22.1	Y.	
39	30.108	52.3	47.0	− 38.1	74 44 31.3	3 32.4	− 35 54 24.5	− 17.3	Y.	
40	. .	. .	. .	− 2 2.0	77 18 7.6	4 15.6	− 38 28 44.0	− 18.0	Y.	
41	. .	. .	. .	− 1 25.1	80 8 42.0	5 27.2	− 41 20 30.0	− 18.5	Y.	
42	. .	. .	. .	− 1 34.7	80 8 32.4	5 27.1	− 41 20 20.3	− 18.6	Y.	
43	. .	. .	. .	+ 34.0	68 40 42.5	2 29.9	− 29 49 33.2	− 21.0	Y.	
44	. .	. .	. .	+ 2 0.9	71 27 6.1	2 54.0	− 32 36 20.9	− 21.6	Y.	Circle reading recorded 151° 25′.
45	30.116	51.5	45.6	+ 1 46.0	74 16 56.1	3 26.7	− 35 26 43.6	− 22.0	Y.	
46	. .	. .	. .	+ 2 14.3	44 52 20.3	58.7	− 5 59 39.8	− 27.8	Y.	
47	. .	. .	. .	+ 53.7	72 46 3.0	3 8.2	− 33 55 32.0	− 23.4	Y.	
48	. .	. .	. .	+ 1 24.0	72 51 33.5	3 9.2	− 34 1 3.5	− 23.7	Y.	
49	30.108	51.0	44.8	+ 34.9	74 5 41.4	3 24.5	− 35 15 26.7	− 24.3	Y.	
50	. .	. .	. .	− 36.0	72 9 30.6	3 1.6	− 33 18 53.0	− 25.1	Y.	Very faint; observation uncertain.
51	. .	. .	. .	+ 49.1	74 1 1.0	3 23.5	− 35 10 45.3	− 25.5	Y.	
52	30.108	50.4	44.7	− 2 3.1	75 58 5.9	3 52.3	− 37 8 19.0	− 25.9	Y.	
53	. .	. .	. .	− 1 4.0	64 14 3.2	2 2.0	− 25 22 26.0	− 27.6	Y.	
54	. .	. .	. .	− 2 15.3	73 17 52.3	3 14.8	− 34 27 27.9	− 27.1	Y.	
55	. .	. .	. .	− 2 54.2	71 47 16.1	2 58.1	− 32 56 35.0	− 27.6	Y.	
56	30.110	49.9	43.4	− 1 53.8	25 18 9.5	28.0	+ 13 35 1.7	− 33.8	Y.	
57	. .	. .	. .	+ 1 26.7	24 26 33.2	27.0	+ 14 26 39.0	− 33.8	Y.	No time recorded.
58	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
59	30.198	60.0	57.8	+ 1 16.8	64 16 18.6	1 59.2	− 25 24 38.6	− 9.0	D.	
60	. .	. .	. .	+ 2 42.8	21 27 48.9	22.7	+ 17 25 27.6	− 24.2	D.	
61	. .	. .	. .	− 1 19.1	68 33 47.9	2 26.2	− 29 42 34.9	− 10.8	D.	
62	. .	. .	. .	− 3 46.7	68 31 20.3	2 26.0	− 29 40 7.1	− 11.6	D.	
63	. .	. .	56.5	− 59.4	68 34 7.6	2 26.4	− 29 42 54.8	− 11.7	D.	
64	. .	. .	. .	+ 2 15.6	9 42 20.2	9.9	+ 29 11 9.1	− 30.2	D.	
65	. .	. .	. .	+ 51.1	S. 9 40 55.7	9.9	+ 29 12 33.6	− 30.3	D.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES. A.	B.	C.	D.	E.	F.	Mean.	MICROMETER. Observed.	Nadir cor.	Corr'd
						° ′ ″	″	″	″	″	″	″	r.	r.	r.
1868. April 22	1	Weisse IX, 1243	. .	3	III–VII.	305 15 7.0	0.0	58.9	58.8	6.0	9.0	3.28	25.148	. .	25.[illegible]
	2	Weisse IX, 1279	7.0	3	III–VII.	“ “ “	“	“	“	“	“	“	32.676	. .	33.[illegible]
	3	Anon. 10h. 7m. 31s.	8.5	3	III–VII.	348 40 7.6	5.0	4.0	3.2	6.1	8.9	5.80	32.956	. .	33.[illegible]
	4	Anon. 10h. 14m. 23s.	8.0	3	III–VII.	341 50 8.0	3.0	3.7	2.0	7.0	9.0	5.45	28.026	. .	[illegible]
	5	Weisse X, 378	7.5	3	IV–IV.	306 0 8.0	1.1	59.3	59.2	6.0	10.9	4.08	26.325	. .	27.[illegible]
	6	Weisse X, 520	7.0	3	III–VII.	330 25 7.9	3.2	4.0	2.8	6.0	9.9	5.63	31.215	. .	31.[illegible]
	7	Weisse (2) X, 711	8.5	3	III–VII.	284 50 8.0	2.0	2.2	3.0	8.9	12.8	6.15	28.807	. .	29.[illegible]
	8	Anon. 10h. 41m. 17s.	9.0	3	III–VII.	348 50 8.0	4.5	4.0	4.0	5.9	9.7	6.02	33.348	. .	34.[illegible]
	9	O. Arg. S. 10907	8.0	3	III–VII.	“ “ “	“	“	“	“	“	“	33.136	. .	33.[illegible]
	10	Weisse (2) X, 1017	. .	3	IV–VI.	296 20 9.9	4.2	3.0	3.8	9.0	12.8	7.25	31.520	. .	32.21[illegible]
	11	Schjellerup 4037	8.0	3	I–V.	307 55 9.1	5.0	3.0	2.2	9.9	13.0	6.88	35.159	. .	35.[illegible]
	12	Weisse X, 1076	. .	2	III, V.	“ “ “	“	“	“	“	“	“	22.370	. .	23.[illegible]
	13	Weisse X, 1087	. .	1	VI.	“ “ “	“	“	“	“	“	“	25.168	. .	25.[illegible]
	14	Weisse X, 1090	. .	2	VIII, IX.	“ “ “	“	“	“	“	“	“	22.680	. .	23.[illegible]
	15	Weisse XI, 133	. .	3	III–VII.	321 35 9.1	3.6	4.0	3.5	8.9	12.0	6.85	23.441	. .	24.1[illegible]
	16	Nadir	. .	5	. .	100 0 8.5	6.1	2.0	6.1	9.8	15.3	7.97	29.444	. .	. .
23	17	Nadir	. .	5	. .	100 0 2.9	4.2	57.1	1.1	4.5	12.2	3.67	29.254	. .	. .
	18	Nadir	. .	5	. .	99 55 0.7	3.1	55.9	0.0	3.2	10.7	2.27	19.621	. .	. .
	19	Nadir	. .	5	. .	100 5 4.5	7.5	59.8	3.9	8.0	14.6	6.38	38.918	. .	. .
	20	Nadir	. .	5	. .	100 0 4.2	7.4	59.1	3.5	7.5	14.8	6.08	29.339	. .	. .
	21	ι Leonis	5.0	2	IV, VI.	307 40 7.1	7.4	1.8	1.1	7.8	14.0	6.53	33.464	+ 0.729	34.1[illegible]
	22	Weisse XI, 450	7.6	3	III–VII.	324 40 3.8	3.6	58.9	58.2	2.8	8.9	2.70	26.782	. .	27.51[illegible]
	23	Anon. 11h. 28m. 33s.	9.0	3	V–IX.	“ “ “	“	“	“	“	“	“	31.930	. .	32.[illegible]
	24	Lacaille 4845	7.0	2	VII, IX.	347 20 7.1	8.4	5.6	5.1	6.1	12.1	7.40	29.691	. .	30.4[illegible]
	25	Lacaille 4906	7.0	3	III–VII.	351 15 7.8	9.6	7.0	7.0	8.0	11.3	8.45	28.576	. .	29.3[illegible]
	26	B. A. C. 4042	6.2	3	III–VII.	344 5 5.0	6.5	3.2	2.3	4.4	9.4	5.13	34.682	. .	35.4[illegible]
	27	O. Arg. S. 11876	7.0	3	III–VII.	349 20 7.0	9.7	6.8	6.5	6.2	10.8	7.83	32.494	. .	33.2[illegible]
	28	O. Arg. S. 11982	6.5	3	III–VII.	344 5 4.8	6.2	3.1	3.0	4.1	9.7	5.15	30.880	. .	31.[illegible]
	29	Anon. 12h. 9m. 11s.	8.0	1	V.	344 40 4.0	3.8	1.0	1.1	1.9	7.6	3.23	26.316	. .	27.[illegible]
	30	Lalande 23270	7.0	3	V–IX.	“ “ “	“	“	“	“	“	“	22.466	. .	23.[illegible]
	31	Lalande 23219	8.5	3	III–VII.	323 45 7.0	8.1	4.2	4.3	7.1	12.0	7.12	24.079	. .	24.[illegible]
	32	Lalande 23270	7.2	3	III–VII.	“ “ “	“	“	“	“	“	“	30.481	. .	31.211
	33	B. A. C. 4241	7.0	2	IV, V.	299 45 3.1	4.7	0.2	0.6	3.1	9.1	3.47	25.308	. .	26.0[illegible]
	34	24 Comæ	5.0	2	II, VIII.	“ “ “	“	“	“	“	“	“	25.297	. .	26.[illegible]
	35	O. Arg. S. 12389	6.0	3	III–VII.	346 55 3.2	4.8	2.9	3.0	1.4	8.7	4.00	31.143	. .	31.8[illegible]
	36	Nadir	. .	5	. .	100 0 2.2	7.1	59.2	4.9	3.9	11.6	4.82	29.325	. .	. .
27	37	12 Leonis	. .	3	III–VII.	292 55 6.8	2.7	0.0	2.1	8.0	12.0	5.27	27.778	+ 0.713	28.4[illegible]
	38	B. A. C. 3339	. .	3	III–VII.	316 30 7.0	0.5	59.0	59.8	5.0	10.0	3.55	30.401	. .	31.114
	39	Weisse (2) IX, 1038	. .	3	III–VII.	289 40 9.1	5.0	1.8	3.0	9.0	13.1	6.83	25.065	. .	25.77[illegible]
	40	O. Arg. S. 10337	. .	3	III–VII.	342 30 9.3	5.1	4.2	4.3	7.1	10.9	6.82	27.596	. .	28.31[illegible]
	41	Weisse X, 38	. .	3	III–VII.	312 5 10.2	5.2	3.0	3.0	8.0	11.8	6.87	30.970	. .	31.[illegible]
	42	Weisse (2) X, 194	7.0	3	III–VII.	275 10 11.0	6.2	5.7	9.2	11.1	18.1	10.22	27.499	. .	28.2[illegible]
	43	Anon. 10h. 16m. 47s.	. .	3	III–VII.	346 15 9.0	5.0	4.0	4.0	6.1	9.9	6.33	33.815	. .	34.5[illegible]
	44	Weisse X, 375	7.0	3	III–VII.	308 5 10.0	5.9	2.9	3.0	9.2	13.2	7.37	32.464	. .	33.1[illegible]
	45	Weisse X, 412	8.0	3	III–VII.	“ “ “	“	“	“	“	“	“	20.639	. .	21.35[illegible]
	46	O. Arg. S. 10775	8.2	3	III–VII.	347 20 11.0	7.0	6.5	7.0	7.1	12.7	8.55	36.252	. .	36.[illegible]
	47	O. Arg. S. 10874	. .	2	II, VIII.	346 20 10.0	5.1	5.0	5.0	7.8	12.0	7.48	32.238	. .	32.[illegible]
	48	O. Arg. S. 10872	. .	3	IV–VI.	“ “ “	“	“	“	“	“	“	29.453	. .	30.16[illegible]
	49	Weisse (2) X, 963	. .	3	III–VII.	295 5 8.2	3.0	1.7	3.1	8.8	12.8	6.10	36.403	. .	37.111
	50	Weisse (2) X, 1152	. .	3	IV–VI.	282 0 8.2	2.2	2.0	2.9	7.7	13.0	6.00	24.857	. .	25.56[illegible]
	51	O. Arg. S. 11188	. .	2	IV, VI.	344 5 7.0	3.1	2.0	2.2	5.0	8.8	4 68	22.980	. .	23.[illegible]
	52	O. Arg. S. 11216	. .	3	IV–VI.	“ “ “	“	“	“	“	“	“	30.576	. .	31.2[illegible]
	53	O. Arg. S. 11291	. .	2	V, VI.	346 35 6.0	0.9	2.0	1.1	3.0	7.1	3.35	30.177	. .	30.[illegible]
	54	O. Arg. S. 11304	. .	3	IV–VI.	“ “ “	“	“	“	“	“	“	25.736	. .	26.451
	55	Weisse XI, 450	. .	3	IV–VI.	324 40 5.0	0.8	58.2	58.0	2.1	6.8	1.82	26.715	. .	27.42[illegible]
	56	Anon. 11h. 28m. 32s.	. .	3	III–VII.	“ “ “	“	“	“	“	“	“	31.886	. .	32.600
	57	Weisse XI, 680	. .	3	III–VII.	321 10 5.0	0.8	0.1	0.0	3.1	7.0	2.67	31.042	. .	31.755
	58	Nadir	. .	5	. .	100 0 6.1	4.3	59.1	5.0	6.0	12.1	5.43	29.340	. .	. .
	59	Lacaille 5368	7.0	3	III–VII.	347 25 5.2	5.9	3.4	2.9	2.2	8.7	4.72	29.846	+ 0.728	30.5[illegible]
	60	Lacaille 5440	7.0	3	III–VII.	347 15 8.1	8.4	6.6	6.4	6.1	11.8	7.90	28.779	. .	29.51[illegible]
	61	γ Hydræ	4.5	3	III–VII.	341 20 6.1	7.9	3.7	5.3	5.7	8.4	6.18	28.544	. .	29.27[illegible]
	62	i Virginis	5.0	3	III–VII.	330 55 6.2	8.5	3.7	4.6	6.4	9.8	6.53	31.876	. .	32.606
	63	Lacaille 5580	5.8	3	III–VII.	346 50 6.3	9.1	5.4	5.0	5.2	9.9	6.82	25.262	. .	25.990
	64	Lacaille 5635	6.5	3	III–VII.	345 45 5.8	6.7	3.2	2.9	4.1	8.1	5.13	27.455	. .	28.1[illegible]
	65	85 Virginis	6.0	3	III–VII.	334 0 4.5	5.7	1.2	2.9	3.7	7.9	4.32	32.107	. .	32.83[illegible]
	66	Anon. 13h. 44m. 29s.	8.3	2	VII, IX.	356 50 7.2	11.1	6.1	9.6	6.8	oblit.	5.86	34.108	. .	34.[illegible]

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	+ 2 10.4	S. 25 17 13.6	27.4	+ 13 35 58.2	− 26.0	D.	
2	. .	. .	. .	− 1 45.3	25 13 17.9	27.3	+ 13 39 54.0	− 26.2	D.	
3	. .	. .	. .	− 1 54.4	68 38 11.4	2 27.2	− 29 46 59.4	− 15.0	D.	
4	30.208	59.3	55.2	+ 40.0	61 50 45.4	1 48.0	− 22 58 54.2	− 17.3	D.	
5	. .	. .	. .	+ 1 33.5	26 1 37.5	28.4	+ 12 51 33.3	− 28.1	D.	
6	. .	. .	. .	− 59.7	50 24 5.9	1 10.1	− 11 31 36.8	− 21.8	D.	
7	. .	. .	. .	+ 15.9	4 50 22.0	4.9	+ 34 3 12.3	− 35.7	.	
8	. .	. .	. .	− 2 6.6	68 47 59.4	2 28.8	− 29 56 49.0	− 19.0	D.	
9	. .	. .	54.3	− 2 0.0	68 48 6.0	2 28.8	− 29 56 55.6	− 19.2	D.	
10	. .	. .	. .	− 1 9.2	16 18 58.0	17.0	+ 22 34 24.2	− 33.3	D.	
11	. .	. .	. .	− 3 3.0	27 52 3.8	30.8	+ 11 1 4.6	− 30.5	D.	
12	. .	. .	. .	+ 3 37.3	27 58 44.1	30.9	+ 10 54 24.2	− 30.5	D.	
13	. .	. .	. .	+ 2 9.7	27 57 16.5	30.9	+ 10 55 51.8	− 30.5	D.	
14	. .	. .	. .	+ 3 27.8	27 58 34.6	30.9	+ 10 54 33.7	− 30.5	D.	
15	30.218	58.7	53.7	+ 3 3.7	41 38 10.5	51.7	− 2 45 23.0	− 27.5	D.	Very fine night.
16	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
17	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	Y.	For value of a revolution of the telescope micrometer screw.
18	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	Y.	
19	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	Y.	
20	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	Y.	
21	30.264	60.0	50.4	− 2 11.2	27 37 55.3	30.7	+ 11 15 13.2	− 31.6	Y.	
22	. .	. .	. .	+ 1 17.9	44 41 20.6	58.0	− 5 48 39.4	− 28.0	Y.	
23	. .	. .	. .	− 1 23.3	44 38 39.4	57.9	− 5 45 58.1	− 28.1	Y.	
24	30.272	59.2	50.1	− 13.7	67 19 53.7	2 19.8	− 28 28 34.3	− 24.3	Y.	
25	. .	. .	. .	+ 21.5	71 15 29.9	2 51.6	− 32 24 42.3	− 24.6	Y.	
26	. .	. .	. .	− 2 49.5	64 2 15.6	2 0.3	− 25 10 36.7	− 26.1	Y.	
27	. .	. .	. .	− 1 41.1	69 18 26.7	2 34.6	− 30 27 22.1	− 25.8	Y.	
28	30.282	58.8	48.9	− 50.5	64 4 14.6	2 0.6	25 12 36.0	− 27.0	Y.	
29	. .	. .	. .	+ 1 32.5	64 41 35.7	2 4.0	− 25 50 0.5	− 27.1	Y.	
30	. .	. .	. .	+ 3 32.7	64 43 35.9	2 4.2	− 25 52 0.9	− 27.2	Y.	
31	. .	. .	. .	+ 2 42.5	43 47 49.6	56.5	− 4 55 6.9	− 30.5	Y.	
32	. .	. .	. .	− 37.9	43 44 29.2	56.4	− 4 51 46.4	− 30.6	Y.	
33	. .	. .	. .	+ 2 4.1	19 47 7.5	21.2	+ 19 6 10.5	− 35.1	Y.	
34	30.290	57.1	48.5	+ 2 4.7	19 47 8.1	21.2	+ 19 6 9.9	− 35.1	Y.	
35	. .	. .	. .	− 58.8	66 54 5.2	2 17.5	− 28 2 43.5	− 28.4	Y.	
36	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	Y.	
37	. .	. .	. .	+ 47.4	12 55 52.6	13.3	+ 25 57 33.3	− 27.4	D.	
38	30.164	60.5	57.0	− 34.9	36 29 28.6	42.7	+ 2 23 27.9	− 20.3	D.	
39	. .	. .	. .	+ 2 12.3	9 42 19.1	9.9	+ 29 11 10.2	− 30.5	D.	
40	. .	. .	56.0	+ 52.8	62 30 59.6	1 50.8	− 23 39 11.2	− 14.9	D.	
41	. .	. .	. .	− 52.6	S. 32 4 14.2	36.3	+ 6 48 48.7	− 24.6	D.	
42	. .	. .	. .	+ 56.3	N. 4 48 53.5	4.9	+ 43 42 37.6	− 37.2	D.	
43	. .	. .	. .	− 2 21.9	S. 66 12 44.4	2 10.5	− 27 21 15.7	− 16.2	D.	
44	. .	. .	. .	− 1 39.4	28 3 27.9	30.9	+ 10 49 40.4	− 27.6	D.	
45	. .	. .	. .	+ 4 30.8	28 9 38.1	31.0	+ 10 43 30.1	− 27.8	D.	
46	30.165	59.5	55.8	− 3 38.2	67 16 30.3	2 17.3	− 28 25 8.4	− 17.7	D.	
47	. .	. .	. .	− 1 32.8	66 18 34.6	2 17.6	− 27 27 13.0	− 18.9	D.	
48	. .	. .	. .	− 5.2	66 20 2.2	2 11.3	− 27 28 34.3	− 18.9	D.	
49	. .	. .	. .	− 3 42.6	15 1 23.5	15.5	+ 23 52 0.2	− 33.9	D.	
50	. .	. .	. .	+ 2 18.7	2 2 24.7	2.1	+ 36 51 12.4	− 38.2	D.	
51	. .	. .	. .	+ 3 17.4	64 8 22.0	1 58.9	− 25 16 41.7	− 21.6	D.	
52	. .	. .	. .	− 40.4	64 4 24.2	1 58.6	− 25 12 43.6	− 21.8	D.	
53	. .	. .	. .	− 27.9	66 34 35.4	2 13.0	− 27 43 9.2	− 22.0	D.	
54	. .	. .	. .	+ 1 51.1	66 36 54.4	2 13.2	− 27 45 28.4	− 22.1	D.	
55	. .	. .	. .	+ 1 20.5	44 41 22.3	57.4	− 5 48 40.5	− 27.9	D.	
56	30.156	58.7	54.2	− 1 21.4	44 38 40.4	57.3	− 5 45 58.5	− 28.1	D.	
57	. .	. .	. .	− 54.9	41 9 7.7	50.8	− 2 16 19.3	− 29.5	D.	
58	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
59	30.136	58.6	51.2	− 18.2	67 24 46.5	2 19.4	− 28 33 26.7	− 28.4	Y.	
60	. .	. .	. .	+ 15.2	67 15 23.1	2 18.4	− 28 24 2.3	− 28.7	Y.	
61	. .	. .	. .	+ 22.7	61 20 28.8	1 46.5	− 22 28 36.1	− 29.3	Y.	
62	30.134	57.9	50.8	− 1 21.6	50 53 44.9	1 11.8	− 12 1 17.5	− 30.2	Y.	
63	. .	. .	. .	+ 2 5.3	66 52 12.1	2 15.9	− 28 0 48.8	− 29.1	Y.	
64	. .	. .	. .	+ 56.7	65 46 1.8	2 9.1	− 26 54 31.7	− 29.2	Y.	
65	30.132	57.2	50.5	− 1 28.8	53 58 35.5	1 20.2	− 15 6 16.5	− 29.7	Y.	
66	. .	. .	. .	− 2 32.2	S. 76 47 33.6	4 4.0	− 37 57 58.4	− 29.1	Y.	+0.″19 added to mean of A, B, C, D.

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.									MICROMETER.		
						A.			B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Corr'd.
						°	′	″	″	″	″	″	″	″	r.	r.	r.
1868. April 27	1	Anon. 13h. 52m. 33s.	8.0	3	IV-VI.	355	35	6.1	10.9	4.7	7.8	5.6	8.2	7.22	28.821	. .	[illegible]
	2	Anon. 13h. 53m. 34s.	7.5	3	V IX.	"	"	"	"	"	"	"	"	"	36.216	. .	[illegible]
	3	Nadir	. .	5	. .	100	0	3.0	6.9	0.2	5.9	6.0	11.9	5.65	29.332	. .	. .
30	4	14 Sextantis	6.0	3	V-IX.	312	40	7.1	2.6	0.7	4.9	5.2	7.0	4.58	33.250	+ 0.711	[illegible]
	5	Lacaille 4242 . .	6.5	3	III-VII.	355	0	5.0	2.7	1.2	6.5	2.1	4.1	3.60	30.712	. .	[illegible]
	6	44 Leonis . . .	6.0	2	V-VII.	309	25	6.0	2.8	59.5	2.9	5.3	7.1	3.93	27.472	. .	[illegible]
	7	Weisse X, 303 . .	7.5	2	II-VII.	"	"	"	"	"	"	"	"	"	26.470	. .	[illegible]
	8	Lacaille 4326 . .	7.5	3	IV-VI.	353	20	9.2	7.7	4.8	12.1	8.2	9.6	8.60	33.660	. .	[illegible]
	9	33 Sextantis. . . .	5.5	3	III-VII.	320	0	5.9	3.3	0.7	3.9	3.3	5.2	3.72	37.079	. .	[illegible]
	10	O. Arg. S. 10887 .	6.7	3	III-VII.	349	45	9.3	6.9	5.6	11.9	6.6	7.8	8.02	27.745	. .	[illegible]
	11	Anon. 10h. 48m. 0s. .	8.0	3	III-VII.	349	20	5.7	3.0	2.6	8.0	3.4	4.4	4.52	32.790	. .	[illegible]
	12	Lacaille 4567 . .	6.0	3	III-VII.	359	15	8.1	7.1	4.8	13.1	7.2	6.9	7.87	32.345	. .	[illegible]
	13	Lacaille 4599 . .	6.0	3	V-IX.	350	45	8.9	6.3	3.9	10.6	6.1	6.0	6.97	32.086	. .	[illegible]
	14	Anon. 11h. 8m. 20s. .	7.5	3	IV-VI.	345	30	8.0	4.9	2.4	6.0	4.1	5.7	5.18	34.637	. .	[illegible]
	15	Lacaille 4713 . .	7.0	3	III-VII.	353	40	6.0	4.8	1.9	6.9	3.6	5.1	4.72	31.403	. .	[illegible]
	16	Anon. 11h. 21m. 29s.	7.5	3	III-VII.	"	"	"	"	"	"	"	"	"	29.009	. .	[illegible]
	17	Lacaille 4979 . .	. .	3	III-VII.	352	45	8.7	5.6	3.2	9.8	4.8	7.0	6.52	27.813	. .	[illegible]
	18	B. A. C. 4088 . .	6.0	2	VII, IX.	"	"	"	"	"	"	"	"	"	25.015	. .	[illegible]
	19	Lacaille 5066 . .	6.0	3	IV-VI.	351	55	9.0	6.8	4.6	10.9	6.9	7.0	7.53	30.399	. .	[illegible]
	20	Lacaille 5073 . .	7.5	3	V-IX.	"	"	"	"	"	"	"	"	"	31.952	. .	[illegible]
	21	Lacaille 5109 . .	7.3	3	III-VII.	0	40	7.4	6.0	3.7	11.4	5.3	6.5	6.72	32.952	. .	[illegible]
	22	B. A. C. 4214 . .	5.0	3	III-VII.	341	50	8.8	5.4	4.2	8.8	6.3	6.0	6.58	29.304	. .	[illegible]
	23	B. A. C. 4243 . .	5.5	3	III-VII.	359	5	6.8	5.8	4.8	10.9	4.7	5.5	6.42	26.120	. .	[illegible]
	24	Lacaille 5261 . .	7.5	3	V-IX.	353	15	10.4	8.5	6.1	12.4	8.2	9.4	9.17	30.694	. .	[illegible]
	25	O. Arg. S. 12460 .	8.2	3	IV-VI.	344	0	8.1	5.7	3.6	10.1	6.5	7.4	6.90	31.125	. .	[illegible]
	26	O. Arg. S. 12573 .	6.7	3	III-VII.	342	5	9.4	7.1	5.8	9.9	7.5	6.9	7.77	31.251	. .	[illegible]
	27	B. A. C. 4378 . .	5.5	3	III-VII.	359	40	7.6	6.4	3.6	12.4	5.1	5.9	6.83	26.325	. .	[illegible]
	28	Lacaille 5428 . .	5.8	3	IV-VI.	344	45	7.9	5.1	3.9	7.8	5.6	7.1	6.23	33.819	. .	[illegible]
	29	Lacaille 5478 . .	6.0	3	III-VII.	346	30	9.4	6.8	6.7	10.9	7.4	8.2	8.23	30.262	. .	[illegible]
	30	*i* Virginis	5.5	3	III-VII.	330	55	8.7	6.4	4.3	9.9	6.4	8.7	7.40	31.831	. .	[illegible]
	31	Anon. 13h. 27m. 30s.	8.3	3	III-VII.	355	45	7.4	7.4	4.1	10.6	3.9	5.2	6.43	33.701	. .	[illegible]
	32	Lacaille 5649 . .	6.5	3	III-VII.	352	10	6.9	7.4	4.1	11.3	4.9	5.9	6.75	30.209	. .	[illegible]
	33	Lacaille 5680 . .	6.5	3	III-VII.	355	20	4.5	5.0	1.2	8.4	2.2	2.7	4.00	32.673	. .	[illegible]
	34	Lacaille 5754 . .	6.5	3	III-VII.	348	50	4.3	5.0	3.1	8.9	3.1	3.7	4.68	35.026	. .	[illegible]
	35	Lacaille 5798, (1st *) .	8.5	2	III, V, VI.	355	30	7.1	7.9	5.1	11.0	4.3	5.7	6.85	31.485	. .	[illegible]
	36	Lacaille 5798, (2d *) .	7.3	2	II-IX.	"	"	"	"	"	"	"	"	"	33.739	. .	[illegible]
	37	Lacaille 5842 . .	7.0	3	III-VII.	348	0	5.9	4.3	3.5	8.0	2.9	4.2	4.80	27.454	. .	[illegible]
	38	Nadir	. .	5	. .	100	0	2.9	3.4	58.3	8.8	3.7	7.0	4.02	29.297	. .	. .
May 1	39	4 Sextantis	. .	3	III-VII.	313	55	5.8	59.1	59.0	4.9	4.9	5.6	3.22	28.283	+ 0.691	[illegible]
	40	Lacaille 4095 . .	. .	3	III-VII.	354	5	8.0	2.8	2.0	9.0	4.0	4.2	5.00	26.840	. .	[illegible]
	41	Lacaille 4135 . .	. .	3	IV-VI.	358	10	8.0	3.2	3.8	12.0	4.0	3.0	5.67	29.742	. .	[illegible]
	42	Weisse X, 70 . .	. .	3	III-VII.	329	20	8.3	3.0	2.1	9.0	4.6	5.8	5.47	25.701	. .	[illegible]
	43	O. Arg. S. 10533 .	7.5	2	V, VII.	347	10	9.0	1.7	3.9	9.7	3.7	5.0	5.50	30.035	. .	[illegible]
	44	O. Arg. S. 10540 .	7.5	3	VI, VIII, IX.	"	"	"	"	"	"	"	"	"	29.886	. .	[illegible]
	45	Weisse X, 375 . .	. .	3	IV-VI.	308	5	9.1	2.1	1.9	6.9	6.2	7.7	5.65	32.426	. .	[illegible]
	46	Weisse X, 412 . .	. .	3	III, VII.	"	"	"	"	"	"	"	"	"	20.592	. .	[illegible]
	47	Lacaille 4406 . .	. .	3	III-VII.	344	15	8.0	1.2	2.0	7.8	3.7	3.2	4.32	32.436	. .	[illegible]
	48	B. A. C. 3726 . .	. .	3	IV-VI.	317	10	9.3	0.8	0.9	6.1	4.9	4.2	4.37	30.181	. .	[illegible]
	49	Weisse (2) X, 1017 .	. .	3	III-VII.	296	20	7.4	0.2	0.3	7.3	5.8	5.7	4.45	31.449	. .	[illegible]
	50	Weisse X, 1049 . .	. .	3	I-V.	305	25	7.5	0.0	0.0	7.0	5.7	5.0	4.20	34.591	. .	[illegible]
	51	Weisse X, 1060 . .	. .	3	V-IX.	"	"	"	"	"	"	"	"	"	23.084	. .	[illegible]
	52	Weisse XI, 137 . .	. .	3	IV-VI.	321	45	8.0	2.0	2.7	8.8	5.1	5.0	5.27	23.191	. .	[illegible]
	53	φ Leonis	. .	3	VII-IX.	"	"	"	"	"	"	"	"	"	22.154	. .	[illegible]
	54	B. A. C. 3909 .. .	. .	3	III-VII.	319	0	7.3	0.9	0.8	5.1	3.9	4.2	3.70	28.694	. .	[illegible]
	55	Weisse (2) XI, 556 .	. .	3	V-VII,	290	20	6.4	0.0	59.0	6.9	4.0	5.0	3.55	23.268	. .	[illegible]
	56	Rumker 3727 . .	. .	3	III-VII.	303	55	7.0	59.7	1.0	7.0	6.0	4.7	4.23	32.218	. .	[illegible]
	57	Anon. 11h. 42m. 44s.	. .	2	V, VII.	355	50	7.1	4.0	3.6	10.1	4.0	3.0	5.30	34.106	. .	[illegible]
	58	Anon. 11h. 44m. 1s. .	. .	3	IV-VI.	"	"	"	"	"	"	"	"	"	26.940	. .	[illegible]
	59	B. A. C. 4023 . .	. .	3	III-VII.	"	"	"	"	"	"	"	"	"	27.057	. .	[illegible]
	60	Nadir	. .	5	. .	100	0	7.2	3.8	0.1	11.7	5.9	8.4	6.18	29.386	. .	. .
8	61	[illegible] Ursæ Majoris . . .	. .	3	IV-VI.	275	20	7.0	5.2	3.3	14.8	7.0	6.0	7.22	30.751	+ 0.726	[illegible]
	62	B. A. C. 3531 . . .	. .	3	IV-VI.	252	40	6.2	3.6	4.5	17.0	5.7	6.0	7.17	29.348	. .	[illegible]
	63	B. A. C. 3596 . . .	. .	3	III-VII.	347	50	6.0	5.2	5.1	14.8	2.0	1.0	5.68	27.549	. .	[illegible]
	64	Lacaille 4358 . . .	. .	3	IV-VI.	357	40	6.9	6.9	4.9	17.0	3.1	oblit.	7.27	24.598	. .	[illegible]
	[illegible]	B. A. C. 3661 . . .	. .	3	III-VII.	286	30	7.9	4.0	3.0	14.0	4.9	5.1	6.48	28.854	. .	[illegible]
		Arg. S. 10[illegible]6 .	. .	3	III-VII.	345	0	8.1	5.9	5.2	13.1	5.0	2.8	6.68	31.345	. .	[illegible]
		m. 10h. 50m. 27s.	8.3	3	III-VII.	346	40	8.3	6.0	6.0	15.1	4.8	3.0	7.20	33.284	. .	[illegible]

Number.	Barometer.	THERM'S.		Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.							
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	+ 14.0	S. 75 35 21.2	3 43.6	− 36 45 25.6	− 29.1	Y.	
2	30.134	56.9	50.5	− 3 37.9	75 31 29.3	3 42.6	− 36 41 32.7	− 29.1	Y.	
3	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
4	29.746	69.2	72.2	− 2 3.9	32 38 0.6	35.4	+ 6 15 3.2	− 24.1	Y.	
5	. .	. .	. .	− 44.8	74 59 18.8	3 23.1	− 36 9 2.7	− 13.7	Y.	
6	. .	. .	. .	+ 56.9	29 26 0.8	31.3	+ 9 27 7.1	− 27.0	Y.	
7	. .	. .	. .	+ 1 28.4	29 26 32.3	31.3	+ 9 26 35.6	− 27.1	Y.	
8	. .	. .	. .	− 2 16.9	73 17 51.7	3 2.5	− 34 27 15.0	− 15.6	Y.	
9	29.754	68.8	69.5	− 4 3.9	39 55 59.8	46.5	− 1 3 7.1	− 25.2	Y.	
10	. .	. .	. .	+ 48.1	69 45 56.1	2 29.6	− 30 54 46.5	− 18.1	Y.	
11	. .	. .	. .	− 1 49.8	69 18 14.7	2 26.1	− 30 27 1.6	− 18.9	Y.	
12	. .	. .	. .	− 1 35.9	79 13 31.9	4 43.8	− 40 24 36.5	− 18.0	Y.	
13	29.770	68.2	67.7	− 1 28.0	70 43 38.9	2 38.0	− 31 52 37.7	− 19.9	Y.	
14	. .	. .	. .	− 2 47.4	65 27 17.7	2 1.6	− 26 35 40.1	− 21.7	Y.	
15	. .	. .	. .	− 1 6.4	73 38 58.3	3 7.9	− 34 48 27.0	− 20.7	Y.	
16	. .	. .	. .	+ 8.5	73 40 13.2	3 8.3	− 34 49 42.3	− 21.3	Y.	
17	29.794	67.5	64.3	+ 46.0	72 45 52.5	2 59.0	− 33 55 12.3	− 24.2	Y.	
18	. .	. .	. .	+ 2 13.1	72 47 19.6	2 59.4	− 33 56 39.8	− 24.7	Y.	
19	. .	. .	. .	− 34.8	71 54 32.7	2 50.5	− 33 3 44.0	− 25.1	Y.	
20	. .	. .	. .	− 1 23.8	71 53 43.7	2 50.4	− 33 2 54.9	− 25.2	Y.	
21	29.798	67.0	62.7	− 1 54.9	80 38 11.8	5 28.3	− 41 50 0.9	− 24.7	Y.	
22	. .	. .	. .	− 0.6	61 50 5.9	1 44.9	− 22 58 11.6	− 27.5	Y.	
23	. .	. .	. .	+ 1 38.9	79 6 45.3	4 44.2	− 40 17 50.3	− 25.7	Y.	
24	. .	. .	. .	− 44.4	73 14 24.7	3 4.7	− 34 23 50.2	− 26.7	Y.	
25	29.796	66.2	63.3	− 57.5	63 59 9.4	1 54.9	− 25 7 25.1	− 28.0	Y.	
26	. .	. .	. .	− 1 1.5	62 4 6.2	1 46.0	− 23 12 13.0	− 28.5	Y.	
27	. .	. .	. .	+ 1 32.5	79 41 39.3	5 0.2	− 40 53 0.3	− 27.2	Y.	
28	. .	. .	. .	− 2 21.8	64 42 44.4	1 59.0	− 25 51 4.2	− 28.5	Y.	
29	29.804	65.4	61.1	− 30.6	66 29 37.6	2 9.3	− 27 38 7.7	− 28.5	Y.	
30	. .	. .	. .	− 1 19.6	50 53 47.8	1 9.6	− 12 1 18.2	− 30.0	Y.	
31	. .	. .	. .	− 2 18.3	75 42 48.1	3 38.6	− 36 52 47.5	− 28.3	Y.	
32	. .	. .	. .	− 29.0	72 9 37.7	2 54.0	− 33 18 52.5	− 28.5	Y.	
33	29.814	64.6	60.0	− 1 46.2	75 18 17.8	3 32.7	− 36 28 11.3	− 28.5	Y.	
34	. .	. .	. .	− 2 59.8	68 47 4.8	2 25.1	− 29 55 50.7	− 28.7	Y.	
35	. .	. .	. .	− 2 20.2	75 27 46.6	3 35.1	− 36 37 42.5	− 28.6	Y.	
36	. .	. .	. .	− 1 8.9	75 28 57.9	3 35.4	− 36 38 54.1	− 28.6	Y.	
37	29.818	64.0	59.8	+ 57.2	68 1 2.0	2 19.6	− 29 9 42.4	− 28.6	Y.	
38	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
39	30.037	68.0	65.7	+ 32.1	33 55 35.3	38.0	+ 4 57 25.9	− 21.9	D.	
40	. .	. .	. .	+ 1 17.0	74 6 22.0	3 15.8	− 35 15 58.6	− 11.5	D.	
41	. .	. .	65.0	− 13.6	78 9 52.0	4 23.1	− 39 20 35.9	− 11.4	D.	
42	. .	. .	. .	+ 1 52.9	49 21 58.3	1 5.9	− 10 29 25.0	− 19.4	D.	
43	. .	. .	. .	− 22.9	67 9 42.6	2 13.7	− 28 18 17.1	− 15.5	D.	
44	. .	. .	. .	− 18.5	67 9 47.0	2 13.7	− 28 18 21.5	− 15.5	D.	
45	. .	. .	. .	− 1 37.5	28 3 28.1	30.2	+ 10 49 40.9	− 28.0	D.	Whole rev. recorded 33.
46	. .	. .	. .	+ 4 32.9	28 9 38.5	30.4	+ 10 43 30.3	− 28.1	D.	
47	30.055	67.0	63.2	− 1 38.0	64 13 26.3	1 57.1	− 25 21 44.2	− 18.7	D.	
48	. .	. .	. .	− 27.3	37 9 37.0	43.1	+ 1 43 19.1	− 27.1	D.	Hazy.
49	. .	. .	. .	− 1 6.9	16 18 57.5	16.7	+ 22 34 25.0	− 34.1	D.	
50	. .	. .	. .	− 2 45.2	25 22 19.0	27.0	+ 13 30 53.2	− 31.8	D.	
51	. .	. .	. .	+ 3 15.0	25 28 19.2	27.1	+ 13 24 52.9	− 31.8	D.	
52	. .	. .	. .	+ 3 11.5	41 48 16.7	51.0	− 2 55 28.5	− 27.6	D.	
53	. .	. .	. .	+ 3 43.9	41 48 49.1	51.0	− 2 56 0.9	− 27.6	D.	
54	30.072	66.2	61.1	+ 19.2	39 0 22.9	46.2	− 0 7 29.9	− 29.3	D.	
55	. .	. .	. .	+ 3 9.2	10 23 12.7	10.5	+ 28 30 16.0	− 37.8	D.	
56	. .	. .	. .	− 1 31.0	23 53 33.2	25.3	+ 14 59 40.7	− 34.2	D.	
57	. .	. .	. .	− 2 30.3	75 47 35.0	3 41.0	− 36 57 36.8	− 22.9	D.	
58	. .	. .	. .	+ 1 14.1	75 51 19.4	3 42.0	− 37 1 22.2	− 23.0	D.	
59	30.063	66.0	61.9	+ 1 10.2	S. 75 51 15.5	3 42.0	− 37 1 18.3	− 23.2	D.	
60	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
61	. .	. .	. .	− 46.1	N. 4 40 38.9	4.7	+ 43 34 22.8	− 38.2	D.	
62	29.874	57.5	52.2	− 2.1	N. 27 19 55.0	29.9	+ 66 14 4.1	− 44.8	D.	
63	. .	. .	. .	+ 53.8	S. 67 50 59.4	2 21.0	− 28 59 41.2	− 16.3	D.	
64	. .	. .	51.8	+ 2 26.3	77 42 33.5	4 19.1	− 38 53 13.4	− 14.8	D.	− 1″.65 added to mean of A, B, C, D.
65	. .	. .	. .	+ 13.4	6 30 19.8	6.6	+ 32 23 12.8	− 36.9	D.	
66	. .	. .	. .	− 1 5.0	64 59 1.6	2 3.4	− 26 7 25.8	− 19.1	D.	
67	. .	. .	. .	− 2 5.7	S. 66 38 1.5	2 13.1	− 27 46 35.4	− 19.5	D.	

DATE.	Number.		OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.							MICROMETER.		
							A.	B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Co
1868.							° ′ ″	″	″	″	″	″	″	r.	r.	r.
May 8	1		Weisse (2) X, 1152	. .	3	IV-VI.	282 0 8.4	4.0	5.0	14.7	6.3	5.8	7.37	24.882	. .	[illegible]
	2		Lacaille 4646	. .	3	III-VII.	344 35 8.8	6.0	5.8	15.2	6.0	3.0	7.47	26.091	. .	[illegible]
	3		Weisse (2) XI, 340	. .	3	III-VII.	297 45 8.9	5.4	3.9	oblit.	6.2	3.8	7.44	27.777	. .	[illegible]
	4		Weisse (2) XI, 509	. .	3	III-VII.	" " "	"	"	"	"	"	"	33.090	. .	[illegible]
	5		Lalande 22308	. .	3	III-VII.	303 40 9.3	6.2	5.9	15.3	8.2	5.0	8.32	32.678	. .	[illegible]
	6	65	Ursæ Majoris	. .	4	II, III, VII, VIII	271 40 7.0	5.2	5.0	16.2	6.1	6.1	7.60	27.541	. .	[illegible]
	7		B. A. C. 4028	. .	3	IV-VI.	" " "	"	"	"	"	"	"	26.719	. .	[illegible]
	8		Nadir	. .	5	. .	100 0 7.2	8.0	3.0	17.1	7.1	7.0	8.23	29.417	. .	.
	9	12	Comæ	. .	3	III-VII.	292 20 7.0	5.0	3.7	12.9	6.0	4.1	6.45	31.951	. .	[illegible]
11	10	33	Leonis Minoris	. .	3	V-VII.	285 50 8.2	2.0	2.0	10.9	6.0	6.0	5.85	29.178	+ 0.653	[illegible]
	11	φ^3	Hydræ	. .	3	III-VII.	335 5 8.8	4.8	2.8	9.8	6.0	4.0	6.03	31.318	. .	[illegible]
	12	43	Leonis Minoris	. .	3	III-VII.	288 45 8.1	2.8	1.3	10.1	7.0	6.0	5.88	26.306	. .	[illegible]
	13		O. Arg. S. 11020	. .	3	III-VII.	342 20 9.0	5.0	5.1	12.3	6.0	2.8	6.70	26.149	. .	[illegible]
	14		O. Arg. N. 11496	. .	3	IV-VI.	259 15 6.2	1.0	2.8	14.0	6.5	8.0	6.42	25.109	. .	[illegible]
	15		O. Arg. N. 11590	. .	3	V-VII.	249 0 7.2	2.0	6.0	15.8	8.0	7.1	7.68	33.899	. .	[illegible]
	16		O. Arg. N. 11619	. .	3	VII-IX.	" " "	"	"	"	"	"	"	30.601	. .	[illegible]
	17		B. A. C. 3901	. .	3	IV-VI.	319 50 7.0	1.9	1.1	7.2	3.1	1.9	3.70	26.745	. .	[illegible]
	18		Weisse XI, 488	. .	3	V-VII.	332 35 7.0	3.1	2.0	10.0	5.0	1.0	4.68	26.600	. .	[illegible]
	19		Weisse XI, 592	. .	2	IV, V.	317 10 7.0	1.9	1.0	7.5	4.0	2.3	3.95	25.561	. .	[illegible]
	20		Lamont 3427	. .	2	VII, VIII.	" " "	"	"	"	"	"	"	30.539	. .	[illegible]
	21		B. A. C. 4010	. .	3	III-VII.	280 10 6.9	3.0	1.5	11.1	6.0	5.0	5.58	22.445	. .	[illegible]
	22		Weisse (2) XI, 937	. .	3	V-VII.	282 50 5.8	0.5	1.0	9.8	5.0	4.8	4.48	31.363	. .	[illegible]
	23		Anon. 11h. 56m. 0s.	. .	3	III-VII.	328 50 5.0	1.1	0.0	6.7	1.1	58.8	2.12	34.095	. .	[illegible]
	24		Weisse XI, 1033	. .	3	III-VII.	322 30 6.1	1.8	1.0	8.3	4.0	1.0	3.70	31.212	. .	[illegible]
	25		O. Arg. S. 12057	. .	3	III-VII.	342 10 6.2	2.5	3.0	10.0	4.0	0.1	4.30	31.705	. .	[illegible]
	26		Weisse XII, 252	9.2	3	III-VII.	311 20 7.0	3.3	1.9	9.0	4.5	3.0	4.78	32.306	. .	[illegible]
	27		Anon. 12h. 23m. 1s.	7.0	3	IV-VI.	356 30 7.2	5.0	4.0	13.8	4.0	1.0	5.83	36.219	. .	[illegible]
	28		Weisse (2) XI, 636	. .	3	III-VII.	285 5 7.0	1.1	2.7	11.9	6.1	5.4	5.70	23.135	. .	[illegible]
	29		Weisse XII, 626	. .	3	I-V.	304 45 7.8	3.0	2.0	12.0	7.2	5.0	6.17	22.103	. .	[illegible]
	30		Weisse XII, 646	. .	3	IV-VI.	" " "	"	"	"	"	"	"	29.554	. .	[illegible]
	31		Weisse XII, 685	. .	3	III-VII.	" " "	"	"	"	"	"	"	30.511	. .	[illegible]
	32		Weisse (2) XII, 1066	7.0	3	III-VII.	286 25 7.7	2.0	2.1	11.3	6.0	5.9	5.83	31.463	. .	[illegible]
	33		Nadir	. .	5	. .	100 0 7.0	5.7	1.6	15.0	6.7	7.7	7.28	29.460	. .	. .
16	34		Lacaille 4758	6.5	3	III-VII.	346 10 7.8	7.1	5.1	10.1	4.8	5.1	6.67	29.447	+ 0.658	[illegible]
	35		Anon. 11h. 30m. 51s.	8.2	3	III-VII.	353 10 9.6	9.3	6.1	14.7	7.3	8.0	9.17	27.082	. .	[illegible]
	36	ζ	Crateris	5.5	3	III-VII.	336 30 8.1	6.9	4.8	10.5	6.2	6.4	7.15	30.543	. .	[illegible]
	37		Lacaille 4907	7.0	3	III-VII.	345 15 5.2	4.2	1.9	7.1	3.1	2.7	4.03	33.942	. .	[illegible]
	38		O. Arg. N. 12195	8.3	1	V.	255 55 3.4	2.1	2.1	12.8	3.8	8.7	5.48	27.764	. .	[illegible]
	39		O. Arg. S. 11908	6.5	3	III-VII.	341 55 7.8	6.8	4.7	11.4	7.2	5.2	7.18	31.262	. .	[illegible]
	40		Lacaille 5065	6.0	3	III-VII.	357 0 6.8	6.9	4.2	13.0	4.8	oblit.	6.87	26.403	. .	[illegible]
	41	3	Canum Venaticorum	5.5	3	IV-VI.	269 10 4.9	3.5	0.8	10.7	6.2	7.1	5.53	28.193	. .	[illegible]
	42		Nadir..	. .	5	. .	100 0 3.1	4.1	58.8	9.5	3.9	6.0	4.23	29.357	. .	. .
	43		Lacaille 5379	7.5	3	III-VII.	342 40 5.3	4.3	2.0	7.9	3.6	2.6	4.28	28.397	. .	[illegible]
	44		Lacaille 5464	6.7	3	III-VII.	342 25 4.9	4.1	2.9	8.3	3.2	2.7	4.35	25.397	. .	[illegible]
	45		Lalande 24841	. .	3	V-IX.	278 45 6.7	4.8	1.9	11.0	5.9	9.2	6.58	26.738	. .	[illegible]
	46		B. A. C. 4548	5.8	3	III-VII.	347 45 3.4	3.0	1.3	8.9	0.7	1.8	3.18	30.091	. .	30.755
	47	*i*	Centauri	5.0	3	III-VII.	351 15 7.8	7.5	4.9	13.6	5.4	5.8	7.50	32.315	. .	[illegible]
	48		Rumker 4483	. .	3	V-IX.	306 40 6.4	5.1	2.3	9.6	4.8	6.9	5.85	31.232	. .	[illegible]
	49		Brisbane 4727	7.0	3	III-VII.	355 40 5.3	7.1	2.9	11.1	2.1	2.6	5.18	29.783	. .	[illegible]
	50		Lacaille 5837	6.7	3	III-VII.	348 50 6.0	8.0	4.9	12.2	4.0	4.1	6.53	27.662	. .	[illegible]
	51	ι	Virginis	5.6	3	III-VII.	324 15 5.8	4.9	1.2	8.9	4.4	4.9	5.02	29.572	. .	30.231
	52		Weisse XIV, 173	7.5	3	III-VII.	" " "	"	"	"	"	"	"	30.684	. .	[illegible]
	53		Anon. 14h. 20m. 43s.	8.5	3	III-VII.	345 5 6.8	6.8	3.4	10.3	3.2	4.0	5.75	25.845	. .	[illegible]
	54		Anon. 14h. 28m. 52s.	8.3	3	III-VII.	353 5 6.4	6.6	4.7	12.5	3.9	4.9	6.50	32.054	. .	[illegible]
	55		Lacaille 6064	7.2	3	III-VII.	348 30 5.8	6.2	4.0	11.9	3.2	4.0	5.85	29.741	. .	[illegible]
	56	58	Hydræ	5.5	3	III-VII.	346 15 7.2	6.9	5.5	11.5	4.4	5.1	6.77	27.458	. .	[illegible]
	57		Lacaille 6157	7.0	3	IV-VI.	351 10 7.3	6.8	6.2	12.9	5.2	4.9	7.22	31.754	. .	32.414
	58		Lacaille 6164	7.7	2	I, IX.	" " "	"	"	"	"	"	"	31.935	. .	32.624
	59		Lacaille 6221	6.5	3	V-IX.	354 35 6.0	7.7	4.8	12.1	4.4	4.7	6.62	28.979	. .	[illegible]
18	60		O. Arg. S. 11318	6.5	3	III-VII.	346 30 7.1	5.9	5.0	10.9	4.2	5.0	6.35	32.599	+ 0.662	[illegible]
	61		B. A. C. 3911	6.0	2	IV, VI.	310 35 4.5	3.9	0.5	7.9	3.8	4.1	4.12	32.218	. .	[illegible]
	62		Weisse XI, 495	8.5	3	III-VII.	310 50 7.4	6.3	2.7	9.1	5.2	5.7	6.07	32.400	. .	[illegible]
	63		B. A. C. 3974	5.5	3	III-VII.	355 20 3.8	4.1	0.9	8.1	59.8	0.1	2.80	33.555	. .	[illegible]
	64		Weisse XI, 758	6.5	3	IV-VI.	326 10 7.6	5.8	3.2	9.5	6.1	5.4	6.27	32.892	. .	[illegible]
	65		Lacaille 4955	7.0	3	V-IX.	345 50 7.4	6.7	4.6	10.5	4.1	4.4	6.28	31.869	. .	[illegible]
	66		O. Arg. S. 11920	6.0	3	III-VII.	342 10 6.4	6.5	4.9	11.3	4.4	3.7	6.20	37.144	. .	37.810
	67		O. Arg. S. 11995	8.0	3	III-VII.	349 25 6.8	7.4	6.0	14.2	4.8	4.3	7.25	28.280	. .	[illegible]
	68		Lacaille 5134	7.0	3	III-VII.	357 0 2.9	4.5	2.5	11.1	0.5	oblit.	3.68	27.904	. .	28.574
	69		B. A. C. 4241	6.8	2	I, IX.	299 45 7.4	6.6	3.1	11.1	5.0	7.1	6.72	25.568	. .	26.213

Number.	Barometer.	THERM'S.		Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.							
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	+ 2 17.5	S. 2 2 24.8	2.1	+ 36 51 12.3	— 39.8	D.	
2	29.888	56.5	51.0	+ 1 39.5	64 36 46.9	2 1.5	— 25 45 9.2	— 21.4	D.	
3	. .	. .	. .	+ 47.0	17 45 54.4	18.6	+ 21 7 26.2	— 36.1	D.	+ 1″.36 added to mean of A, B, E, F.
4	. .	. .	. .	— 1 59.3	17 43 8.1	18.5	+ 21 10 12.6	— 36.5	D.	Cloudy.
5	. .	. .	. .	— 1 46.5	S. 23 38 21.8	25.4	+ 15 14 52.0	— 35.2	D.	
6	. .	. .	. .	+ 55.0	N. 8 18 57.4	8.5	+ 47 12 45.1	— 44.5	D.	
7	. .	. .	. .	+ 1 20.1	N. 8 18 32.3	8.5	+ 47 12 20.0	— 44.5	D.	
8	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
9	29.912	55.0	48.2	— 1 23.6	S. 12 18 42.8	12.7	+ 26 34 43.7	— 39.0	D.	Barometer and thermometers read at 12h. 24m.
10	. .	. .	. .	+ 5.4	5 50 11.2	5.9	+ 33 3 22.1	— 36.5	D.	
11	30.218	62.0	59.1	— 1 1.8	55 4 4.2	1 22.3	— 16 11 47.3	— 20.7	D.	
12	. .	. .	. .	+ 1 35.4	8 46 41.2	8.9	+ 30 6 49.1	— 36.9	D.	
13	. .	. .	58.5	+ 1 39.9	S. 62 21 46.6	1 49.7	— 23 29 57.1	— 20.5	D.	
14	. .	. .	. .	+ 2 12.8	N. 20 42 40.8	21.9	+ 59 36 41.9	— 46.8	D.	
15	. .	. .	. .	— 2 22.0	31 2 14.4	34.8	+ 69 56 28.4	— 49.2	D.	
16	. .	. .	. .	— 36.6	N. 31 0 29.0	34.7	+ 69 54 42.9	— 49.3	D.	
17	30.231	61.2	56.9	+ 1 21.4	S. 39 51 25.1	48.3	— 0 58 34.2	— 29.3	D.	
18	. .	. .	. .	+ 1 25.9	52 36 30.5	1 15.7	— 13 44 7.0	— 26.1	D.	
19	. .	. .	. .	+ 1 58.5	37 12 2.4	44.0	+ 1 40 52.8	— 31.0	D.	
20	. .	. .	. .	— 37.3	37 9 26.6	43.9	+ 1 43 28.7	— 31.0	D.	
21	. .	. .	. .	+ 3 36.3	0 13 41.8	0.2	+ 38 39 57.2	— 42.6	D.	
22	. .	. .	. .	— 1 3.0	2 49 1.4	2.9	+ 36 4 34.9	— 41.9	D.	
23	. .	. .	. .	— 2 28.7	48 47 33.4	1 6.2	— 9 55 0.4	— 28.7	D.	
24	30.242	60.8	55.9	— 58.4	42 29 5.3	53.1	— 3 36 19.2	— 30.6	D.	
25	. .	. .	. .	— 1 14.0	68 2 50.3	1 49.4	— 23 17 0.5	— 26.3	D.	
26	. .	. .	. .	— 1 32.5	31 18 32.2	35.3	+ 7 34 31.7	— 34.1	D.	
27	30.236	60.0	55.0	— 3 35.2	76 26 30.6	3 56.3	— 37 36 47.7	— 24.3	D.	
28	. .	. .	. .	+ 3 14.7	5 8 20.4	5.2	+ 33 45 13.6	— 41.2	D.	
29	. .	. .	. .	+ 3 46.9	24 48 53.0	26.9	+ 14 4 19.3	— 36.0	D.	
30	. .	. .	. .	— 6.4	24 44 59.7	26.9	+ 14 8 12.6	— 36.0	D.	
31	. .	. .	. .	— 36.3	24 44 29.8	26.9	+ 14 8 42.5	— 36.0	D.	
32	30.228	59.0	52.4	— 1 6.0	6 23 59.8	6.5	+ 32 29 32.9	— 40.2	D.	
33	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
34	29.890	65.1	63.7	— 3.4	66 10 3.2	2 7.1	— 27 18 31.1	— 22.1	Y.	
35	. .	. .	. .	+ 1 10.5	73 11 19.6	3 4.6	— 34 20 45.0	— 21.1	Y.	
36	. .	. .	. .	— 37.7	56 29 29.4	1 25.2	— 17 37 15.4	— 25.7	Y.	
37	. .	. .	. .	— 2 24.2	S. 65 12 39.8	2 1.8	— 26 21 2.4	— 23.9	Y.	
38	29.890	64.8	62.4	+ 49.4	N. 24 4 5.2	25.3	+ 62 58 9.7	— 49.5	Y.	
39	. .	. .	. .	— 1 0.2	S. 61 54 6.9	1 45.7	— 23 2 13.4	— 25.6	Y.	
40	. .	. .	. .	+ 1 31.8	S. 77 1 38.6	4 0.7	— 38 12 0.1	— 22.8	Y.	— 0″.85 added to mean of A, B, C, D.
41	29.900	64.5	61.6	+ 36.1	N. 10 49 18.4	10.8	+ 49 43 8.4	— 46.4	Y.	Barometer and thermometers read at 12h. 21m.
42	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
43	29.896	64.2	62.0	+ 29.4	S. 62 40 33.6	1 49.3	— 23 48 43.7	— 27.6	Y.	
44	. .	. .	. .	+ 2 3.3	S. 62 27 7.6	1 48.2	— 23 35 16.6	— 27.8	Y.	
45	. .	. .	. .	+ 1 22.1	N. 1 13 31.4	1.2	+ 40 7 11.8	— 41.8	Y.	Through clouds.
46	29.890	64.2	61.2	— 23.6	S. 67 44 39.5	2 17.7	— 28 53 18.0	— 27.2	Y.	
47	. .	. .	. .	— 1 33.3	71 13 34.2	2 45.3	— 32 22 40.3	— 26.7	Y.	
48	. .	. .	. .	— 59.0	26 39 6.8	28.5	+ 12 14 3.9	— 34.2	Y.	
49	. .	. .	. .	— 14.0	75 39 51.1	3 38.4	— 36 49 50.3	— 26.3	Y.	
50	. .	. .	. .	+ 52.4	68 50 58.9	2 25.7	— 29 59 45.4	— 26.9	Y.	
51	. .	. .	. .	— 7.2	44 14 57.8	55.3	— 5 22 13.9	— 29.8	Y.	
52	29.882	63.8	60.2	— 42.0	44 14 23.0	55.3	— 5 21 39.1	— 29.7	Y.	
53	. .	. .	. .	+ 1 49.3	65 6 55.0	2 2.0	— 26 15 17.8	— 26.9	Y.	
54	. .	. .	. .	— 1 25.1	73 3 41.4	3 4.6	— 34 13 6.8	— 26.1	Y.	
55	29.880	63.3	59.2	— 12.7	68 29 53.1	2 23.5	— 29 38 37.4	— 26.3	Y.	
56	. .	. .	. .	+ 58.8	66 16 5.5	2 8.8	— 27 24 35.1	— 26.1	Y.	
57	. .	. .	. .	— 1 15.6	71 8 51.6	2 45.3	— 32 17 57.7	— 25.6	Y.	
58	. .	. .	. .	— 1 22.1	71 8 45.1	2 45.3	— 32 17 51.2	— 25.6	Y.	
59	. .	. .	. .	+ 10.9	74 35 17.5	3 23.8	— 35 45 2.1	— 25.2	Y.	
60	29.844	64.7	59.7	— 1 42.2	66 28 24.1	2 9.7	— 27 36 54.6	— 21.4	Y.	
61	. .	. .	. .	— 1 30.2	30 33 33.9	33.6	+ 8 19 31.7	— 33.0	Y.	
62	. .	. .	. .	— 1 35.8	30 48 30.2	33.9	+ 8 4 35.1	— 33.3	Y.	
63	29.846	63.8	58.6	— 2 12.3	75 17 50.5	3 33.5	— 36 27 44.8	— 21.0	Y.	
64	. .	. .	. .	— 1 51.2	46 8 15.0	59.2	— 7 15 35.0	— 29.2	Y.	
65	. .	. .	. .	— 1 19.6	65 48 46.6	2 6.2	— 26 57 13.6	— 24.2	Y.	
66	. .	. .	. .	— 4 4.5	62 6 1.7	1 47.3	— 23 14 9.8	— 25.6	Y.	
67	29.858	63.0	57.7	+ 32.9	69 25 40.1	2 30.8	— 30 34 31.7	— 24.2	Y.	
68	. .	. .	. .	+ 44.7	77 0 48.3	4 2.5	— 38 11 11.6	— 23.3	Y.	—1″.57 added to mean of A, B, C, D.
69	. .	. .	. .	+ 1 58.5	S. 19 47 5.2	20.6	+ 19 6 13.4	— 38.3	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.									MICROMETER.		
						A.			B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Corr
						°	'	"	"	"	"	"	"	"	r.	r.	r.
1868. May 18	1	24 Comæ	5.8	3	III–VII.	299	45	7.4	6.6	3.1	11.1	5.0	7.1	6.72	25.526	. .	[illegible]
	2	Lacaille 5252	7.3	3	III–VII.	356	0	4.5	6.2	3.6	11.7	1.2	1.8	4.83	27.875	. .	[illegible]
	3	Weisse XII, 722	8.5	3	III–VII.	331	15	5.5	5.2	3.6	9.3	2.7	2.7	4.83	33.124	. .	[illegible]
	4	O. Arg. S. 12523	8.5	3	IV–VI.	345	35	9.3	8.3	6.9	12.5	6.2	5.1	8.05	31.571	. .	[illegible]
	5	O. Arg. S. 12529	8.0	1	V.	"	"	"	"	"	"	"	"	"	37.206	. .	[illegible]
	6	O. Arg. S. 12533	7.0	2	VII, IX.	"	"	"	"	"	"	"	"	"	35.691	. .	[illegible]
	7	O. Arg. S. 12620	8.3	3	III–VII.	344	50	3.6	2.8	1.3	7.1	0.0	0.9	2.62	28.765	. .	[illegible]
	8	Nadir	. .	5	. .	100	0	4.2	6.8	0.7	13.7	4.9	7.0	6.22	29.416	. .	.
21	9	58 Ursæ Majoris	. .	3	IV–VI.	275	0	4.2	59.0	59.8	9.0	4.0	6.0	3.67	29.870	+ 0.639	[illegible]
	10	ζ Crateris	. .	3	III–VII.	336	30	4.2	58.0	58.0	3.9	0.0	0.0	0.68	30.320	. .	[illegible]
	11	B. A. C. 4010	. .	3	III–VII.	280	15	7.8	3.0	1.1	9.1	8.0	7.5	6.08	32.052	. .	[illegible]
	12	B. A. C. 4042	. .	3	IV–VI.	344	5	8.0	2.1	1.7	9.0	4.2	3.5	4.75	34.535	. .	[illegible]
	13	Lacaille 5016	. .	2	IV, V.	356	45	8.0	3.0	3.0	11.1	4.0	3.0	5.35	26.708	. .	[illegible]
	14	Groombridge 1860	. .	3	1–5.	234	40	8.9	1.1	5.1	13.2	5.0	8.9	7.03	29.283	. .	29.921
	15	O. Arg. S. 12116	7.0	3	IV–VI.	342	25	8.1	1.9	2.8	8.3	4.2	3.0	4.72	34.665	. .	[illegible]
	16	O. Arg. S. 12134	9.0	3	III–VII.	"	"	"	"	"	"	"	"	"	33.700	. .	34.344
	17	Lacaille 5191	. .	3	III–V.	350	40	9.0	3.1	3.0	10.3	4.8	3.0	5.53	30.544	. .	[illegible]
	18	Lacaille 5193	. .	3	V–VII.	"	"	"	"	"	"	"	"	"	38.458	. .	[illegible]
	19	Anon. 12h. 26m. 31s.	. .	1	VI.	"	"	"	"	"	"	"	"	"	39.620	. .	[illegible]
	20	Anon. 12h. 27m. 7s.	. .	3	VI–VIII.	"	"	"	"	"	"	"	"	"	35.689	. .	[illegible]
	21	Lacaille 5254	. .	3	III–VII.	358	20	9.0	6.0	5.0	15.1	6.0	3.4	7.42	35.932	. .	[illegible]
	22	O. Arg. S. 12588	. .	3	III–VII.	349	0	8.8	5.1	5.0	12.9	6.0	3.1	6.82	32.111	. .	[illegible]
	23	41 Comæ	. .	3	IV–VI.	290	30	7.0	1.9	0.0	8.3	4.9	5.0	4.52	22.955	. .	[illegible]
	24	Lalande 24624	. .	3	III–VII.	323	45	8.0	2.0	1.0	9.8	4.0	5.1	4.98	29.010	. .	[illegible]
	25	Lacaille 5514	. .	3	III–VII.	351	20	8.2	3.1	2.1	13.0	3.0	3.6	5.50	27.651	. .	[illegible]
	26	Lamont 4065	. .	3	IV–VI.	320	30	9.3	3.8	1.0	10.1	5.0	6.3	5.92	32.506	. .	[illegible]
	27	Lamont 4068	. .	2	VI, VIII.	"	"	"	"	"	"	"	"	"	33.878	. .	[illegible]
	28	Lamont 4071	. .	3	VII–IX.	"	"	"	"	"	"	"	"	"	26.322	. .	[illegible]
	29	Weisse (2) XIII, 777	. .	3	I–V.	296	20	9.9	4.0	0.3	12.3	6.3	8.5	6.88	21.304	. .	[illegible]
	30	Weisse (2) XIII, 782	. .	3	VI, VII, IX.	"	"	"	"	"	"	"	"	"	27.161	. .	[illegible]
	31	Lacaille 5763	. .	3	III–VII.	345	50	7.2	2.1	1.0	10.1	2.0	4.1	4.42	27.422	. .	[illegible]
	32	O. Arg. S. 13349	. .	3	III–VII.	346	50	6.1	1.9	1.9	10.0	0.1	3.8	3.97	30.699	. .	[illegible]
	33	Lacaille 5838	. .	3	III, V, IX.	348	20	6.9	3.0	1.8	12.0	0.2	3.1	4.50	31.211	. .	[illegible]
	34	Nadir	. .	5	. .	100	0	7.0	4.1	59.1	13.2	5.0	8.6	6.17	29.438	. .	
22	35	B. A. C. 3928	5.5	3	III–VII.	350	0	3.6	0.0	57.6	5.8	57.9	2.0	1.15	31.147	+ 0.628	[illegible]
	36	B. A. C. 3963	6.0	3	III–VII.	352	50	7.9	6.9	1.9	12.6	3.8	7.2	6.72	26.148	. .	[illegible]
	37	Lacaille 4881	8.0	3	III–VII.	346	5	5.2	2.6	59.2	6.5	0.3	3.7	2.92	28.160	. .	[illegible]
	38	B. A. C. 4015	6.0	3	III–VII.	352	0	5.4	4.8	0.7	8.4	1.7	4.6	4.27	26.557	. .	[illegible]
	39	Lacaille 4967	7.0	3	III–VII.	348	10	5.9	4.7	1.9	9.1	0.3	5.8	4.62	27.247	. .	[illegible]
	40	Anon. 11. 58m. 28s.	8.0	3	III–VII.	352	20	9.4	7.9	3.5	14.1	4.8	8.1	7.97	30.577	. .	[illegible]
	41	O. Arg. S. 11995	8.5	3	III–VII.	349	25	7.1	5.4	2.9	10.7	2.8	5.3	5.70	28.201	. .	[illegible]
	42	Lacaille 5097	8.3	3	III–VII.	350	45	9.7	7.7	4.9	14.1	5.7	8.3	8.40	34.200	. .	[illegible]
	43	O. Arg. S. 12161	8.0	3	III–VII.	345	20	7.6	6.2	2.1	9.5	3.5	6.4	5.88	31.574	. .	[illegible]
	44	Lacaille 5192	7.6	3	III–VII.	345	40	8.1	4.9	2.3	8.0	2.2	6.1	5.27	25.547	. .	[illegible]
	45	d^2 Virginis	5.5	3	III–VII.	310	30	7.4	4.4	0.5	6.8	3.8	7.1	5.00	30.592	. .	[illegible]
	46	δ Virginis	5.5	3	III–VII.	314	45	10.6	7.2	3.6	10.8	7.1	11.4	8.45	27.356	. .	[illegible]
	47	41 Comæ	5.5	3	III–VII.	290	35	7.9	5.7	1.9	10.1	5.1	10.9	6.93	32.587	. .	[illegible]
	48	B. A. C. 4431	6.5	3	III–VII.	316	45	4.0	0.2	57.1	4.3	0.5	4.5	1.77	32.249	. .	[illegible]
	49	B. A. C. 4462	7.0	3	III–VII.	313	20	6.4	3.2	0.0	7.4	5.1	8.0	5.02	26.026	. .	[illegible]
	50	69 Virginis	5.5	3	III–VII.	334	10	7.3	4.6	0.3	9.2	2.9	6.3	5.10	29.957	. .	[illegible]
	51	B. A. C. 4527	5.7	1	V.	239	35	7.1	3.2	4.1	14.8	5.9	12.8	7.98	30.281	. .	[illegible]
	52	83 Virginis	5.5	2	VII, IX.	334	25	10.9	8.9	4.2	13.1	7.7	10.2	9.17	32.916	. .	[illegible]
	53	Weisse (2) XIII, 978	8.5	3	III–VII.	294	55	7.0	3.8	0.9	8.5	3.9	8.9	5.50	29.959	. .	[illegible]
	54	Weisse (2) XIII, 994	7.5	3	VII–IX.	"	"	"	"	"	"	"	"	"	31.103	. .	[illegible]
	55	Weisse (2) XIII, 1167	8.3	3	III–VII.	295	20	3.9	0.7	56.9	6.2	2.3	7.0	2.83	31.470	. .	[illegible]
	56	Weisse (2) XIV, 196	6.0	2	III, VII.	298	10	6.4	3.6	8.0	6.0	2.7	7.5	5.70	31.462	. .	[illegible]
	57	Nadir	. .	5	. .	100	0	4.7	3.4	57.4	10.2	2.3	8.9	4.48	29.395	. .	
30	58	12 Virginis	. .	3	III–VII.	307	55	4.1	57.0	55.0	3.9	0.0	5.0	0.83	32.440	+ 0.633	[illegible]
	59	3 Canum Venaticorum	. .	3	IV–VI.	269	10	8.0	0.2	59.0	10.1	6.0	10.7	5.67	28.264	. .	[illegible]
	60	Radcliffe 2860	. .	3	IV–VI.	254	20	10.0	2.3	5.0	15.7	7.9	14.1	9.17	26.134	. .	[illegible]
	61	O. Arg. N. 12726	. .	3	IV–VI.	"	"	"	"	"	"	"	"	"	20.697	. .	[illegible]
	62	Weisse XII, 510	. .	3	III–VII.	316	10	10.0	59.9	58.8	7.0	3.9	9.0	4.77	28.235	. .	[illegible]
	63	11 Canum Venaticorum	. .	3	IV–VI.	269	40	11.1	2.0	1.9	13.0	7.9	13.2	8.18	24.905	. .	[illegible]
	64	16 Virginis	. .	3	III–VII.	321	30	11.4	3.0	3.0	11.0	5.2	9.9	7.25	24.978	. .	[illegible]

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	+ 1 59.3	S. 19 47 6.0	20.6	+ 19 6 12.6	− 38.3	Y.	
2	29.874	62.1	56.6	+ 45.5	76 0 50.3	3 45.6	− 37 10 56.7	− 24.3	Y.	
3	. .	. .	. .	− 1 58.6	51 13 6.2	1 11.2	− 12 20 38.2	− 29.9	Y.	
4	. .	. .	. .	− 1 9.9	65 33 58.1	2 5.4	− 26 42 24.3	− 26.8	Y.	Degrees and minutes of circle reading not recorded.
5	. .	. .	. .	− 4 6.3	65 31 1.7	2 5.1	− 26 39 27.6	− 26.8	Y.	
6	. .	. .	. .	− 3 19.3	65 31 48.7	2 5.2	− 26 40 14.7	− 26.8	Y.	
7	29.880	61.8	55.9	+ 17.8	S. 64 50 20.4	2 1.4	− 25 58 42.6	− 27.1	Y.	
8	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
9	. .	. .	. .	− 15.8	N. 5 0 12.2	4.9	+ 43 53 56.3	− 44.9	D.	
10	29.825	66.5	64.0	− 30.1	S. 56 29 30.5	1 24.8	− 17 37 16.1	− 25.9	D.	
11	. .	. .	. .	− 1 24.0	0 13 42.0	0.2	+ 38 39 57.0	− 44.1	D.	
12	. .	. .	. .	− 2 42.0	64 2 22.7	1 55.4	− 25 10 38.9	− 24.6	D.	Circle reading recorded 345° 5′.
13	29.828	66.0	62.2	+ 1 23.0	S. 76 46 28.3	3 55.5	− 37 56 44.6	− 22.1	D.	
14	. .	. .	. .	+ 2.5	N. 45 19 50.5	57.2	+ 84 14 26.9	− 53.6	D.	Whole rev. not recorded.
15	. .	. .	. .	− 2 46.1	S. 62 22 18.6	1 47.7	− 23 30 27.1	− 26.2	D.	Whole rev. recorded 33.
16	. .	. .	. .	− 2 16.0	62 22 48.7	1 47.7	− 23 30 57.2	− 26.3	D.	
17	. .	. .	. .	− 37.2	70 39 28.3	2 39.9	− 31 48 29.0	− 24.7	D.	
18	. .	. .	. .	− 4 44.9	70 35 20.6	2 39.3	− 31 44 20.7	− 24.8	D.	
19	. .	. .	. .	− 5 21.2	70 34 44.3	2 39.2	− 31 43 44.3	− 24.8	D.	
20	. .	. .	. .	− 3 18.4	70 36 47.1	2 39.5	− 31 45 47.4	− 24.8	D.	
21	29.829	65.0	60.4	− 3 26.0	78 16 41.4	4 26.2	− 39 27 28.4	− 23.7	D.	
22	. .	. .	. .	− 1 26.3	68 58 40.5	2 26.7	− 30 7 28.0	− 26.1	D.	
23	. .	. .	. .	+ 3 20.6	10 33 25.1	10.6	+ 28 20 3.5	− 40.8	D.	
24	. .	. .	. .	+ 11.0	43 45 15.9	54.5	− 4 52 31.2	− 32.0	D.	
25	29.831	63.8	58.4	+ 53.3	71 20 58.8	2 47.0	− 32 30 6.6	− 26.2	D.	
26	. .	. .	. .	− 1 38.5	40 28 27.4	48.6	− 1 35 36.8	− 32.5	D.	
27	. .	. .	. .	− 2 21.4	40 27 44.5	48.6	− 1 34 53.9	− 32.5	D.	
28	. .	. .	. .	+ 1 35.1	40 31 41.0	48.7	− 1 38 50.5	− 32.5	D.	
29	. .	. .	. .	+ 4 12.5	16 24 19.3	16.8	+ 22 29 3.1	− 37.6	D.	
30	. .	. .	. .	+ 1 9.2	16 21 16.0	16.8	+ 22 32 6.4	− 37.6	D.	
31	. .	. .	56.7	+ 1 0.5	65 51 4.9	2 6.7	− 26 59 32.4	− 27.2	D.	
32	. .	. .	. .	− 42.1	66 49 21.8	2 12.8	− 27 57 55.4	− 27.0	D.	
33	29.828	62.0	55.8	− 58.3	68 19 6.2	2 22.9	− 29 27 49.9	− 26.7	D.	
34	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
35	29.824	68.0	67.8	− 55.8	69 59 5.3	2 32.1	− 31 7 58.2	− 21.4	Y.	
36	. .	. .	. .	+ 1 40.7	72 51 47.4	2 59.1	− 34 1 7.3	− 21.2	Y.	
37	. .	. .	. .	+ 37.8	66 5 40.7	2 5.5	− 27 14 7.0	− 23.3	Y.	
38	29.827	67.9	67.0	+ 1 27.9	72 1 32.1	2 50.6	− 33 10 43.5	− 22.2	Y.	
39	. .	. .	. .	+ 1 6.3	68 11 10.9	2 18.9	− 29 19 50.6	− 23.5	Y.	
40	. .	. .	. .	− 37.9	72 19 30.0	2 53.9	− 33 28 44.7	− 22.9	Y.	
41	. .	. .	. .	+ 36.5	69 25 42.2	2 28.3	− 30 34 31.3	− 24.0	Y.	
42	29.826	67.6	65.2	− 2 31.3	70 42 37.1	2 38.9	− 31 51 36.8	− 24.1	Y.	
43	. .	. .	. .	− 1 9.1	65 18 56.7	2 1.5	− 26 27 19.0	− 25.7	Y.	
44	. .	. .	. .	− 1 59.6	65 42 4.8	2 3.7	− 26 50 29.3	− 25.8	Y.	
45	. .	. .	. .	− 38.1	30 29 26.9	33.1	+ 8 23 39.2	− 35.7	Y.	
46	29.828	67.2	65.5	+ 1 3.1	34 46 11.5	39.0	+ 4 6 48.7	− 34.5	Y.	
47	. .	. .	. .	− 1 40.5	10 33 26.4	10.5	+ 28 20 2.3	− 40.9	Y.	
48	. .	. .	. .	− 1 30.0	36 43 31.7	41.9	+ 2 9 25.6	− 33.8	Y.	
49	. .	. .	. .	+ 1 44.8	33 21 49.8	37.0	+ 5 31 12.4	− 34.6	Y.	
50	. .	. .	. .	− 18.4	S. 54 9 46.7	1 17.7	− 15 17 25.2	− 29.5	Y.	
51	29.830	67.1	64.5	− 28.4	N 40 25 20.5	47.9	+ 79 19 47.6	− 49.4	Y.	Good observation.
52	. .	. .	. .	− 1 51.2	S. 54 23 17.9	1 18.5	− 15 30 57.2	− 29.3	Y.	
53	. .	. .	. .	− 18.2	14 54 47.3	15.0	+ 23 58 36.9	− 37.6	Y.	
54	. .	. .	. .	− 53.8	14 54 11.7	15.0	+ 23 59 12.5	− 37.6	Y.	
55	. .	. .	. .	− 1 5.5	15 18 57.3	15.4	+ 23 34 26.5	− 37.0	Y.	
56	29.830	66.4	62.5	− 1 5.3	18 9 0.4	18.5	+ 20 44 20.3	− 35.2	Y.	
57	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	Night fine, but cloudy to south.
58	. .	. .	72.9	− 1 36.1	S. 27 53 24.7	29.3	+ 10 59 45.2	− 36.7	D.	
59	. .	. .	. .	+ 34.7	N. 10 49 19.7	10.6	+ 49 43 9.5	− 48.5	D.	
60	. .	. .	. .	+ 1 41.4	25 38 9.5	26.6	+ 64 32 15.3	− 51.8	D.	
61	. .	. .	. .	+ 4 31.6	N. 25 35 19.3	26.6	+ 64 29 25.1	− 51.7	D.	
62	29.856	72.8	71.7	+ 35.5	S. 36 10 40.2	40.6	+ 2 42 18.4	− 34.5	D.	
63	. .	. .	. .	+ 2 19.8	N. 10 17 32.1	10.1	+ 49 11 21.4	− 48.1	D.	
64	. .	. .	. .	+ 2 17.4	S. 41 32 24.6	49.2	− 2 39 34.6	− 33.0	D.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.							MICROMETER.		
						A.	B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Co
						° ′ ″	″	″	″	″	″	″	r.	r.	r.
1868. May 30	1	B. A. C. 4383	. .	3	IV–VI.	354 0 11.7	4.0	3.3	12.9	5.6	8.9	7.73	29.978	. .	30.6
	2	Nadir	. .	5	. .	100 0 12.2	5.6	1.9	14.8	8.2	15.0	9.62	29.554	. .	.
	3	Weisse (2) XIII, 891	. .	3	IV–VI.	287 0 12.7	2.0	2.0	12.3	6.3	13.0	8.05	24.600	. .	25.231
	4	Radcliffe 3117	. .	2	I, 3.	239 15 12.8	1.0	6.0	16.0	8.9	15.7	10.07	28.909	. .	29.541
	5	O. Arg. N. 14403	8.0	3	IV–VI.	261 55 12.9	5.0	6.0	17.2	10.0	16.2	11.22	24.608	. .	25.2
June 1	6	κ^2 Centauri	. .	3	III–VII.	353 20 12.0	4.3	3.9	15.0	5.2	9.0	8.23	33.170	+ 0.643	33.8
	7	O. Arg. S. 12243	. .	3	III–VII.	341 40 11.0	3.0	2.2	11.1	3.8	6.2	6.22	31.206	. .	31.8
	8	Weisse XII, 526	. .	3	III–VII.	304 20 10.0	1.0	0.0	10.8	6.3	10.2	6.38	24.983	. .	25.62
	9	O. Arg. S. 12390	. .	3	III–VII.	347 55 11.0	3.1	3.6	12.9	2.0	8.0	6.77	29.235	. .	29.8
	10	B. A. C. 4313	. .	3	III–VII.	357 45 11.0	4.5	4.0	14.9	4.0	oblit.	8.09	25.025	. .	25.6
	11	ψ Hydræ	. .	3	III–VII.	341 20 9.0	1.0	0.8	9.1	2.0	3.9	4.30	35.555	. .	36.202
	12	γ Hydræ	. .	3	III–VII.	" " "	"	"	"	"	"	"	28.359	. .	29.00
	13	O. Arg. S. 12808	7.5	3	III–VII.	341 55 9.0	1.0	1.4	9.5	2.9	5.0	4.80	27.182	. .	27.8
	14	Weisse XIII, 304	. .	3	III–VII.	324 30 8.2	0.4	59.1	6.5	2.0	5.1	3.50	30.053	. .	30.6
	15	Weisse XIII, 426	7.5	3	III–VII.	325 50 7.5	58.0	56.9	5.0	0.8	3.8	2.00	30.574	. .	31.21
	16	Weisse XIII, 583	7.8	3	III–VII.	" " "	"	"	"	"	"	"	37.059	. .	37.7
	17	B. A. C. 4578	. .	3	III–VII.	" " "	"	"	"	"	"	"	27.531	. .	28.17
	18	O. Arg. S. 13158	. .	3	III–VII.	340 55 9.0	0.2	0.1	9.9	1.1	3.4	3.95	27.531	. .	28.17
	19	Weisse XIII, 785	8.5	3	III–VII.	309 5 9.0	0.2	0.0	7.1	5.1	8.8	5.03	26.975	. .	27.61
	20	Lacaille 5800	. .	3	III–VII.	353 50 10.3	2.9	3.1	12.1	4.6	6.9	6.65	27.292	. .	27.9
	21	O. Arg. S. 13438	8.0	3	III–VII.	344 35 9.9	1.0	1.9	10.0	3.0	6.0	5.30	29.470	. .	30.11
	22	ι Virginis	. .	3	III–VII.	324 15 10.4	1.1	1.0	9.1	4.0	7.0	5.43	29.637	. .	30.2
	23	Weisse XIV, 173	. .	3	V–IX.	" " "	"	"	"	"	"	"	30.764	. .	31.40
	24	106 Virginis	. .	3	III–VII.	325 10 10.3	2.8	1.0	9.1	5.0	8.0	6.03	27.394	. .	28.03
	25	π Bootis	. .	3	V–IX.	301 55 12.0	3.2	3.2	12.1	6.9	10.9	8.05	31.405	. .	32.04
	26	Nadir	. .	5	. .	100 0 12.0	6.0	2.7	16.1	8.1	14.0	9.82	29.550	. .	. .
4	27	γ Corvi	. .	3	III–VII.	335 40 1.7	0.1	56.9	5.8	55.9	0.0	0.07	27.423	+ 0.646	28.0
	28	Lacaille 5144	. .	3	III–VII.	345 50 9.1	6.9	4.9	13.0	3.1	7.0	7.33	24.160	. .	24.8
	29	B. A. C. 4243	5.5	3	III–VII.	359 5 7.0	6.7	4.9	16.7	2.1	5.9	7.22	26.177	. .	26.8
	30	Lacaille 5257	7.0	3	III–VII.	344 25 3.8	1.6	58.8	8.0	58.1	1.9	2.03	26.480	. .	27.131
	31	Lacaille 5301	6.5	3	III–VII.	349 15 6.4	5.8	3.1	13.9	1.7	4.1	5.83	32.815	. .	33.46
	32	Weisse XII, 835	6.8	3	V–IX.	319 5 6.1	4.1	0.1	9.3	0.3	5.2	4.18	25.399	. .	26.04
	33	Lacaille 5371	7.5	3	III–VII.	352 25 7.0	7.1	3.9	15.0	2.7	5.1	6.80	28.044	. .	28.6
	34	B. A. C. 4369	7.0	2	VII, IX.	" " "	"	"	"	"	"	"	32.733	. .	33.3
	35	57 Virginis	5.5	3	III–VII.	338 5 4.9	3.1	1.2	10.9	59.2	2.3	3.60	26.206	. .	26.8
	36	Lacaille 5559	7.0	3	III–VII.	345 35 5.1	3.5	0.3	9.1	59.6	2.2	3.30	30.213	. .	30.8
	37	Lacaille 5563	7.5	3	V–IX.	" " "	"	"	"	"	"	"	31.337	. .	31.9
	38	O. Arg. S. 12959	9.0	2	VII, IX.	345 30 6.9	6.4	2.9	12.1	1.8	4.4	5.75	32.386	. .	33.0
	39	Anon. 13h. 31m. 25s.	7.5	3	III–VII.	" " "	"	"	"	"	"	"	35.317	. .	35.9
	40	Anon. 13h. 38m. 40s.	8.3	3	III–VII.	353 20 3.9	3.9	1.1	12.4	59.8	3.5	4.10	27.097	. .	27.7
	41	O. Arg. S. 13215	7.0	3	III–VII.	344 55 8.5	7.6	4.9	14.1	4.2	7.1	7.73	29.457	. .	30.10
	42	Anon. 13h. 54m. 34s.	7.5	3	IV–VI.	241 45 4.4	1.8	1.6	15.0	0.5	8.1	5.23	28.767	. .	29.40
	43	Anon. 14h. 5m. 31s.	8.3	2	I, IX.	351 45 3.0	3.2	0.3	10.9	58.7	1.1	2.87	30.960	. .	31.6
	44	Anon. 14h. 5m. 38s.	8.0	2	III, VII.	" " "	"	"	"	"	"	"	29.966	. .	30.61
	45	Anon. 14h. 5m. 28s.	7.5	1	V.	" " "	"	"	"	"	"	"	24.122	. .	24.76
	46	Lacaille 5898	7.0	2	VII, IX.	352 55 8.2	9.7	4.1	16.8	3.3	6.5	8.10	29.821	. .	30.4
	47	Lacaille 5967	7.3	3	III–VII.	" " "	"	"	"	"	"	"	27.253	. .	27.90
	48	Anon. 14h. 29m. 6s.	9.5	1	V.	317 15 7.1	4.6	0.8	10.3	0.3	5.4	4.75	29.187	. .	29.83
	49	Anon. 14h. 40m. 42s.	8.2	3	III–VII.	355 55 5.8	6.8	3.1	14.7	59.8	3.9	5.68	29.929	. .	30.5
	50	Anon. 14h. 46m. 24s.	9.0	2	VII, IX.	" " "	"	"	"	"	"	"	29.638	. .	30.30
	51	B. A. C. 4937	6.0	3	IV–VI.	268 45 4.9	4.7	0.8	14.8	3.2	8.9	6.22	32.336	. .	32.9
	52	Lacaille 6237	7.5	3	III–VII.	355 55 4.9	6.1	1.6	13.9	58.9	2.6	4.67	29.981	. .	30.6
	53	Lacaille 6261	7.0	3	III–VII.	" " "	"	"	"	"	"	"	36.469	. .	37.1
	54	Anon. 15h. 5m. 19s.	8.3	2	VII, IX.	" " "	"	"	"	"	"	"	33.700	. .	34.3
	55	Anon. 15h. 8m. 45s.	7.5	3	IV–VI.	" " "	"	"	"	"	"	"	38.033	. .	38.6
	56	Anon. 15h. 11m. 2s.	9.0	3	III–VII.	" " "	"	"	"	"	"	"	28.769	. .	29.4
	57	Anon. 15h. 13m. 28s.	7.5	2	I, IX.	" " "	"	"	"	"	"	"	31.136	. .	31.8
	58	Anon. 15h. 13m. 53s.	8.5	1	V.	" " "	"	"	"	"	"	"	24.781	. .	25.42
	59	Anon. 15h. 15m. 47s.	7.5	3	V–IX.	" " "	"	"	"	"	"	"	28.323	. .	28.9
	60	41 Libræ	5.5	3	III–VII.	337 45 7.7	7.4	3.9	14.8	2.5	4.3	6.77	31.407	. .	32.05
	61	β Serpentis	4.0	3	III–VII.	303 5 7.9	7.9	3.9	15.8	5.0	8.3	8.13	33.499	. .	34.14
	62	Nadir	. .	5	. .	100 0 6.9	8.8	3.1	17.1	5.7	10.4	8.67	29.511	. .	.
5	63	Anon. 13h. 6m. 21s.	9.0	3	III–VII.	354 5 5.0	59.3	59.0	8.0	59.8	2.2	2.22	28.833	+ 0.647	29.4
	64	Anon. 13h. 19m. 33s.	8.5	3	III–VII.	353 45 8.0	2.9	1.6	11.9	3.7	5.0	5.52	26.444	. .	27.09
	65	Anon. 13h. 21m. 54s.	7.5	3	III–VII.	" " "	"	"	"	"	"	"	31.943	. .	32.5
	66	O. Arg. S. 13003	. .	3	III–VII.	348 0 8.0	2.0	2.0	10.0	1.8	5.2	4.83	26.662	. .	27.3

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	29.878	72.5	71.0	− 19.2	S. 73 59 48.5	3 11.1	− 35 9 20.4	− 24.5	D.	Bar. and ther. read at 13h. 9m. Cloudy.
2	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
3	. .	. .	. .	+ 2 29.3	S. 7 2 37.3	6.9	+ 31 50 55.0	− 41.0	D.	
4	89.896	72.0	70.0	+ 14.4	N. 40 44 35.6	48.0	+ 79 39 2.8	− 48.7	D.	
5	. .	. .	. .	+ 2 29.1	N. 18 2 19.7	18.2	+ 56 56 17.1	− 43.7	D.	Thunder shower in the south.
6	30.048	72.0	71.1	− 1 59.6	S. 73 18 8.6	3 4.0	− 34 27 33.4	− 23.3	D.	
7	. .	. .	. .	− 58.0	61 39 8.2	1 43.3	− 22 47 12.3	− 26.8	D.	
8	. .	. .	. .	+ 2 17.0	24 22 23.3	25.4	+ 14 30 50.5	− 38.5	D.	
9	. .	. .	. .	+ 3.6	67 55 10.3	2 17.1	− 29 3 48.2	− 25.4	D.	
10	30.049	71.5	70.2	+ 2 15.4	77 47 23.4	4 12.5	− 38 57 56.7	− 23.3	D.	−0″.51 added to mean of A, B, C, D.
11	. .	. .	. .	− 3 14.1	61 16 50.2	1 41.9	− 22 24 52.9	− 27.6	D.	Cloudy.
12	. .	. .	. .	+ 31.1	61 20 35.4	1 42.3	− 22 28 38.5	− 27.7	D.	
13	. .	. .	. .	+ 1 8.0	61 56 12.8	1 44.8	− 23 4 18.4	− 27.6	D.	
14	. .	. .	. .	− 21.8	44 29 41.7	55.1	− 5 36 57.6	− 32.2	D.	
15	. .	. .	69.2	− 38.1	45 49 23.9	57.7	− 6 56 42.4	− 31.7	D.	
16	. .	. .	. .	− 4 1.1	45 46 0.9	57.6	− 6 53 19.3	− 31.6	D.	
17	. .	. .	. .	+ 57.1	45 50 59.1	57.8	− 6 58 17.7	− 31.5	D.	
18	. .	. .	. .	+ 57.0	60 56 0.9	1 40.7	− 22 4 2.4	− 27.7	D.	
19	. .	. .	. .	+ 1 14.6	29 6 19.6	31.3	+ 9 46 48.3	− 35.5	D.	
20	30.048	71.0	68.5	+ 1 4.4	73 51 11.0	3 11.4	− 35 0 43.2	− 25.0	D.	
21	. .	. .	. .	− 3.7	64 35 1.6	1 57.7	− 25 43 20.1	− 26.6	D.	
22	. .	. .	. .	− 8.8	44 14 56.6	54.8	− 5 22 12.2	− 30.8	D.	
23	. .	. .	. .	− 44.1	44 14 21.3	54.7	− 5 21 36.8	− 30.7	D.	
24	. .	. .	. .	+ 1 1.4	45 11 7.4	56.6	− 6 18 24.8	− 30.0	D.	
25	30.040	70.3	67.0	− 1 3.9	21 54 4.1	22.7	+ 16 59 12.4	− 34.0	D.	
26	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
27	30.306	68.2	65.0	+ 1 0.4	55 41 0.4	1 23.4	− 16 48 44.6	− 28.0	Y.	
28	. .	. .	. .	+ 2 42.4	65 52 49.7	2 6.9	− 27 1 17.4	− 25.2	Y.	
29	. .	. .	. .	+ 1 39.2	79 6 46.4	4 48.3	− 40 17 55.5	− 22.2	Y.	
30	30.300	67.8	63.8	+ 1 29.8	64 26 31.8	1 59.0	− 25 34 51.6	− 26.2	Y.	
31	. .	. .	. .	− 1 48.5	69 13 17.3	2 29.6	− 30 22 7.7	− 25.2	Y.	
32	. .	. .	. .	+ 2 3.8	39 7 7.9	46.6	− 0 14 15.3	− 34.1	Y.	
33	. .	. .	. .	+ 40.8	72 25 47.6	2 58.8	− 33 35 7.2	− 24.6	Y.	
34	. .	. .	. .	− 1 46.4	72 23 20.4	2 58.4	− 33 32 39.6	− 24.7	Y.	
35	30.304	67.1	62.9	+ 1 38.4	58 6 42.0	1 31.9	− 19 14 34.7	− 28.5	Y.	
36	. .	. .	. .	− 27.0	65 34 36.3	2 5.6	− 26 43 2.7	− 26.6	Y.	
37	. .	. .	. .	− 1 2.4	65 34 0.9	2 5.5	− 26 42 27.2	− 26.6	Y.	
38	. .	. .	. .	− 1 35.4	65 28 30.3	2 5.0	− 26 36 56.1	− 26.7	Y.	
39	. .	. .	. .	− 3 6.8	65 26 58.9	2 4.9	− 26 35 24.6	− 26.7	Y.	
40	30.296	66.7	62.0	+ 1 10.4	73 21 14.5	3 9.5	− 34 30 44.8	− 24.9	Y.	
41	. .	. .	. .	− 3.4	S. 64 55 4.3	2 2.0	− 26 3 27.1	− 26.7	Y.	
42	. .	. .	. .	+ 18.8	N. 38 14 36.0	45.3	+ 77 9 0.5	− 49.1	Y.	
43	. .	. .	. .	− 51.3	S. 71 44 11.5	2 52.5	− 32 53 24.8	− 25.1	Y.	
44	. .	. .	. .	− 19.4	71 44 43.4	2 52.6	− 32 53 56.8	− 25.1	Y.	
45	. .	. .	. .	+ 2 43.8	71 47 46.6	2 53.0	− 32 57 0.4	− 25.1	Y.	
46	30.314	66.0	61.1	− 15.3	72 54 52.8	3 5.0	− 34 4 18.6	− 24.8	Y.	
47	. .	. .	. .	+ 1 5.5	72 56 13.6	3 5.4	− 34 5 39.8	− 24.5	Y.	
48	. .	. .	. .	+ 5.2	37 15 9.9	43.8	+ 1 37 45.5	− 31.5	Y.	
49	. .	. .	60.0	− 18.2	75 54 47.4	3 45.7	− 37 4 53.9	− 23.7	Y.	
50	. .	. .	. .	− 9.6	S. 75 54 56.0	3 45.9	− 37 5 2.7	− 23.5	Y.	Faint.
51	. .	. .	. .	− 1 33.2	N. 11 16 27.0	11.5	+ 50 10 17.7	− 38.8	Y.	
52	30.324	64.8	59.4	− 19.9	S. 75 54 44.7	3 46.0	− 37 4 51.5	− 23.0	Y.	
53	. .	. .	. .	− 3 43.0	75 51 21.6	3 45.2	− 37 1 27.6	− 22.9	Y.	
54	. .	. .	. .	− 2 16.8	75 52 47.8	3 45.5	− 37 2 54.1	− 22.8	Y.	
55	. .	. .	. .	− 4 31.7	75 50 32.9	3 45.0	− 37 0 38.7	− 22.7	Y.	
56	. .	. .	. .	+ 18.1	75 55 22.7	3 46.3	− 37 5 29.8	− 22.6	Y.	
57	. .	. .	. .	− 56.9	75 54 7.7	3 46.0	− 37 4 14.5	− 22.5	Y.	
58	. .	. .	. .	+ 2 23.2	75 57 27.8	3 46.9	− 37 7 35.5	− 22.5	Y.	
59	. .	. .	59.1	+ 31.8	75 55 36.4	3 46.4	− 37 5 43.6	− 22.4	Y.	
60	30.318	64.1	59.0	− 1 4.4	57 44 2.3	1 31.3	− 18 51 54.4	− 23.6	Y.	
61	. .	. .	. .	− 2 9.7	23 2 58.4	24.6	+ 15 50 16.2	− 27.2	Y.	
62	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
63	. .	. .	. .	+ 16.1	74 5 18.3	3 14.9	− 35 14 54.0	− 24.4	D.	
64	. .	. .	. .	+ 1 30.8	73 46 36.3	3 11.1	− 34 56 8.2	− 24.6	D.	
65	30.196	70.0	69.3	− 1 21.3	73 43 44.2	3 10.6	− 34 53 15.6	− 24.7	D.	
66	. .	. .	. .	+ 1 24.0	S. 68 1 28.8	2 18.8	− 29 10 8.4	− 26.0	D.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.							MICROMETER.		
						A.	B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	[illegible]
						° ′ ″	″	″	″	″	″	″	r.	r.	
1868. June 5	1	Weisse (2) XIII, 777	. .	3	III-V.	296 20 8.8	1.1	0.0	8.9	5.0	8.0	5.30	21.251	. .	[illegible]
	2	Weisse (2) XIII, 782	. .	3	VI, VIII, IX.	" " "	"	"	"	"	"	"	27.107	. .	[illegible]
	3	Lacaille 5724	. .	3	III-VII.	356 25 8.7	3.8	2.1	12.7	2.7	4.3	5.72	26.123	. .	[illegible]
	4	Anon. 13h. 59m. 22s.	. .	2	IV, V.	333 45 8.0	0.8	0.0	8.0	2.0	3.6	3.73	29.302	. .	[illegible]
	5	Weisse XIV, 83	. .	3	III-VII.	327 15 8.4	1.0	0.1	9.3	4.0	5.8	4.77	28.858	. .	[illegible]
	6	Weisse XIV, 221	. .	3	III-VII.	322 30 7.1	59.8	59.0	7.1	2.0	4.0	3.17	26.314	. .	[illegible]
	7	Anon. 14h. 20m. 44s.	. .	3	III-VII.	345 10 6.8	0.0	0.0	7.0	0.7	2.3	2.80	35.187	. .	[illegible]
	8	Lamont 4429	9.0	3	III-VII.	317 15 7.0	58.1	57.0	5.2	0.0	4.0	1.88	29.208	. .	[illegible]
	9	π Bootis, (1st *)	. .	3	V-VII.	301 55 6.8	57.2	58.0	6.9	1.1	4.8	2.47	31.213	. .	[illegible]
	10	Lacaille 6112	. .	3	III-VII.	350 30 4.0	58.1	58.0	8.0	58.7	0.3	1.18	32.143	. .	[illegible]
	11	Lacaille 6152	. .	3	III-VII.	352 55 4.0	58.1	56.8	6.9	57.8	1.0	0.77	26.749	. .	[illegible]
	12	Anon. 14h. 56m. 39s.	7.5	3	III-VII.	356 0 8.0	3.2	2.3	12.3	1.0	5.1	5.32	29.056	. .	[illegible]
	13	Lacaille 6337	. .	3	III-V.	" " "	"	"	"	"	"	"	30.549	. .	[illegible]
	14	Anon. 15h. 13m. 27s.	. .	2	VIII, IX.	" " "	"	"	"	"	"	"	40.573	. .	[illegible]
	15	Lacaille 6382	. .	3	IV-VI.	" " "	"	"	"	"	"	"	29.464	. .	[illegible]
	16	Anon. 15h. 22m. 9s.	7.0	3	IV-VI.	" " "	"	"	"	"	"	"	21.986	. .	[illegible]
	17	Anon. 15h. 25m. 16s.	7.5	3	IV-VI.	" " "	"	"	"	"	"	"	26.807	. .	[illegible]
	18	Nadir	. .	5	. .	100 0 8.0	3.2	59.7	13.3	5.6	11.0	6.80	29.450	. .	.
8	19	ψ Hydræ	. .	3	III-VII.	341 15 8.8	1.0	59.0	10.1	1.2	4.7	5.80	25.989	+ 0.645	[illegible]
	20	Weisse XIII, 103	. .	4	I, II, VIII, IX.	329 30 7.7	59.8	58.8	7.0	59.0	4.1	2.73	25.227	. .	[illegible]
	21	Weisse XIII, 105	. .	3	IV-VI.	" " "	"	"	"	"	"	"	26.354	. .	[illegible]
	22	62 Virginis	. .	3	III-VII.	" " "	"	"	"	"	"	"	30.849	. .	[illegible]
	23	Lacaille 5573	. .	3	III-VII.	346 20 9.1	59.0	1.0	6.6	0.4	5.0	3.52	34.069	. .	[illegible]
	24	Anon. 13h. 37m. 14s.	. .	2	IV, VI.	296 15 10.0	0.0	59.0	7.2	4.0	8.0	4.70	34.662	. .	[illegible]
	25	ε Bootis	. .	2	V, VII.	296 55 9.9	0.3	59.9	oblit.	3.0	7.7	4.56	23.631	. .	[illegible]
	26	Piazzi XIII, 220	. .	1	VI.	" " "	"	"	"	"	"	"	24.932	. .	[illegible]
	27	11 Bootis	. .	3	III-VII.	290 50 9.4	0.3	1.0	8.0	4.0	8.9	5.27	25.964	. .	[illegible]
	28	Nadir	. .	5	. .	100 0 8.2	2.0	59.0	11.1	4.0	10.9	5.87	29.422	. .	. .
12	29	53 Virginis	. .	3	III-VII.	334 20 9.0	59.9	58.0	9.0	1.0	4.1	3.50	26.979	+ 0.010	[illegible]
	30	57 Virginis	. .	3	III-VII.	338 5 9.0	0.0	0.0	9.0	59.9	4.0	3.65	26.811	. .	[illegible]
	31	Lalande 24841	7.0	3	IV-VI.	278 45 12.0	2.8	1.0	12.9	6.5	12.5	7.95	27.593	. .	[illegible]
	32	Lalande 24977	. .	3	III-VII.	343 50 12.0	2.9	2.1	12.0	4.0	7.8	6.80	29.497	. .	[illegible]
	33	B. A. C. 4548	7.0	3	IV-VI.	347 45 12.0	4.6	4.5	15.0	4.0	9.0	8.18	30.831	. .	[illegible]
	34	Anon. 13h. 37m. 16s.	. .	3	III-VII.	296 15 10.6	1.3	0.0	10.2	5.7	9.5	6.22	35.354	. .	[illegible]
	35	Anon. 13h. 42m. 25s.	9.0	3	IV-VI.	" " "	"	"	"	"	"	"	34.493	. .	[illegible]
	36	Weisse XIII, 931	9.0	3	III-VII.	316 40 10.2	0.0	59.8	8.2	3.7	8.0	4.98	27.391	. .	[illegible]
	37	Anon. 14h. 5m. 28s.	. .	1	V.	351 45 8.3	2.0	1.8	12.4	2.0	4.8	5.22	24.727	. .	[illegible]
	38	Anon. 14h. 5m. 31s.	8.0	1	VII.	" " "	"	"	"	"	"	"	31.590	. .	[illegible]
	39	Anon. 14h. 5m. 38s.	8.0	1	IX.	" " "	"	"	"	"	"	"	30.554	. .	[illegible]
	40	Weisse XIV, 221	9.5	3	III-VII.	322 30 9.0	1.0	0.8	9.1	2.1	0.0	4.67	27.050	. .	[illegible]
	41	Lacaille 5955	. .	3	IV-VI.	358 40 8.9	2.1	3.0	14.3	2.0	4.0	5.72	25.575	. .	[illegible]
	42	Lacaille 5962	. .	3	V-VII.	" " "	"	"	"	"	"	"	35.712	. .	[illegible]
	43	O. Arg. S. 13814	9.0	3	IV-VI.	344 30 8.6	0.0	0.0	8.7	1.0	3.9	3.70	25.396	. .	[illegible]
	44	Lacaille 6099	7.5	3	III-VII.	346 0 9.9	1.2	3.0	10.2	2.0	5.0	5.22	29.781	. .	[illegible]
	45	B. A. C. 4910	. .	3	III-VII.	342 15 9.1	1.5	2.0	10.8	2.6	4.2	5.03	24.601	. .	[illegible]
	46	Weis. (2) XIV, 1130 (1st *)	. .	1	IV.	278 10 10.0	2.1	1.0	12.9	6.1	11.3	7.23	26.532	. .	[illegible]
	47	Weis. (2) XIV, 1130 (2d *)	. .	1	V.	" " "	"	"	"	"	"	"	26.828	. .	[illegible]
	48	Weisse (2) XIV, 1139	. .	1	VI.	" " "	"	"	"	"	"	"	28.008	. .	[illegible]
	49	Weisse (2) XIV, 1146	. .	2	VII, IX.	" " "	"	"	"	"	"	"	33.393	. .	[illegible]
	50	Anon. 15h. 1m. 53s.	. .	3	IV-VI.	355 50 10.0	3.8	3.0	13.1	2.1	5.1	6.18	33.649	. .	[illegible]
	51	Anon. 15h. 3m. 6s.	. .	1	VII.	" " "	"	"	"	"	"	"	29.870	. .	[illegible]
	52	Lacaille 6261	. .	3	IV-VI.	" " "	"	"	"	"	"	"	27.428	. .	[illegible]
	53	Anon. 15h. 5m. 18s.	. .	3	V-VII.	" " "	"	"	"	"	"	"	24.629	. .	[illegible]
	54	Anon. 15h. 16m. 30s.	. .	3	III-VII.	" " "	"	"	"	"	"	"	26.627	. .	[illegible]
	55	Anon. 15h. 17m. 28s.	7.0	2	VII, IX.	" " "	"	"	"	"	"	"	28.303	. .	[illegible]
	56	Nadir	. .	5	. .	100 0 10.7	5.9	2.0	15.8	7.3	12.4	9.02	30.158	. .	. .
13	57	ε Virginis	6.0	3	III-VII.	308 45 7.2	3.0	4.8	6.4	0.0	9.2	5.10	27.716	— 0.008	[illegible]
	58	ζ Ursæ Majoris	4.5	3	IV-VI.	263 15 7.5	1.8	1.0	11.2	5.0	11.9	6.40	26.774	. .	[illegible]
	59	B. A. C. 4486	6.0	4	I, III, VII, IX.	" " "	"	"	"	"	"	"	26.409	. .	[illegible]
	60	Anon. 13h. 31m. 59s.	8.5	3	V-IX.	349 5 10.2	7.8	4.9	14.2	5.8	9.7	8.77	31.717	. .	[illegible]
	61	Weisse XIII, 630	9.0	2	VII, IX.	331 10 6.0	1.5	58.4	6.6	0.1	5.1	2.95	31.128	. .	[illegible]
	62	Weisse XIII, 654	8.2	3	V-IX.	" " "	"	"	"	"	"	"	28.771	. .	[illegible]
	63	Lacaille 5739	6.5	3	III-VII.	347 5 8.1	3.2	0.8	9.3	0.8	7.1	4.88	35.645	. .	[illegible]
	64	Lacaille 5779	7.5	3	V-IX.	2 20 11.6	9.1	5.7	16.1	7.0	11.9	10.23	29.007	. .	[illegible]
	65	O. Arg. S. 13444	8.3	3	V-IX.	335 15 9.1	4.5	1.5	9.9	3.5	8.5	6.17	27.587	. .	[illegible]

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.		Apparent Zenith distance.	Refraction.		Observed Declination.		Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″		° ′ ″	′ ″		° ′ ″		″		
1	. .	. .	. .	+ 4 13.7	S.	16 24 19.0	16.6	+	22 29 3.6	−	39.9	D.	Whole rev. recorded 22.
2	. .	. .	. .	+ 1 10.6		16 21 15.9	16.6	+	22 32 6.7	−	39.9	D.	
3	. .	. .	. .	+ 1 40.8		76 26 46.5	3 49.4	−	37 36 56.7	−	24.2	D.	
4	. .	. .	. .	+ 1.5		53 45 5.2	1 16.8	−	14 52 42.8	−	29.1	D.	
5	. .	. .	68.3	+ 15.4		47 15 20.1	1 1.1	−	8 22 42.0	−	30.4	D.	
6	30.181	70.0	68.2	+ 1 35.1		42 31 38.2	51.8	−	3 38 50.8	−	31.3	D.	
7	. .	. .	. .	− 3 2.8		65 7 0.0	2 1.2	−	26 15 22.0	−	26.0	D.	
8	. .	. .	. .	+ 4.5		37 15 6.3	43.0	+	1 37 49.9	−	31.6	D.	
9	. .	. .	. .	− 58.2		21 54 4.2	22.7	+	16 59 12.3	−	34.6	D.	
10	. .	. .	. .	− 1 27.5		70 28 33.6	2 38.0	−	31 37 32.4	−	24.4	D.	
11	30.164	69.7	67.4	+ 1 21.3		72 56 22.0	3 2.1	−	34 5 44.9	−	23.6	D.	Microscope B recorded 8.1.
12	. .	. .	. .	+ 9.0		76 0 14.3	3 42.8	−	37 10 17.9	−	23.2	D.	
13	. .	. .	. .	− 37.6		75 59 27.7	3 42.7	−	37 9 31.2	−	22.4	D.	
14	. .	. .	. .	− 5 52.1		75 54 13.2	3 41.4	−	37 4 15.4	−	22.4	D.	
15	. .	. .	. .	− 3.5		76 0 1.8	3 42.9	−	37 10 5.5	−	22.1	D.	
16	. .	. .	. .	+ 3 50.5		76 3 55.8	3 43.9	−	37 14 0.5	−	21.9	D.	
17	30.190	69.0	67.0	+ 1 19.6		76 1 24.9	3 43.3	−	37 11 29.0	−	21.8	D.	
18	. .	. .	. .	. .		. . . .	. .		. . . .		. .	D.	
19	. .	. .	. .	+ 1 45.2		61 16 51.0	1 41.9	−	22 24 53.7	−	27.5	D.	Microscope C recorded 9.0.
20	. .	. .	. .	+ 2 9.0		49 32 11.7	1 5.3	−	10 39 37.8	−	31.0	D.	
21	30.164	74.7	72.9	+ 1 33.9		49 31 36.6	1 5.3	−	10 39 2.7	−	31.0	D.	
22	. .	. .	. .	− 46.8		49 29 15.9	1 5.2	−	10 36 41.9	−	31.0	D.	
23	. .	. .	. .	− 2 27.7		66 17 35.8	2 6.7	−	27 26 3.3	−	26.3	D.	
24	. .	. .	. .	− 2 46.1		16 12 18.6	16.3	+	22 41 4.3	−	40.3	D.	Cloudy. Circle reading recorded 296° 0′.
25	. .	. .	. .	+ 2 59.3		16 58 3.8	17.1	+	21 55 18.3	−	39.8	D.	− 0.66 added to mean of A, B, E, F.
26	. .	. .	. .	+ 2 18.5		16 57 23.0	17.1	+	21 55 59.1	−	39.8	D.	
27	30.167	74.0	72.0	+ 1 46.3		10 51 51.5	10.8	+	28 1 36.9	−	40.7	D.	
28	. .	. .	. .	. .		. . . .	. .		. . . .		. .	D.	After this observation, the eye-piece struck against wood-work of screen.
29	. .	. .	. .	+ 1 34.1		54 21 37.6	1 18.1	−	15 29 16.5	−	29.7	D.	
30	30.020	72.0	69.1	+ 1 39.4	S.	58 6 43.0	1 29.9	−	19 14 33.7	−	28.5	D.	
31	. .	. .	. .	+ 1 15.1	N.	1 13 37.0	1.2	+	40 7 17.4	−	46.5	D.	
32	. .	. .	. .	+ 15.3	S.	63 50 22.1	1 53.9	−	24 58 36.8	−	26.9	D.	
33	. .	. .	. .	− 26.4		67 44 41.7	2 16.5	−	28 53 19.0	−	25.8	D.	
34	. .	. .	. .	− 2 47.8		16 12 18.4	16.4	+	22 41 4.4	−	40.9	D.	Circle reading noted with special care.
35	. .	. .	. .	− 2 20.9		16 12 45.3	16.4	+	22 40 37.5	−	40.6	D.	
36	30.034	70.7	66.4	+ 1 21.4		36 41 26.3	42.0	+	2 11 30.9	−	34.1	D.	
37	. .	. .	. .	+ 2 44.7		71 47 49.9	2 49.7	−	32 57 0.4	−	24.4	D.	
38	. .	. .	. .	− 50.2		71 44 15.0	2 49.2	−	32 53 25.0	−	24.4	D.	
39	. .	. .	. .	− 18.4		71 44 46.8	2 49.2	−	32 53 56.8	−	24.4	D.	
40	. .	. .	. .	+ 1 32.0		42 31 36.6	51.7	−	3 38 49.1	−	31.6	D.	
41	. .	. .	. .	+ 2 18.1		78 42 23.8	4 34.7	−	39 53 19.3	−	22.7	D.	
42	30.040	70.0	66.0	− 2 59.2		78 37 6.5	4 32.7	−	39 48 0.0	−	22.7	D.	
43	. .	. .	. .	+ 2 23.8		64 32 27.5	1 58.1	−	25 40 46.4	−	25.3	D.	
44	. .	. .	. .	+ 6.4		66 0 11.6	2 6.3	−	27 8 38.7	−	24.7	D.	
45	. .	. .	65.0	+ 2 48.6	S.	62 17 53.6	1 47.3	−	23 26 1.7	−	25.2	D.	
46	. .	. .	. .	+ 1 48.3	N.	1 48 4.5	1.8	+	40 41 45.5	−	38.8	D.	
47	. .	. .	. .	+ 1 39.0		1 48 13.8	1.8	+	40 41 54.8	−	38.8	D.	
48	. .	. .	. .	+ 1 2.2		1 48 50.6	1.8	+	40 42 31.6	−	38.8	D.	
49	. .	. .	. .	− 1 45.5		1 51 38.3	1.8	+	40 45 19.3	−	38.8	D.	
50	. .	. .	. .	− 1 54.6		75 48 11.5	3 39.8	−	36 58 12.1	−	22.1	D.	
51	. .	. .	. .	+ 3.6		75 50 9.7	3 40.3	−	37 0 10.8	−	22.0	D.	
52	. .	. .	. .	+ 1 20.1		75 51 26.2	3 40.6	−	37 1 27.6	−	21.9	D.	
53	30.046	69.0	64.7	+ 2 47.8		75 52 53.9	3 41.0	−	37 2 55.7	−	21.8	D.	
54	. .	. .	. .	+ 1 45.0		75 51 51.1	3 40.8	−	37 1 52.7	−	21.4	D.	
55	. .	. .	. .	+ 52.3		75 50 58.4	3 40.6	−	37 0 59.8	−	21.4	D.	
56	. .	. .	. .	. .		. . . .	. .		. . . .		. .	D.	
57	30.102	73.4	73.3	+ 1 11.8	S.	28 46 16.9	30.6	+	10 6 51.7	−	38.0	Y.	
58	. .	. .	. .	+ 1 41.3	N.	16 43 12.3	16.8	+	55 37 8.3	−	50.1	Y.	
59	. .	. .	. .	+ 1 54.1	N.	16 42 59.5	16.8	+	55 36 55.5	−	50.1	Y.	
60	. .	. .	. .	− 53.7	S.	69 4 15.0	2 25.1	−	30 13 0.9	−	25.5	Y.	
61	. .	. .	. .	− 35.1		51 9 27.8	1 9.4	−	12 16 58.0	−	30.4	Y.	
62	. .	. .	. .	+ 38.7		51 10 41.6	1 9.5	−	12 18 11.9	−	30.4	Y.	
63	30.114	73.1	71.2	− 2 56.6		67 2 8.2	2 11.4	−	28 10 40.4	−	25.9	Y.	
64	. .	. .	. .	+ 30.9		82 20 41.1	6 32.8	−	43 33 34.7	−	22.3	Y.	Whole revolutions not recorded.
65	. .	. .	. .	+ 1 15.8	S.	55 16 21.9	1 20.8	−	16 24 3.5	−	28.6	Y.	Whole revolutions not recorded.

						MICROSCOPES.							MICROMETER.		
DATE	Number	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires.	A.	B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor	Corr'd
						° ′ ″	″	″	″	″	″	″	r.	r.	r.
1868. June 13	1	Lacaille 5878 . .	7.0	3	IV-VI.	0 50 8.2	5.2	3.1	13.0	2.2	7.9	6.60	35.994	. .	35.[illegible]
	2	Lacaille 5915 . .	7.3	3	III-VII.	345 5 5.2	1.2	58.1	4.9	58.4	3.4	1.87	34.335	. .	34.33[illegible]
	3	Anon. 14h. 23m. 19s.	9.0	3	III-VII.	344 25 8.7	3.1	1.2	9.5	2.9	7.6	5.50	33.741	. .	33.73[illegible]
	4	Anon. 14h. 29m. 3s.	7.3	3	III-VII	355 45 8.6	6.8	1.9	11.7	1.5	7.0	6.25	25.459	. .	25.45[illegible]
	5	Lacaille 6067 . .	7.0	3	III-VII.	348 15 7.7	4.2	2.7	10.9	2.0	6.9	5.73	25.758	. .	25.75[illegible]
	6	B. A. C. 4901 . .	5.0	3	III-VII.	356 5 7.3	5.1	1.1	10.9	1.1	6.2	5.28	29.087	. .	29.08[illegible]
	7	O. Arg. S. 14094 .	7.5	3	III-VII.	340 30 9.6	5.8	2.0	12.0	4.8	8.3	7.08	32.071	. .	32.06[illegible]
	8	O. Arg. S. 14230 .	6.7	3	III-VII.	344 10 7.4	3.2	0.5	8.9	1.5	6.1	4.60	33.504	. .	33.50[illegible]
	9	Anon. 15h. 5m. 19s.	7.3	3	III-VII.	355 55 7.7	5.1	2.1	11.2	1.2	6.1	5.57	34.142	. .	34.14[illegible]
	10	Anon. 15h. 11m. 1s.	8.0	1	V.	356 0 7.9	6.3	2.4	12.5	1.4	7.0	6.25	38.827	. .	38.8[illegible]
	11	Anon. 15h. 12m. 52s.	8.5	3	IV-VI.	" " "	"	"	"	"	"	"	34.830	. .	34.82[illegible]
	12	Lacaille 6337 . .	6.5	3	V-IX.	" " "	"	"	"	"	"	"	31.183	. .	31.18[illegible]
	13	Anon. 15h. 15m. 47s.	8.3	3	V-IX.	" " "	"	"	"	"	"	"	38.449	. .	38.45[illegible]
	14	B. A. C. 5111, (1st *)	7.5	2	I, IX.	342 55 8.8	4.2	1.8	9.4	3.0	6.3	5.58	31.724	. .	31.7[illegible]
	15	B. A. C. 5111, (2d *)	7.3	3	III-VII.	" " "	"	"	"	"	"	"	31.612	. .	31.60[illegible]
	16	Lacaille 6473 . .	6.5	3	III-VII.	349 40 8.2	4.7	2.9	11.1	1.5	6.9	5.88	33.869	. .	33.86[illegible]
	17	O. Arg. S. 14855 .	7.8	1	V.	344 25 8.4	5.0	2.6	10.2	3.6	7.9	6.28	29.746	. .	29.7[illegible]
	18	O. Arg. S. 14861 .	8.0	2	VII, IX.	" " "	"	"	"	"	"	"	33.561	. .	33.561
	19	B. A. C. 5211 . .	7.5	1	IX.	" " "	"	"	"	"	"	"	27.788	. .	27.7[illegible]
	20	B. A. C. 5296 . .	6.5	3	III-VII.	348 35 12.0	9.9	7.6	16.1	6.7	10.9	10.53	33.266	. .	33.264
	21	O. Arg. S. 15183 .	9.0	3	IV-VI.	342 10 8.4	5.4	3.1	11.2	3.3	7.1	6.42	34.483	. .	34.476
	22	O. Arg. S. 15191 .	7.5	2	VII, IX.	" " "	"	"	"	"	"	"	29.914	. .	29.91[illegible]
	23	Nadir	. .	5	. .	100 0 7.3	6.2	1.4	13.9	6.1	11.8	7.78	30.136	. .	. .
15	24	ε Virginis	. .	3	IV-VI.	308 45 8.3	57.3	56.1	2.9	2.0	8.0	2.43	27.685	— 0.010	27.674
	25	B. A. C. 4486 . .	. .	4	II, III, VII, VIII	263 15 8.0	57.9	59.8	9.1	3.1	10.8	4.78	26.377	. .	26.33[illegible]
	26	ζ Ursæ Majoris . .	. .	3	IV-VI.	" " "	"	"	"	"	"	"	26.759	. .	26.74[illegible]
	27	Lacaille 5626 . .	. .	3	IV-VI.	343 5 8.0	57.3	57.0	4.9	59.4	4.9	1.92	33.152	. .	33.14[illegible]
	28	B. A. C. 4595 . .	. .	3	I, 5, VI.	279 45 11.0	1.1	0.0	8.9	5.8	11.7	6.42	32.942	. .	32.93[illegible]
	29	Lacaille 5758 . .	. .	3	IV-VI.	356 35 10.7	1.9	1.7	11.1	2.1	7.8	5.88	39.102	. .	39.09[illegible]
	30	Anon. 13h. 49m. 0s.	. .	3	VII, IX.	" " "	"	"	"	"	"	"	30.074	. .	30.0[illegible]
	31	Anon. 14h. 7m. 51s.	9.0	3	V-VII.	355 50 10.8	2.0	1.1	10.0	2.0	7.0	5.48	31.729	. .	31.7[illegible]
	32	Lacaille 5955 . .	6.2	3	III-V.	358 40 11.0	2.6	3.2	12.8	3.2	7.3	6.68	25.412	. .	25.410
	33	Lacaille 5962 . .	6.2	3	IV-VI.	" " "	"	"	"	"	"	"	35.598	. .	35.5[illegible]
	34	Anon. 14h. 28m. 52s.	8.0	3	III-VII.	353 5 11.9	2.0	2.2	11.3	3.7	9.1	6.70	32.492	. .	32.4[illegible]
	35	Rumker 4800 . .	. .	3	IV-VI.	266 5 12.0	1.1	4.8	13.1	7.4	16.0	9.07	29.442	. .	29.4[illegible]
	36	Lalande, F., 2537 .	8.0	3	1-5.	238 35 12.2	58.0	4.0	13.3	6.8	15.3	8.27	33.547	. .	33.5[illegible]
	37	Lacaille 6157 . .	. .	3	III-V.	351 10 12.0	1.8	3.0	10.9	3.1	7.8	6.43	32.156	. .	32.15[illegible]
	38	Lacaille 6164 . .	. .	3	V-VII.	" " "	"	"	"	"	"	"	32.386	. .	32.37[illegible]
	39	Anon. 14h. 57m. 36s.	7.0	3	IV-VI.	345 10 13.3	2.8	3.0	9.4	4.1	9.0	6.93	26.868	. .	26.8[illegible]
	40	Anon. 14h. 59m. 4s.	7.0	3	III-VII.	" " "	"	"	"	"	"	"	29.399	. .	29.39[illegible]
	41	O. Arg. S. 14402 .	9.0	3	III-VII.	339 15 13.8	3.0	4.8	11.4	5.1	9.2	7.88	22.707	. .	22.701
	42	O. Arg. S. 14436 .	8.0	3	IV-VI.	" " "	"	"	"	"	"	"	30.979	. .	30.97[illegible]
	43	O. Arg. S. 14459 .	. .	3	III-VII.	" " "	"	"	"	"	"	"	29.694	. .	29.68[illegible]
	44	Rumker 5093 . .	9.0	3	V-VII.	274 10 13.0	2.3	3.0	12.9	8.3	16.0	9.25	34.828	. .	34.[illegible]
	45	Nadir	. .	5	. .	100 0 13.2	4.0	1.2	13.8	7.0	16.0	9.20	30.184	. .	. .
17	46	τ Bootis	. .	3	IV-VI.	300 45 13.2	4.9	3.0	12.3	7.2	13.3	8.98	27.849	— 0.005	27.84[illegible]
	47	B. A. C. 4636 . .	. .	3	IV-VI.	346 45 10.2	1.0	2.0	9.3	1.0	8.1	5.27	27.044	. .	27.041
	48	Lacaille 5842 . .	. .	3	III-VII.	348 0 11.3	1.8	3.0	11.0	2.0	8.8	6.32	28.018	. .	28.01[illegible]
	49	O. Arg. S. 13510 .	. .	3	III-VII.	345 10 12.0	2.2	3.0	10.0	3.3	7.9	6.40	25.344	. .	25.34[illegible]
	50	Lacaille 5922 . .	. .	2	IV, V.	347 55 12.0	1.7	4.3	12.3	2.0	10.0	7.05	28.353	. .	28.351
	51	Lacaille 5926 . .	. .	1	IX.	" " "	"	"	"	"	"	"	34.802	. .	34.[illegible]
	52	O. Arg. N. 14614 .	8.7	3	IV-VI.	269 45 10.9	0.0	1.2	12.0	5.8	12.8	7.12	28.717	. .	28.70[illegible]
	53	Lacaille 6027 . .	. .	3	III-VII.	351 40 10.9	2.4	3.0	12.3	3.2	8.1	6.65	31.415	. .	31.41[illegible]
	54	Weisse XIV, 748 .	7.5	3	III-VII.	318 35 11.1	1.0	1.0	7.7	3.0	9.4	5.53	27.887	. .	27.8[illegible]
	55	Lacaille 6135 . .	. .	2	III, V.	352 25 10.0	0.0	1.4	10.9	1.2	6.0	4.92	26.455	. .	26.45[illegible]
	56	O. Arg. N. 15005 .	9.0	3	IV-VI.	259 50 10.2	59.2	3.0	14.2	6.0	14.3	7.82	29.584	. .	29.57[illegible]
	57	Anon. 14h. 54m. 12s.	9.3	2	VIII, IX.	" " "	"	"	"	"	"	"	30.560	. .	30.[illegible]
	58	Nadir	. .	5	. .	100 0 10.0	1.7	0.0	13.0	4.8	13.0	7.08	30.111	. .	. .
18	59	ψ Centauri	5.0	3	V-IX.	356 4 56.9	53.4	52.1	59.3	50.2	56.5	54.73	26.358	— 0.008	26.36[illegible]
	60	O. Arg. S. 13694 .	8.3	3	V-IX.	342 50 10.0	5.2	4.7	10.9	4.1	9.4	7.38	29.676	. .	29.67[illegible]
	61	ζ Bootis	4.5	3	III-VII.	304 35 7.9	1.8	0.7	7.9	2.8	10 7	5.30	29.397	. .	29.3[illegible]
		Lacaille 6100 . .	7.0	3	V-IX.	354 5 7.2	2.9	1.2	9.4	0.9	6.7	4.72	24.623	. .	24.62[illegible]
		Anon. 14h. 49m. 47s.	8.3	2	I, IX.	339 40 8.9	5.0	4.8	12.0	2.9	8.9	7.08	27.978	. .	27.9[illegible]
		B. A. C. 4923 . .	6.5	3	IV-VI.	" " "	"	"	"	"	"	"	27.830	. .	27.82[illegible]
		Anon. 14h. 58m. 28s.	7.0	3	III-VII.	340 45 10.1	5.0	3.1	13.0	2.2	9.0	7.07	29.360	. .	29.35[illegible]

Number.	Barometer.	THERM'S.		Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.							
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	− 3 7.5	S. 80 46 59.1	5 31.4	− 41 58 51.3	− 22.4	Y.	
2	30.120	73.0	70.2	− 2 15.6	65 2 46.2	2 0.0	− 26 11 7.0	− 25.8	Y.	
3	. .	. .	. .	− 1 57.0	64 23 8.5	1 56.6	− 25 31 25.9	− 25.7	Y.	
4	. .	. .	. .	+ 2 22.1	75 47 28.3	3 38.0	− 36 57 27.1	− 23.1	Y.	
5	. .	. .	. .	+ 2 12.8	68 17 18.5	2 20.3	− 29 25 59.6	− 24.4	Y.	
6	. .	. .	. .	+ 28.6	76 5 33.8	3 43.1	− 37 15 37.7	− 22.6	Y.	
7	30.120	72.4	68.4	− 1 4.7	60 29 2.3	1 39.2	− 21 37 2.3	− 25.4	Y.	
8	. .	. .	. .	− 1 49.6	64 8 15.0	1 55.7	− 25 16 31.5	− 24.3	Y.	
9	. .	. .	. .	− 2 9.7	75 52 55.8	3 40.1	− 37 2 56.7	− 21.8	Y.	
10	. .	. .	. .	− 4 36.1	75 55 30.1	3 40.9	− 37 5 31.8	− 21.6	Y.	
11	. .	. .	. .	− 2 31.0	75 57 35.2	3 41.5	− 37 7 37.5	− 21.5	Y.	
12	. .	. .	. .	− 37.1	75 59 29.1	3 42.0	− 37 9 31.9	− 21.4	Y.	
13	30.116	71.8	67.4	− 4 24.6	75 55 41.6	3 41.0	− 37 5 43.4	− 21.4	Y.	
14	. .	. .	. .	− 54.4	62 54 11.1	1 49.9	− 24 2 21.8	− 22.9	Y.	
15	. .	. .	. .	− 50.4	62 54 15.1	1 50.0	− 24 2 25.9	− 22.9	Y.	
16	. .	. .	. .	− 2 1.0	69 38 4.8	2 31.0	− 30 46 56.6	− 21.5	Y.	
17	. .	. .	. .	+ 8.2	64 25 14.4	1 57.6	− 25 33 32.8	− 21.8	Y.	
18	. .	. .	. .	− 1 51.5	64 23 14.7	1 57.4	− 25 31 32.9	− 21.8	Y.	
19	30.114	71.1	66.3	+ 1 9.1	64 26 15.3	1 57.7	− 25 34 33.8	− 21.7	Y.	
20	. .	. .	. .	− 1 42.2	68 33 28.3	2 23.0	− 29 42 12.1	− 20.3	Y.	
21	. .	. .	. .	− 2 20.1	62 7 46.3	1 46.6	− 23 15 53.7	− 20.7	Y.	
22	. .	. .	65.8	+ 2.7	62 10 9.1	1 46.8	− 23 18 16.7	− 20.7	Y.	Thermometer recorded 15.8.
23	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	Y.	
24	. .	. .	. .	+ 1 12.8	S. 28 46 15.2	30.3	+ 10 6 53.7	− 38.2	D.	
25	. .	. .	. .	+ 1 54.7	N. 16 43 0.6	16.6	+ 55 36 56.4	− 50.5	D.	
26	. .	. .	. .	+ 1 41.9	N. 16 43 13.4	16.6	+ 55 37 9.2	− 50.5	D.	
27	30.084	78.8	78.0	− 1 38.3	S. 63 3 23.6	1 48.2	− 24 11 32.6	− 27.2	D.	
28	. .	. .	. .	− 1 31.7	N. 0 16 25.3	0.3	+ 39 10 4.8	− 45.6	D.	
29	. .	. .	77.6	− 4 44.6	S. 76 30 21.2	3 45.8	− 37 40 27.8	− 23.5	D.	
30	. .	. .	. .	− 2.5	76 35 3.3	3 47.1	− 37 45 11.2	− 23.5	D.	
31	30.100	78.3	77.0	− 54.1	75 49 11.3	3 35.2	− 36 59 7.3	− 23.5	D.	
32	. .	. .	. .	+ 2 23.7	78 42 30.3	4 29.6	− 39 53 20.7	− 22.6	D.	
33	. .	. .	. .	− 2 55.0	78 37 11.6	4 27.6	− 39 48 0.0	− 22.6	D.	
34	. .	. .	76.4	− 1 17.9	S. 73 3 48.8	2 59.8	− 34 13 9.4	− 23.6	D.	
35	. .	. .	. .	+ 17.9	N. 13 54 33.1	13.7	+ 52 48 26.0	− 43.6	D.	
36	. .	. .	. .	− 1 50.7	N. 41 26 42.5	49.0	+ 80 21 10.7	− 45.9	D.	Whole revolutions not recorded.
37	. .	. .	. .	− 1 7.4	S. 71 8 59.0	2 40.9	− 32 18 0.7	− 23.2	D.	
38	. .	. .	76.0	− 1 14.4	71 8 52.0	2 40.9	− 32 17 53.7	− 23.2	D.	
39	. .	. .	. .	+ 1 38.3	65 11 45.2	1 59.5	− 26 20 5.5	− 24.1	D.	
40	. .	. .	. .	+ 19.0	65 10 25.9	1 59.4	− 26 18 46.1	− 24.0	D.	
41	. .	. .	. .	+ 3 48.5	59 18 56.3	1 33.4	− 20 26 50.5	− 24.7	D.	
42	. .	. .	. .	− 30.4	59 14 37.4	1 33.1	− 20 22 31.3	− 24.6	D.	
43	30.098	77.5	75.3	+ 9.8	S. 59 15 17.6	1 33.1	− 20 23 11.5	− 24.5	D.	
44	. .	. .	. .	− 2 30.5	N. 5 52 21.3	5.7	+ 44 46 6.2	− 36.4	D.	
45	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
46	. .	. .	. .	+ 1 7.5	S. 20 46 16.4	20.9	+ 18 7 1.9	− 40.1	D.	
47	29.940	79.0	78.1	+ 1 32.6	66 46 37.8	2 7.3	− 27 55 5.9	− 26.0	D.	
48	. .	. .	. .	+ 1 2.0	68 1 8.3	2 15.5	− 29 9 44.6	− 25.3	D.	
49	. .	. .	77.0	+ 2 25.7	65 12 32.1	1 58.7	− 26 20 51.6	− 25.9	D.	
50	. .	. .	. .	+ 51.6	67 55 58.6	2 15.1	− 29 4 34.5	− 25.1	D.	
51	. .	. .	. .	− 2 30.7	S. 67 52 36.3	2 14.7	− 29 1 11.8	− 25.1	D.	
52	. .	. .	. .	+ 40.4	N. 10 14 12.5	10.0	+ 49 8 1.7	− 44.6	D.	
53	29.954	78.8	75.8	− 44.4	S. 71 39 22.2	2 44.8	− 32 48 27.8	− 23.7	D.	
54	. .	. .	. .	+ 1 6.3	38 36 11.8	44.1	+ 0 16 43.3	− 31.5	D.	
55	. .	. .	75.2	+ 1 50.9	S. 72 26 55.8	2 52.8	− 33 36 9.4	− 23.0	D.	Interrupted by clouds.
56	. .	. .	. .	+ 13.3	N. 20 9 38.9	20.3	+ 59 3 38.4	− 42.8	D.	
57	. .	. .	. .	− 15.1	N. 20 10 7.3	20.3	+ 59 4 6.8	− 42.8	D.	Cloudy.
58	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
59	29.870	79.5	77.2	+ 1 53.9	S. 76 6 48.6	3 38.0	− 37 16 47.4	− 23.1	Y.	
60	. .	. .	. .	+ 10.3	62 50 17.6	1 46.7	− 23 58 25.1	− 26.1	Y.	
61	. .	. .	. .	+ 19.2	24 35 24.5	25.2	+ 14 17 49.5	− 35.8	Y.	
62	29.880	79.3	76.4	+ 2 48.2	74 7 52.9	3 10.8	− 35 17 24.5	− 22.8	Y.	
63	. .	. .	. .	+ 1 3.0	59 41 10.0	1 33.9	− 20 49 4.7	− 25.7	Y.	
64	. .	. .	. .	+ 1 8.2	59 41 15.2	1 33.9	− 20 49 9.9	− 25.7	Y.	
65	. .	. .	. .	+ 20.2	S. 60 45 27.2	1 38.0	− 21 53 26.0	− 25.0	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.							MICROMETER.		
						A.	B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Corr'd.
						° ′ ″	″	″	″	″	″	″	r.	r.	r
1868. June 18	1	Dorpat 1914, (2d *)	8.5	2	IV, VI.	323 50 10.4	3.8	3.2	9.7	4.7	10.3	7.02	28.064	. .	28.059
	2	B. A. C. 5064	7.0	3	IV-VI.	268 10 9.1	5.5	4.1	13.3	7.2	15.5	9.12	26.346	. .	26.334
	3	ζ³ Libræ	5.7	3	III-VII.	335 0 9.4	3.6	1.3	9.1	2.9	8.9	5.87	27.097	. .	27.092
	4	Lacaille 6499	6.2	3	III-VII.	350 5 9.0	4.0	4.0	11.2	0.9	8.0	6.18	36.110	. .	36.105
	5	χ Lupi	5.0	3	III-VII.	352 5 8.5	4.0	3.4	11.6	1.2	7.2	5.98	31.593	. .	31.582
	6	γ Serpentis	4.5	3	III-VII.	302 50 8.1	3.0	1.9	9.2	3.8	10.5	6.08	34.975	. .	34.964
	7	B. A. C. 5333	8.3	3	III-VII.	338 10 8.1	2.9	2.1	8.1	0.1	5.6	4.48	27.748	. .	27.744
	8	Weisse XVI, 113	8.5	3	III-VII.	333 10 8.8	4.6	3.3	10.9	3.4	9.0	6.63	29.237	. .	29.232
	9	O. Arg. S. 15571	7.5	3	III-VII.	335 35 5.0	0.6	58.8	6.2	58.2	4.7	2.25	30.805	. .	30.800
	10	φ Ophiuchi	5.5	3	III-VII.	335 10 7.3	2.2	0.4	7.1	59.8	7.1	3.98	27.029	. .	27.024
	11	33 Herculis	7.5	3	V-IX.	311 30 8.9	3.8	1.2	9.7	3.5	9.5	6.10	29.580	. .	29.574
	12	Lalande 30545	8.5	3	IV-VI.	256 20 4.8	1.2	2.8	13.8	1.5	12.7	6.13	31.523	. .	31.520
	13	O. Arg. N. 16431	7.2	3	IV-VI.	" " "	"	"	"	"	"	"	29.561	. .	29.547
	14	60 Herculis	6.0	3	IV-VI.	306 0 6.3	1.2	59.0	7.1	0.0	8.9	3.75	34.670	. .	34.663
	15	Anon. 17h. 6m. 21s.	8.5	3	III-VII.	352 25 11.3	7.1	6.0	16.2	4.8	10.5	9.32	28.299	. .	28.298
	16	B. A. C. 5807	7.0	3	V-IX.	" " "	"	"	"	"	"	"	29.030	. .	29.031
	17	Nadir	. .	.	. .	100 0 8.9	6.5	2.6	14.7	5.6	14.1	8.73	30.167	. .	.
22	18	g Centauri	. .	3	IV-VI.	352 40 23.1	16.0	17.0	26.8	14.0	19.0	19.32	33.795	+ 0.017	33.812
	19	Lacaille 5790	. .	3	III-VII.	345 5 10.0	2.0	3.1	9.7	0.0	4.9	4.95	31.408	. .	31.425
	20	Lacaille 5837	. .	3	III-VII.	348 50 11.0	3.9	5.9	14.0	2.9	6.0	7.28	28.222	. .	28.245
	21	Lacaille 5873	. .	3	III-VII.	350 20 10.3	3.0	4.9	14.8	2.0	5.9	6.82	34.576	. .	34.593
	22	Anon. 14h. 13m. 46s.	. .	3	III-VII.	356 55 11.0	4.3	6.0	16.0	3.3	oblit.	7.77	31.516	. .	31.541
	23	Lacaille 5959	. .	3	III-VII.	343 50 12.0	3.8	4.8	14.2	4.0	7.0	7.63	32.313	. .	32.335
	24	Lacaille 5999	. .	3	IV-VI.	357 50 10.0	3.0	5.7	16.0	2.2	4.1	6.83	28.948	. .	28.967
	25	54 Hydræ, (1st *)	6.0	3	IV-VI.	343 45 10.6	3.7	3.1	13.8	2.4	6.8	6.73	30.800	. .	30.815
	26	54 Hydræ, (2d *)	8.0	4	I, II, VIII, IX.	" " "	"	"	"	"	"	"	30.586	. .	30.621
	27	Struve, C. G., 1668	6.3	3	VI-VIII.	266 55 10.9	2.8	7.0	18.6	7.0	13.3	9.93	23.978	. .	23.975
	28	Anon. 14h. 53m. 59s.	8.5	3	III-VII.	350 50 10.0	3.0	5.1	15.2	1.3	5.0	6.60	29.634	. .	29.657
	29	Anon. 15h. 1m. 24s.	8.7	3	III-VII.	" " "	"	"	"	"	"	"	30.063	. .	30.095
	30	Anon. 15h. 4m. 35s.	8.5	3	III-VII.	344 0 10.7	4.0	5.0	15.8	3.9	7.0	7.73	32.057	. .	32.075
	31	O. Arg. S. 14349	8.0	3	VII-IX.	" " "	"	"	"	"	"	"	24.630	. .	24.654
	32	Anon. 15h. 12m. 30s.	8.3	3	III-VII.	343 20 9.0	1.8	2.2	11.8	1.0	4.7	5.08	27.161	. .	27.185
	33	Lacaille 6372	6.5	3	III-V.	354 55 8.9	4.0	4.2	13.9	1.9	5.0	6.32	38.529	. .	38.554
	34	Anon. 15h. 17m. 53s.	6.5	3	V-VII.	" " "	"	"	"	"	"	"	24.361	. .	24.389
	35	Anon. 15h. 28m. 16s.	9.0	3	III-VII.	342 40 8.2	0.2	2.0	10.2	0.0	3.2	3.97	35.324	. .	35.346
	36	Anon. 15h. 33m. 25s.	8.0	3	III-VII.	334 25 9.0	1.8	2.1	11.0	0.8	5.0	4.95	27.558	. .	27.575
	37	Lacaille 6517, (1st *)	. .	3	III-V.	354 0 10.0	4.2	5.2	15.2	3.1	6.3	7.33	37.522	. .	37.546
	38	Lacaille 6517, (2d *)	. .	3	VI-VIII.	" " "	"	"	"	"	"	"	36.656	. .	36.676
	39	O. Arg. N. 15681	7.0	2	I, V.	252 35 10.2	2.9	7.2	19.1	5.0	13.0	9.57	25.021	. .	25.038
	40	O. Arg. N. 15688	7.0	2	I, 5.	" " "	"	"	"	"	"	"	25.168	. .	25.185
	41	Weisse (2) XV, 1330	. .	3	III-VII.	276 15 10.0	0.0	3.0	15.2	4.0	10.3	7.08	27.544	. .	27.551
	42	Nadir	. .	5	. .	100 0 10.0	5.1	3.0	17.3	5.3	12.0	8.78	30.144	. .	.
23	43	Lacaille 5923	7.5	3	III-VII.	351 20 13.4	11.6	9.3	20.0	7.2	12.4	12.32	30.024	+ 0.005	30.036
	44	Lacaille 5983	6.5	3	III-VII.	349 0 10.1	8.4	7.1	17.0	4.1	8.1	9.07	31.962	. .	31.973
	45	Lacaille 6051	. .	3	IV-VI.	348 0 9.0	6.6	5.9	14.8	1.8	8.5	7.77	31.665	. .	31.672
	46	O. Arg. S. 13996	7.5	3	III-VII.	342 35 7.0	3.0	1.9	11.0	59.5	5.0	4.57	27.285	. .	27.295
	47	O. Arg. S. 14094	8.0	3	III-VII.	340 30 8.1	6.2	3.9	14.1	2.6	7.1	7.00	32.116	. .	32.125
	48	β Bootis	5.5	3	V-IX.	278 0 9.9	7.5	5.2	17.0	6.7	14.7	10.17	32.721	. .	32.733
	49	B. A. C. 5018	7.5	3	III-VII.	346 15 10.6	8.0	6.7	15.0	3.7	9.1	8.85	33.301	. .	33.311
	50	O. Arg. N. 15272	7.0	3	IV-VI.	273 25 4.1	1.4	0.9	11.8	1.8	9.2	4.87	32.671	. .	32.673
	51	ζ³ Libræ	6.0	3	III-VII.	335 0 11.2	9.0	6.7	14.9	5.9	10.6	9.72	27.215	. .	27.225
	52	Radcliffe 3415	7.0	3	III-VII.	278 40 7.0	4.2	2.5	14.0	2.3	11.7	6.95	35.099	. .	35.095
	53	Radcliffe 3416	6.5	2	I, IX.	" " "	"	"	"	"	"	"	31.824	. .	31.835
	54	Lalande 28726	8.0	3	III-VII.	336 30 7.7	4.5	3.9	11.0	0.9	6.9	5.82	24.545	. .	24.555
	55	Radcliffe 3462	7.0	3	IV-VI.	275 55 3.1	0.2	59.3	11.9	1.8	7.1	3.90	28.673	. .	28.675
	56	Weisse (2) XV, 1201	8.5	3	IV-VI.	" " "	"	"	"	"	"	"	30.615	. .	30.617
	57	O. Arg. S. 15417	8.7	3	III-VII.	342 40 4.0	1.6	0.2	7.2	57.3	2.1	2.07	29.987	. .	29.997
	58	B. A. C. 5365	7.3	3	IV-VI.	343 5 8.7	6.5	4.7	12.9	2.8	7.7	7.22	28.887	. .	28.895
	59	B. A. C. 5441	. .	3	III-VII.	348 5 8.7	7.8	6.9	16.1	1.1	8.5	8.18	34.146	. .	34.157
	60	O. Arg. S. 15671	7.0	3	III-VII.	343 45 8.4	6.3	3.9	14.2	0.7	7.2	6.78	34.095	. .	34.105
	61	33 Herculis	. .	3	III-VII.	311 30 9.7	7.2	4.1	13.8	4.3	10.7	8.30	29.660	. .	29.663
	62	η Herculis	4.5	3	IV-VI.	279 45 8.1	6.8	4.7	14.9	4.5	11.6	8.43	34.099	. .	34.109
	[illegible]	[illegible] Herculis	5.5	3	V-IX.	288 50 7.2	4.6	1.9	12.2	4.0	9.7	6.60	27.653	. .	27.643
		Herculis	5.0	3	III-VII.	285 10 7.6	5.3	3.8	14.8	5.1	11.8	8.07	34.585	. .	34.595
		[illegible], (2d *)	7.0	3	III-VII.	304 20 9.3	6.6	5.2	15.7	6.2	12.1	9.18	29.250	. .	29.252
		[illegible]	. .	5	. .	100 0 7.0	6.8	2.7	15.9	4.7	11.1	8.03	30.132	. .	.

Number.	Barometer.	THERM'S.		Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.							
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. . .	. .	. . .	+ 1 0.8	S. 43 51 7.8	52.9	− 4 58 21.5	− 28.5	Y.	
2	. . .	. .	. . .	+ 1 54.7	N. 11 47 56.2	11.5	+ 50 41 46.9	− 39.0	Y.	
3	29.884	79.0	75.8	+ 1 31.0	S. 55 1 36.8	1 18.6	− 16 9 16.2	− 24.7	Y.	
4	. . .	. .	. . .	− 3 11.2	70 1 54.9	2 30.4	− 31 10 46.1	− 21.0	Y.	
5	. . .	. .	. . .	− 49.8	72 4 16.1	2 48.6	− 33 13 25.5	− 20.2	Y.	
6	. . .	. .	. . .	− 2 35.4	22 47 30.6	23.2	+ 16 5 45.4	− 28.2	Y.	
7	29.888	78.5	75.0	+ 1 10.6	58 11 15.0	1 28.8	− 19 19 4.6	− 21.3	Y.	
8	. . .	. .	. . .	+ 24.0	53 10 30.6	1 13.6	− 14 18 5.0	− 21.2	Y.	
9	. . .	. .	. . .	− 25.0	55 34 37.2	1 20.4	− 16 42 18.4	− 20.2	Y.	
10	. . .	. .	. . .	+ 1 33.2	55 11 37.1	1 19.3	− 16 19 17.2	− 19.4	Y.	
11	29.890	78.1	74.4	+ 13.6	S. 31 30 19.7	33.9	+ 7 22 45.6	− 21.7	Y.	
12	. . .	. .	. . .	− 47.2	N. 23 40 41.1	24.3	+ 62 34 44.6	− 25.7	Y.	
13	. . .	. .	. . .	+ 14.2	N. 23 39 39.7	24.2	+ 62 33 43.1	− 25.4	Y.	
14	. . .	. .	. . .	− 2 25.9	S. 25 57 37.8	27.0	+ 12 55 34.4	− 18.1	Y.	
15	. . .	. .	. . .	+ 53.3	72 26 2.6	2 52.8	− 33 35 16.2	− 13.8	Y.	
16	29.890	77.8	73.5	+ 30.3	72 25 39.6	2 52.7	− 33 34 53.1	− 13.7	Y.	
17	. . .	. .	. .	. .	. . . . .	. . .	. . . . .	. .	Y.	
18	30.000	76.0	71.7	− 1 59.4	72 38 19.9	2 56.2	− 33 47 36.9	− 24.2	D.	
19	. . .	. .	. . .	− 44.7	65 4 20.2	1 59.5	− 26 12 40.5	− 26.2	D.	
20	. . .	. .	. . .	+ 55.0	68 51 2.2	2 23.3	− 29 59 46.3	− 24.9	D.	
21	. . .	. .	. . .	− 2 24.0	70 17 42.8	2 34.7	− 31 26 38.3	− 24.4	D.	
22	30.016	75.2	70.0	− 48.2	76 54 19.5	3 55.4	− 38 4 35.7	− 22.6	D.	−1″.55 added to mean of A, B, C, D.
23	. . .	. .	. . .	− 1 13.1	63 48 54.5	1 53.3	− 24 57 8.6	− 25.7	D.	
24	. . .	. .	69.8	+ 32.3	77 50 39.1	4 13.5	− 39 1 13.4	− 22.0	D.	
25	. . .	. .	. . .	− 19.4	63 44 47.3	1 53.0	− 24 53 1.1	− 25.1	D.	
26	. . .	. .	. . .	− 25.6	S. 63 44 41.1	1 53.0	− 24 52 54.9	− 25.1	D.	
27	. . .	. .	. . .	+ 3 8.7	N. 13 1 41.4	13.0	+ 51 55 33.6	− 43.7	D.	
28	. . .	. .	. . .	+ 10.7	S. 70 50 17.3	2 39.7	− 31 59 17.8	− 22.7	D.	
29	. . .	. .	. . .	− 2.7	70 50 3.9	2 39.8	− 31 59 4.5	− 22.4	D.	
30	. . .	. .	. . .	− 1 5.1	63 59 2.6	1 54.3	− 25 7 17.7	− 23.8	D.	Circle reading recorded 341° 0′.
31	. . .	. .	. . .	+ 2 47.3	64 2 55.0	1 54.7	− 25 11 10.5	− 23.7	D.	
32	. . .	. .	. . .	+ 1 28.2	63 21 33.2	1 51.3	− 24 29 45.3	− 23.5	D.	
33	. . .	. .	. . .	− 4 27.7	74 50 38.6	3 23.9	− 36 0 23.3	− 20.7	D.	
34	30.027	73.5	68.8	+ 2 55.9	74 58 2.2	3 25.6	− 36 7 48.6	− 20.7	D.	
35	. . .	. .	. . .	− 2 47.3	62 37 16.6	1 48.0	− 23 45 25.4	− 22.6	D.	
36	. . .	. .	. . .	+ 1 15.8	54 26 20.7	1 18.4	− 15 33 59.9	− 24.0	D.	
37	. . .	. .	. . .	− 3 56.2	73 56 11.1	3 12.4	− 35 5 44.3	− 19.8	D.	
38	. . .	. .	. . .	− 3 29.0	S. 73 56 38.3	3 12.4	− 35 6 11.5	− 19.8	D.	
39	. . .	. .	. . .	+ 2 35.3	N. 27 22 15.2	29.1	+ 66 16 23.5	− 37.0	D.	
40	. . .	. .	. . .	+ 2 30.7	27 22 19.8	29.1	+ 66 16 28.1	− 36.9	D.	
41	30.035	72.8	67.9	+ 1 16.7	N. 3 43 36.3	3.7	+ 42 37 19.2	− 33.0	D.	
42	. . .	. .	. .	. . .	. . . . .	. . .	. . . . .	. .	D.	
3	30.072	75.0	70.5	− 1.1	S. 71 20 11.2	2 44.1	− 32 29 16.1	− 23.9	Y.	Circle reading recorded 151° 20′.
4	. . .	. .	. . .	− 1 1.8	68 59 7.2	2 24.7	− 30 7 52.7	− 24.2	Y.	
5	. . .	. .	70.0	− 52.3	67 59 15.4	2 17.7	− 29 7 53.9	− 24.2	Y.	
6	. . .	. .	. . .	+ 1 24.7	62 36 29.2	1 47.8	− 23 44 37.8	− 25.1	Y.	
7	30.076	74.5	69.8	− 1 6.5	S. 60 29 0.5	1 38.7	− 21 37 0.0	− 25.4	Y.	
8	. . .	. .	. . .	− 1 24.6	N. 2 1 14.5	2.0	+ 40 54 55.7	− 40.5	Y.	
9	. . .	. .	. . .	− 1 43.6	S. 66 13 25.2	2 6.6	− 27 21 52.6	− 23.0	Y.	
0	. . .	. .	. . .	− 1 23.7	N. 6 36 18.9	6.5	+ 45 30 4.6	− 39.3	Y.	
1	30.084	73.4	69.4	+ 1 26.9	S. 55 1 36.6	1 20.1	− 16 9 17.5	− 24.6	Y.	
2	. . .	. .	. . .	− 2 39.5	N. 1 22 32.6	1.3	+ 40 16 13.1	− 36.0	Y.	
3	. . .	. .	. . .	− 56.0	N. 1 20 49.1	1.3	+ 40 14 29.6	− 36.0	Y.	
4	. . .	. .	. . .	+ 2 50.5	S. 56 32 56.3	1 24.8	− 17 40 41.9	− 23.0	Y.	
5	. . .	. .	. . .	+ 41.5	N. 4 4 14.6	4.0	+ 42 57 57.8	− 34.2	Y.	
6	. . .	. .	. . .	− 19.3	N. 4 5 15.4	4.0	+ 42 58 58.6	− 33.9	Y.	
7	30.084	73.5	69.2	+ 0.1	S. 62 40 2.1	1 48.3	− 23 48 11.2	− 20.6	Y.	
8	. . .	. .	. . .	+ 34.7	63 5 41.9	1 50.3	− 24 13 53.0	− 20.0	Y.	
9	. . .	. .	. . .	− 2 10.1	68 2 58.0	2 18.5	− 29 11 37.3	− 18.4	Y.	Faint.
0	. . .	. .	. . .	− 2 8.5	63 42 58.2	1 53.4	− 24 51 12.4	− 18.2	Y.	
1	30.086	73.0	68.2	+ 10.5	S. 31 30 18.8	34.5	+ 7 22 45.9	− 22.2	Y.	
2	. . .	. .	. . .	− 2 8.4	N. 0 17 0.0	0.3	+ 39 10 39.5	− 25.1	Y.	
3	. . .	. .	. . .	+ 1 13.8	S. 8 51 20.4	8.8	+ 30 2 10.0	− 22.9	Y.	
4	. . .	. .	. . .	− 2 23.5	5 7 44.5	5.1	+ 33 45 49.6	− 21.3	Y.	
5	30.090	72.5	67.0	+ 23.4	S. 24 20 32.5	25.5	+ 14 32 41.2	− 17.5	Y.	
6	. . .	. .	. .	. .	. . . . .	. .	. . . . .	. .	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES. A.			E.	C.	D.	E.	F.	Mean.	MICROMETER. Observed.	Nadir cor.	Corr.
						°	′	″	″	″	″	″	″	″	r.	r.	
1868. June 24	1	Lacaille 5872 . .	. .	3	III-VII.	351	30	6.8	0.2	0.0	10.1	58.1	2.3	2.92	32.816	+ 0.032	[illegible]
	2	Lacaille 5883 . .	. .	3	III-VII.	"	"	"	"	"	"	"	"	"	34.036	. .	[illegible]
	3	Lacaille 5941 . .	. .	3	III-VII.	"	"	"	"	"	"	"	"	"	29.741	. .	[illegible]
	4	Lacaille 5975 . .	. .	3	III-VII.	350	30	9.2	2.2	3.0	13.9	0.8	6.0	5.85	35.788	. .	[illegible]
	5	O. Arg. N. 14695 .	9.0	3	V, 5, VI.	242	30	9.0	2.0	5.0	11.6	4.1	. .	6.64	24.481	. .	[illegible]
	6	B. A. C. 4857 . .	. .	3	III-VII.	342	25	9.0	1.8	4.0	12.0	2.0	5.3	5.68	28.301	. .	[illegible]
	7	O. Arg. S. 14046 .	. .	3	III-VII.	347	50	10.1	3.7	5.0	13.7	2.0	7.0	6.92	28.123	. .	[illegible]
	8	Weisse (2) VIV, 1162	9.0	2	VI-VIII.	275	0	10.7	4.0	6.0	17.5	7.0	13.9	9.85	32.808	. .	[illegible]
	9	Weisse XV, 10 . .	7.0	3	IV-VI.	323	45	9.0	2.1	2.8	11.1	3.9	6.9	5.97	28.393	. .	[illegible]
	10	O. Arg. S. 14428 .	. .	3	III-VII.	339	5	9.0	2.2	3.9	12.6	2.1	5.0	5.80	27.936	. .	[illegible]
	11	O. Arg. S. 14508 .	8.5	3	III-V.	345	40	8.9	2.0	2.2	10.1	0.8	4.0	4.67	32.769	. .	[illegible]
	12	B. A. C. 5666 . .	7.0	3	V, VII.	"	"	"	"	"	"	"	"	"	27.251	. .	[illegible]
	13	Radcliffe 3387 . .	. .	2	1-5.	274	25	10.6	3.7	5.1	17.1	7.0	13.0	9.42	29.465	. .	[illegible]
	14	O. Arg. S. 14669 .	. .	3	V, IX.	346	40	10.0	3.9	5.0	14.0	2.0	6.3	6.87	35.510	. .	[illegible]
	15	Weisse (2) XV, 822	8.0	3	IV, VI.	275	45	10.2	4.7	4.9	18.2	7.3	12.9	9.70	32.580	. .	[illegible]
	16	Weisse XV, 825 . .	8.0	3	III-VII.	321	30	10.0	4.0	4.6	14.0	4.0	8.3	7.48	26.688	. .	[illegible]
	17	B. A. C. 5310 . .	. .	3	IV, VI.	281	55	10.3	4.0	5.0	16.0	5.8	10.7	8.63	35.553	. .	[illegible]
	18	O. Arg. N. 15864 .	. .	2	VI, VII.	248	50	9.0	3.3	7.0	19.8	6.0	12.0	9.52	33.105	. .	[illegible]
	19	O. Arg. N. 15876 .	. .	1	VIII.	"	"	"	"	"	"	"	"	"	35.503	. .	[illegible]
	20	Nadir	. .	5	. .	100	0	8.2	4.8	2.1	16.7	5.1	10.3	7.87	30.099	. .	. .
26	21	B. A. C. 4671 . .	. .	3	V-IX.	345	40	8.0	0.2	0.7	8.0	59.8	3.0	3.28	31.611	+ 0.021	[illegible]
	22	Lacaille 5860 . .	. .	3	III-VII.	0	0	9.1	3.0	2.2	14.8	2.0	5.9	6.17	26.653	. .	[illegible]
	23	Lacaille 5897 . .	. .	3	III-VII.	346	20	9.6	1.9	3.0	10.9	3.0	5.2	5.60	34.902	. .	[illegible]
	24	B. A. C. 4767 . .	6.0	3	V, VI, VIII.	343	5	9.3	2.1	2.0	9.8	3.0	5.1	5.22	31.558	. .	[illegible]
	25	O. Arg. S. 13757 .	. .	3	III-VII.	344	5	10.0	3.2	3.5	12.1	4.0	6.8	6.60	30.011	. .	[illegible]
	26	Anon. 14h. 49m. 17s. .	. .	3	III-VII.	345	10	11.6	4.8	5.1	13.0	5.0	6.3	7.63	34.669	. .	[illegible]
	27	Anon. 14h. 57m. 36s. .	. .	3	III-VII.	"	"	"	"	"	"	"	"	"	26.897	. .	[illegible]
	28	Anon. 14h. 59m. 4s. .	. .	3	V-IX.	"	"	"	"	"	"	"	"	"	29.451	. .	[illegible]
	29	O. Arg. N. 15138 .	. .	3	IV-VI.	271	55	8.6	2.0	2.9	13.8	6.0	10.1	7.23	31.022	. .	[illegible]
	30	Anon. 15h. 23m. 24s. .	. .	3	III-VII.	342	5	9.0	1.9	3.0	11.3	2.8	4.9	5.48	32.172	. .	[illegible]
	31	Radcliffe 3415 . .	. .	3	IV-VI.	278	40	7.2	0.1	0.7	12.2	3.7	10.0	5.65	35.082	. .	[illegible]
	32	Anon. 15h. 37m. 4s. .	8.7	3	III-VII.	334	50	10.0	2.0	3.1	10.8	3.8	7.0	6.12	27.921	. .	[illegible]
	33	Weisse XV, 792 . .	9.0	3	III-VII.	333	15	10.3	4.0	4.1	13.1	5.7	6.9	7.35	25.472	. .	[illegible]
	34	Anon. 15h. 14m. 46s. .	8.0	3	III-VII.	"	"	"	"	"	"	"	"	"	30.833	. .	[illegible]
	35	B. A. C. 5294 . .	. .	3	III-VII.	345	30	10.2	1.8	3.9	10.1	1.8	4.7	5.42	30.608	. .	[illegible]
	36	O. Arg. S. 15108 .	. .	3	III-VII.	"	"	"	"	"	"	"	"	"	26.636	. .	[illegible]
	37	O. Arg. S. 15242 .	8.0	3	II-IV.	339	25	11.0	3.8	5.6	13.4	3.0	6.0	7.13	26.239	. .	[illegible]
	38	O. Arg. S. 15240 .	5.5	3	VI-VIII.	"	"	"	"	"	"	"	"	"	34.779	. .	[illegible]
	39	Weisse XVI, 176 .	. .	3	III-VII.	332	0	11.0	3.0	4.0	12.2	4.2	7.0	6.90	31.427	. .	[illegible]
	40	Nadir	. .	5	. .	100	0	11.9	7.0	5.0	18.2	9.1	14.1	10.88	30.206	. .	.
27	41	106 Virginis	6.0	3	III-VII.	325	10	7.3	4.9	0.0	8.9	2.8	7.1	5.17	27.983	— 0.007	[illegible]
	42	ζ Bootis	5.0	3	III-VII.	304	35	9.2	5.9	2.8	11.3	5.7	12.0	7.82	29.471	. .	[illegible]
	43	58 Hydræ	6.0	3	IV-VI.	346	15	7.9	4.7	2.8	10.1	1.2	6.2	5.48	27.899	. .	[illegible]
	44	14 Libræ	6.0	3	III-VII.	343	45	7.7	5.1	1.4	10.4	1.5	6.2	5.38	27.557	. .	[illegible]
	45	Lacaille 6219 . .	6.0	3	III-VII.	348	55	7.2	6.4	4.0	12.9	2.1	6.0	6.43	32.765	. .	[illegible]
	46	O. Arg. S. 14324 . .	6.6	3	III-VII.	342	20	10.2	7.9	6.2	14.7	5.8	8.9	8.95	28.884	. .	[illegible]
	47	O. Arg. N. 15259 . .	8.3	3	IV-VI.	251	35	3.4	0.4	2.2	11.3	2.2	9.6	4.85	34.099	. .	[illegible]
	48	O. Arg. S. 14544 . .	7.0	2	VII, IX.	339	45	8.6	6.8	4.7	14.2	3.4	7.9	7.60	26.450	. .	[illegible]
	49	Nadir	. .	5	. .	100	0	5.0	4.8	59.2	13.0	3.4	9.9	5.88	30.075	. .	. .
	50	Weisse XV, 1081 .	7.5	2	I, IX.	312	30	11.1	7.3	6.1	12.6	7.1	11.1	9.22	34.557	. .	[illegible]
	51	Weisse XV, 1086 .	. .	3	IV-VI.	"	"	"	"	"	"	"	"	"	29.638	. .	[illegible]
	52	O. Arg. N. 16057 .	7.2	3	III-VII.	265	20	6.4	4.7	5.1	16.1	5.7	14.8	8.80	30.917	. .	[illegible]
	53	Weisse XVI, 393 .	7.3	3	III-VII.	332	10	5.4	3.8	1.8	9.2	1.4	6.1	4.62	32.047	. .	[illegible]
	54	Lacaille 6891 . .	. .	3	IV-VI.	352	45	3.4	2.7	0.4	8.7	58.1	2.7	2.67	27.960	. .	[illegible]
	55	B. A. C. 5576 . .	7.5	3	III-VII.	347	45	5.8	4.5	3.2	12.1	0.2	5.1	5.15	33.601	. .	[illegible]
	56	Anon. 16h. 41m. 34s.	8.5	2	I, IX.	343	15	7.8	5.7	4.8	11.0	4.7	7.0	6.83	25.918	. .	[illegible]
	57	18 Ophiuchi	7.0	3	III-VII.	"	"	"	"	"	"	"	"	"	28.029	. .	[illegible]
	58	B. A. C. 5700, (1st *)	7.5	1	IX.	338	10	6.9	3.8	1.9	10.0	0.1	4.5	4.53	26.639	. .	[illegible]
	59	B. A. C. 5700, (2d *)	5.5	3	III-VII.	"	"	"	"	"	"	"	"	"	26.687	. .	[illegible]
	60	O. Arg. S. 16256 .	7.5	3	III-VII.	"	"	"	"	"	"	"	"	"	30.104	. .	[illegible]
	61	Dorpat 2119 . . .	7.0	3	III-VII.	332	40	8.4	6.5	4.8	13.7	4.7	8.3	7.73	35.161	. .	[illegible]
	62	Weisse XVII, 115 .	8.5	3	III-VII.	304	25	10.8	8.6	5.9	15.8	8.1	13.6	10.47	28.936	. .	[illegible]
29	63	5 Libræ	. .	3	III-VII.	333	45	7.8	59.0	58.8	6.0	0.0	3.1	2.45	27.177	+ 0.003	[illegible]
	64	12 Libræ	. .	3	III-VII.	343	0	9.0	1.0	1.6	8.8	2.0	5.0	4.57	34.091	. .	[illegible]
	65	δ Libræ	. .	3	III-VII.	326	50	8.3	1.2	0.0	7.0	3.0	6.1	4.27	25.840	. .	[illegible]
	66	Weisse XV, 1129 .	7.0	3	III-VII.	318	20	8.0	59.1	59.5	7.0	2.0	6.0	3.60	29.191	. .	[illegible]

Number.*	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith Distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. . .	. .	. .	− 1 29.4	S. 71 28 33.5	2 47.8	− 32 37 42.1	− 24.0	D.	
2	30.130	74.0	64.1	− 2 35.7	71 27 27.2	2 47.7	− 32 36 35.7	− 23.9	D.	
3	. . .	. .	. .	+ 6.9	71 30 9.8	2 48.1	− 32 39 18.7	− 23.7	D.	
4	. . .	. .	. .	− 3 2.4	S. 70 27 3.4	2 38.6	− 31 36 2.8	− 23.8	D.	
5	. . .	. .	. .	+ 2 52.0	N. 37 27 1.4	43.5	+ 76 21 24.1	− 48.7	D.	— 0.″26 added to mean of A, B, C, D.
6	30.132	73.0	64.0	+ 52.0	S. 62 25 57.6	1 48.4	− 23 34 6.8	− 25.5	D.	
7	. . .	. .	. .	+ 57.6	S. 67 51 4.5	2 18.7	− 28 59 44.0	− 23.6	D.	
8	. . .	. .	. .	− 1 28.2	N. 5 1 18.4	5.0	+ 43 55 2.6	− 41.7	D.	
9	. . .	. .	64.0	+ 49.3	S. 43 45 55.2	54.4	− 4 53 10.4	− 29.0	D.	
10	. . .	. .	. .	+ 1 3.5	59 6 9.3	1 34.7	− 20 14 4.8	− 24.5	D.	
11	. . .	. .	. .	− 1 27.9	65 38 36.7	2 4.9	− 26 47 2.4	− 22.7	D.	
12	. . .	. .	. .	+ 1 25.0	S. 65 41 29.6	2 5.2	− 26 49 55.6	− 22.6	D.	
13	. . .	. .	. .	+ 15.7	N. 5 34 34.9	5.6	+ 44 28 19.7	− 38.2	D.	
14	. . .	. .	. .	− 2 53.7	S. 66 37 13.1	2 10.7	− 27 45 44.6	− 21.7	D.	
15	. . .	. .	. .	− 1 21.7	N. 4 16 12.0	4.3	+ 43 9 55.5	− 36.3	D.	
16	. . .	. .	. .	+ 1 42.7	S. 41 31 50.1	50.3	− 2 39 1.2	− 26.0	D.	
17	. . .	. .	. .	− 2 54.8	S. 1 52 13.8	1.9	+ 37 1 23.5	− 32.4	D.	Whole rev. recorded 25.
18	. . .	. .	. .	− 1 37.3	N. 31 11 27.8	34.4	+ 70 5 41.4	− 35.3	D.	
19	30.148	70.3	64.0	− 2 50.5	N. 31 12 41.0	34.5	+ 70 6 54.7	− 35.3	D,	
20	. . .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
21	30.052	73.7	71.8	− 51.3	S. 65 39 11.9	2 2.8	− 26 47 35.5	− 26.0	D.	
22	. . .	. .	71.1	+ 1 43.8	80 1 49.9	5 6.7	− 41 13 17.4	− 21.8	D.	
23	. . .	. .	. .	− 2 34.3	66 17 31.3	2 6.7	− 27 25 58.8	− 25.3	D.	
24	. . .	. .	. .	− 49.5	63 4 15.7	1 49.7	− 24 12 26.2	− 26.1	D,	
25	. . .	. .	. .	− 1.2	64 5 5.4	1 54.8	− 25 13 21.0	− 25.3	D.	
26	30.066	73.0	69.2	− 2 27.0	65 7 40.6	2 0.4	− 26 16 1.8	− 24.2	D.	
27	. . .	. .	. .	+ 1 36.3	65 11 43.9	2 0.9	− 26 20 5.6	− 23.8	D.	
28	. . .	. .	. .	+ 16.4	S. 65 10 24.0	2 0.8	− 26 18 45.6	− 23.7	D.	
29	. . .	. .	. .	− 32.5	N. 8 5 25.3	8.0	+ 46 59 12.5	− 41.4	D.	
30	30.060	72.3	68.0	− 1 8.8	S. 62 3 56.6	1 45.7	− 23 12 3.1	− 23.0	D.	
31	. . .	. .	. .	− 2 39.6	N. 1 22 34.0	1.4	+ 40 16 14.6	− 36.6	D.	
32	. . .	. .	. .	+ 1 4.3	S. 54 51 10.4	1 19.9	− 15 58 51.1	− 23.7	D.	
33	. . .	. .	. .	+ 2 21.0	53 17 28.3	1 15.6	− 14 25 4.7	− 23.6	D.	
34	. . .	. .	66.4	− 26.8	53 14 40.5	1 15.4	− 14 22 16.7	− 23.4	D.	
35	. . .	. .	. .	− 19.9	65 29 45.5	2 3.2	− 26 38 9.5	− 20.3	D.	
36	. . .	. .	. .	+ 1 44.5	65 31 49.9	2 3.3	− 26 40 14.0	− 20.1	D.	
37	. . .	. .	. .	+ 1 56.7	59 27 3.8	1 35.4	− 20 35 0.0	− 20.8	D.	
38	. . .	. .	. .	− 2 30.3	59 22 36.8	1 35.1	− 20 30 32.7	− 20.8	D.	
39	30.040	71.0	65.7	− 45.4	51 59 21.5	1 12.2	− 13 6 54.5	− 21.3	D.	
40	. . .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
41	29.890	74.3	72.3	+ 1 3.3	45 11 8.4	55.8	− 6 18 25.0	− 31.4	Y.	
42	. . .	. .	. .	+ 16.9	24 35 24.7	25.4	+ 14 17 49.1	− 36.8	Y.	
43	. . .	. .	. .	+ 1 5.9	66 16 11.3	2 5.7	− 27 24 37.8	− 24.2	Y.	
44	29.888	74.2	71.3	+ 1 16.5	63 46 21.8	1 52.3	− 24 54 34.9	− 24.6	Y.	
45	. . .	. .	. .	− 1 26.5	68 53 39.9	2 23.0	− 30 2 23.7	− 22.8	Y.	
46	. . .	. .	. .	+ 35.0	S. 62 20 43.9	1 45.8	− 23 28 50.5	− 24.3	Y.	
47	. . .	. .	. .	− 2 7.9	N. 28 27 3 1	30.2	+ 67 21 12.5	− 43.2	Y.	
48	29.890	73.7	70.2	+ 1 51.2	S. 59 46 58.8	1 35.3	− 20 54 54.9	− 23.9	Y.	
49	. . .	. .	. .	. .	. . . . .	. .	. . . . .	. .	Y.	
50	. . .	. .	. .	− 2 22.3	32 27 46.9	35.5	+ 6 25 16.8	− 26.7	Y.	
51	29.896	73.5	69.0	+ 11.5	S. 32 30 20.7	35.6	+ 6 22 42.9	− 26.7	Y.	
52	. . .	. .	. .	− 28.0	N. 14 40 19.2	14.6	+ 53 34 13.0	− 32.2	Y.	
53	. . .	. .	. .	− 1 3.9	S. 52 9 0.7	1 11.8	− 13 16 33.3	− 20.2	Y.	
54	. . .	. .	. .	+ 1 4.0	72 46 6.6	2 58.1	− 33 55 25.5	− 16.2	Y.	
55	29.884	73.1	68.2	− 1 52.7	67 43 12.4	2 15.5	− 28 51 48.7	− 16.4	Y.	
56	. . .	. .	. .	+ 2 7.3	63 17 14.1	1 50.6	− 24 25 25.5	− 16.4	Y.	
57	. . .	. .	. .	+ 1 1.7	63 16 8.5	1 50.5	− 24 24 19.8	− 16.4	Y.	
58	. . .	. .	. .	+ 1 43.8	58 11 48.3	1 29.9	− 19 19 39.0	− 16.4	Y.	
59	. . .	. .	. .	+ 1 45.2	58 11 49.7	1 29.9	− 19 19 40.4	− 16.4	Y.	
60	. . .	. .	. .	− 3.2	58 10 1.3	1 29.8	− 19 17 51.9	− 15.8	Y.	
61	. . .	. .	. .	− 2 41.4	52 37 26.3	1 13.0	− 13 45 0.1	− 16.1	Y.	Circle reading recorded 132° 40′.
62	29.878	72.8	68.5	+ 33.6	24 25 44.0	25.4	+ 14 27 29.8	− 18.3	Y.	Degrees and minutes of circle reading not recorded.
63	30.176	76.5	73.2	+ 1 28.2	53 46 30.6	1 16.2	− 14 54 7.6	− 28.1	D.	
64	. . .	. .	. .	− 2 8.3	62 57 56.2	1 49.2	− 24 6 6.2	− 25.0	D.	Whole rev. recorded 33.
65	. . .	. .	. .	+ 2 10.1	46 52 14.3	59.7	− 7 59 34.8	− 29.2	D.	
66	. . .	. .	. .	+ 25.2	S. 38 20 28.8	44.2	+ 0 32 26.2	− 31.1	D.	Hazy.

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES. A.	B.	C.	D.	E.	F.	Mean.	MICROMETER. Observed.	Nadir cor.	Corr'd
						° ′ ″	″	″	″	″	″	″	r.	r.	r.
1868. June 29	1	B. A. C. 5006	. .	3	III–VII.	344 35 9.0	59.9	1.0	8.4	1.5	5.1	4.15	32.866	. .	32.874
	2	Radcliffe 3411	7.0	3	III–VII.	274 25 9.0	1.0	2.7	11.8	6.0	12.0	7.08	33.804	. .	33.797
	3	μ Serpentis	. .	3	III–VII.	321 55 9.0	1.9	2.0	9.1	2.9	7.0	5.32	31.712	. .	31.716
	4	γ Serpentis	. .	3	III–VII.	302 50 9.9	1.1	2.9	10.0	5.2	8.8	6.32	35.080	. .	35.080
	5	B. A. C. 5333	. .	3	III–VII.	338 10 10.1	3.0	2.7	11.0	2.2	6.0	5.83	27.867	. .	27.874
	6	c^1 Scorpii	. .	3	III–VII.	346 55 11.0	3.7	5.0	13.0	3.0	7.1	7.13	28.799	. .	28.805
	7	Nadir	. .	3	. .	100 0 11.0	5.1	3.0	16.0	7.3	15.0	9.57	30.183	. .	. .
July 2	8	Anon. 15h. 23m. 33s.	9.0	3	III–VII.	351 0 9.9	4.7	3.9	11.1	3.1	10.8	7.25	27.520	+ 0.035	27.552
	9	B. A. C. 5167	7.2	3	III–VII.	347 45 6.3	1.0	0.2	6.4	59.4	7.2	3.42	32.412	. .	32.453
	10	β Serpentis	5.0	3	III–VII.	303 5 9.0	3.9	1.4	7.0	4.4	11.9	6.27	34.165	. .	34.197
	11	A Scorpii	6.0	3	III–VII.	343 50 11.5	6.1	3.7	11.3	5.1	12.1	8.30	34.737	. .	34.777
	12	49 Libræ	6.0	3	III–VII.	335 0 8.4	2.4	0.7	5.6	2.6	9.0	4.78	28.427	. .	28.465
	13	B. A. C. 5359	5.5	3	III–VII.	308 40 8.5	2.2	0.0	5.2	3.3	10.9	5.02	33.557	. .	33.590
	14	B. A. C. 5416	. .	3	III–VII.	349 10 12.4	9.4	7.1	14.5	6.3	13.8	10.58	33.268	. .	33.309
	15	β Herculis	5.0	2	IV, VI.	297 5 6.1	1.4	58.1	oblit.	1.2	9.0	1.96	27.273	. .	27.306
	16	B. A. C. 5567	6.0	3	III–VII.	339 0 9.7	3.9	3.8	8.9	2.8	9.3	6.40	28.270	. .	28.306
	17	ε Scorpii	4.8	3	III–VII.	352 55 8.7	5.4	2.9	10.1	1.2	8.9	6.20	32.611	. .	32.653
	18	B. A. C. 5672	. .	2	VII, IX.	349 40 11.1	7.4	6.8	13.6	5.1	11.9	9.32	36.598	. .	36.645
	19	O. Arg. N. 16707	8.5	3	IV–VI.	258 55 11.3	5.4	6.2	15.5	8.3	18.4	10.85	32.397	. .	32.427
	20	O. Arg. N. 16722	8.5	1	V.	" " "	"	"	"	"	"	"	32.207	. .	32.242
	21	Weisse XVII, 107	7.7	2	V, IX.	304 10 8.8	2.1	0.9	8.3	4.9	11.2	6.03	31.832	. .	31.855
	22	Weisse XVII, 117	7.0	2	V, IX.	" " "	"	"	"	"	"	"	28.936	. .	28.960
	23	O. Arg. S. 16749	9.0	3	III–VII.	347 25 7.9	3.3	2.2	8.2	0.0	8.9	5.08	33.741	. .	33.782
	24	B. A. C. 5914	6.7	3	III–VII.	351 50 8.7	5.1	4.2	11.9	2.3	9.2	6.90	33.502	. .	33.544
	25	B. A. C. 5960	7.0	2	I, IX.	351 0 12.2	6.8	6.1	14.4	4.6	10.9	9.17	33.490	. .	33.556
	26	Anon. 17h. 31m. 37s.	7.3	3	III–VII.	" " "	"	"	"	"	"	"	27.100	. .	27.142
	27	B. A. C. 5964	6.0	1	IX.	" " "	"	"	"	"	"	"	31.613	. .	31.670
	28	Anon. 17h. 46m. 3s.	6.5	2	III, V.	353 20 12.4	8.7	7.6	15.5	7.1	13.6	10.82	28.094	. .	28.137
	29	Anon. 17h. 46m. 46s.	6.0	1	IX.	" " "	"	"	"	"	"	"	36.845	. .	36.904
	30	Nadir	. .	5	. .	100 0 10.2	6.4	2.9	13.8	6.1	17.0	9.40	30.145	. .	.
3	31	B. A. C. 4912	. .	3	III–VII.	351 40 9.0	0.0	2.0	8.3	0.8	6.1	4.37	36.513	— 0.028	36.492
	32	ν^1 Libræ	. .	3	IV–VI.	334 35 7.8	55.4	56.0	3.0	58.7	3.8	0.78	26.218	. .	26.192
	33	Lacaille 6289	. .	3	III–VII.	357 55 10.4	0.6	2.0	10.9	2.0	6.8	5.45	32.463	. .	32.443
	34	Weisse XV, 254	9.0	1	V.	332 0 11.0	59.0	1.0	7.0	2.8	8.2	4.83	31.762	. .	31.734
	35	Lalande 28213	. .	3	III–V.	340 20 11.0	0.8	1.0	9.8	2.0	7.1	5.28	34.904	. .	34.881
	36	Anon. 15h. 29m. 51s.	6.5	3	III–VII.	340 35 11.4	0.4	2.9	10.0	3.4	8.2	6.05	34.421	. .	34.317
	37	Lacaille 6499	. .	3	III–VII.	350 0 9.1	58.0	0.0	8.8	59.8	6.0	3.62	26.399	. .	26.377
	38	δ Coronæ Borealis	. .	3	IV–VI.	292 25 11.0	0.1	1.0	8.0	5.0	12.1	6.20	30.644	. .	30.615
	39	Anon. 15h. 55m. 21s.	. .	3	III–VII.	343 10 11.2	0.9	2.0	9.0	3.0	9.0	5.85	31.298	. .	31.275
	40	Weisse (2) XV, 1561	. .	3	IV–VI.	276 30 12.0	0.0	3.0	11.9	6.0	15.1	8.00	29.779	. .	20.748
	41	Nadir	. .	5	. .	100 0 11.8	2.0	1.0	12.3	5.8	15.0	7.98	30.163	. .	. .
	42	Weisse (2) XVI, 788	7.0	3	III–VII.	285 5 11.8	59.0	2.0	10.2	5.7	13.7	7.07	29.407	. .	29.372
	43	Radcliffe 3589	. .	2	2, VI.	239 40 11.5	58.0	4.0	14.3	5.2	14.8	7.97	31.079	. .	31.037
9	44	23 Ophiuchi	6.5	3	V–IX.	324 50 6.9	3.2	1.4	6.2	2.5	6.4	4.43	32.398	+ 0.109	32.505
	45	B. A. C. 5774	5.5	3	III–VII.	319 50 6.2	1.1	1.0	5.6	0.0	5.3	3.20	35.897	. .	36.006
	46	Weisse XVII, 107	8.5	1	VII.	304 10 5.8	1.5	0.8	7.1	2.5	6.5	4.03	31.762	. .	31.862
	47	Weisse XVII, 117	8.0	1	IX.	" " "	"	"	"	"	"	"	28.907	. .	28.994
	48	O. Arg. N. 17136	8.2	3	IV–VI.	241 25 4.4	0.2	2.9	11.3	1.7	8.9	4.90	30.268	. .	30.363
	49	Anon. 17h. 31m. 36s.	7.0	1	V.	351 0 6.6	2.1	3.5	9.5	0.3	4.2	4.37	26.831	. .	26.940
	50	B. A. C. 5964	6.0	1	V.	" " "	"	"	"	"	"	"	31.362	. .	31.471
	51	Lacaille 7424	6.0	3	IV–VI.	356 55 5.0	2.6	3.2	9.9	59.1	oblit.	3.99	33.763	. .	33.874
	52	B. A. C. 7433	7.5	3	IV–VI.	" " "	"	"	"	"	"	"	30.693	. .	30.804
	53	Anon. 17h. 39m. 54s.	8.0	2	VII, IX.	" " "	"	"	"	"	"	"	32.284	. .	32.411
	54	Lacaille 7514	6.5	3	III–VII.	0 15 11.1	7.5	7.9	15.8	4.8	8.8	9.32	27.051	. .	27.150
	55	Lacaille 7546	6.5	3	III–VII.	356 20 10.9	8.5	8.9	16.3	5.2	9.2	9.83	33.489	. .	33.600
	56	Anon. 17h. 57m. 13s.	7.0	2	VII, IX.	" " "	"	"	"	"	"	"	30.436	. .	30.562
	57	Anon. 18h. 5m. 10s.	7.0	3	III–VII.	353 30 8.7	5.8	5.3	13.1	2.7	7.0	7.10	33.613	. .	33.720
	58	Nadir	. .	5	. .	100 0 8.0	5.1	3.7	12.9	5.2	11.6	7.75	30.018	. .	.
13	59	Lacaille 6376	. .	3	III–VII.	355 9 53.1	42.1	45.3	49.7	45.1	49.0	47.38	32.364	+ 0.056	32.425
	60	40 Libræ	. .	3	III–VII.	348 10 7.0	55.1	59.0	2.3	57.1	2.8	0.55	26.264	. .	26.326
	61	B. A. C. 5795	. .	3	III–VII.	348 30 9.0	57.9	1.1	5.2	0.0	5.0	3.03	32.282	. .	32.344
	62	Weisse XV, 848	8.0	3	III–VII.	326 30 9.8	57.8	59.0	2.2	2.5	5.8	2.85	27.648	. .	27.705
	63	O. Arg. S. 15072	. .	3	III–VII.	339 29 9.3	58.9	2.0	6.7	2.7	6.1	4.28	24.846	. .	24.900
	64	O. Arg. S. 15199	8.0	3	IV–VI.	340 25 10.5	1.1	2.2	9.0	4.1	7.2	5.68	38.506	. .	38.563
	65	O. Arg. S. 15227	. .	3	IV–VI.	" " "	"	"	"	"	"	"	35.279	. .	35.339

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	30.188	76.0	72.8	− 1 30.0	S. 64 34 34.1	1 57.2	− 25 41 52.1	− 23.5	D.	Unsteady. Whole rev. recorded 33.
2	. .	. .	. .	− 1 58.9	N. 5 36 51.9	5.5	+ 44 30 36.6	− 38.2	D.	
3	. .	. .	71.9	− 53.7	S. 41 54 11.6	50.3	− 3 1 22.7	− 26.5	D.	
4	. .	. .	. .	− 2 39.0	22 47 27.3	23.6	+ 16 5 48.3	− 30.0	D.	
5	. .	. .	. .	+ 1 6.5	58 11 12.3	1 30.3	− 19 19 3.4	− 21.3	D.	
6	30.198	75.0	71.1	+ 37.3	66 55 44.4	2 11.1	− 28 4 16.3	− 19.0	D.	Barometer and thermometers read at 16h. 15m.
7	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
8	30.212	83.4	81.7	+ 1 16.3	71 1 23.5	2 38.6	− 32 10 22.9	− 20.8	Y.	Hazy.
9	. .	. .	. .	− 1 16.8	67 43 46.6	2 13.7	− 28 52 21.1	− 20.9	Y.	
10	. .	. .	. .	− 2 11.4	23 2 54.8	23.5	+ 15 50 20.9	− 31.7	Y.	
11	. .	. .	. .	− 2 29.5	63 47 38.8	1 51.6	− 24 55 51.2	− 21.1	Y.	
12	30.214	83.0	80.7	+ 48.1	55 0 52.8	1 18.7	− 16 8 32.3	− 22.6	Y.	
13	. .	. .	. .	− 1 52.4	28 38 12.6	30.1	+ 10 14 56.5	− 27.9	Y.	
14	. .	. .	. .	− 1 43.6	69 8 26.9	2 23.8	− 30 17 11.5	− 18.2	Y.	Hazy; faint.
15	30.212	82.5	80.0	+ 1 24.3	17 6 26.2	17.0	+ 21 46 56.0	− 27.1	Y.	
16	. .	. .	. .	+ 52.9	59 0 59.3	1 31.8	− 20 8 51.9	− 18.1	Y.	
17	. .	. .	. .	− 1 23.0	72 53 43.2	2 57.4	− 34 3 1.4	− 14.8	Y.	
18	. .	. .	. .	− 3 28.0	S. 69 36 41.3	2 27.6	− 30 45 29.7	− 14.9	Y.	
19	. .	. .	. .	− 1 16.0	N. 21 6 5.2	21.4	+ 60 0 5.8	− 26.1	Y.	
20	30.222	82.0	79.2	− 1 10.2	N. 21 5 59.4	21.4	+ 60 0 0.0	− 25.9	Y.	
21	. .	. .	. .	− 58.1	S. 24 9 7.9	24.9	+ 14 44 6.4	− 19.4	Y.	
22	. .	. .	. .	+ 32.5	24 10 38.5	24.9	+ 14 42 35.8	− 19.4	Y.	
23	. .	. .	. .	− 1 58.4	67 23 6.6	2 12.2	− 28 31 39.6	− 12.4	Y.	Very faint.
24	. .	. .	. .	− 1 51.0	71 48 15.9	2 46.9	− 32 57 23.6	− 11.2	Y.	
25	. .	. .	. .	− 1 51.3	70 58 17.8	2 39.3	− 32 7 17.9	− 10.6	Y.	
26	. .	. .	. .	+ 1 29.5	71 1 38.6	2 39.8	− 32 10 39.2	− 10.6	Y.	
27	30.216	81.4	77.8	− 52.3	70 59 16.8	2 39.5	− 32 8 17.1	− 10.5	Y.	
28	. .	. .	. .	+ 58.3	73 [illegible]1 9.1	3 3.4	− 34 30 33.3	− 9.0	Y.	
29	. .	. .	. .	− 3 36.1	73 16 34.7	3 2.5	− 34 25 58.0	− 8.9	Y.	
30	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
31	30.192	84.0	82.9	− 3 23.2	71 36 41.1	2 43.5	− 32 45 45.4	− 22.5	D.	
32	. .	. .	. .	+ 1 59.2	54 36 59.9	1 17.3	− 15 44 38.0	− 26.7	D.	
33	. .	. .	81.6	− 1 16.5	77 53 48.9	4 10.3	− 39 4 20.0	− 19.9	D.	
34	. .	. .	. .	− 54.3	51 59 10.5	1 10.4	− 13 6 41.7	− 26.4	D.	
35	. .	. .	. .	− 2 32.8	60 17 32.4	1 36.3	− 21 25 29.5	− 23.6	D.	
36	. .	. .	. .	− 2 17.6	60 32 48.4	1 37.3	− 21 40 46.5	− 23.0	D.	
37	30.210	83.7	81.0	+ 1 53.4	70 1 57.0	2 30.4	− 31 10 48.2	− 20.2	D.	
38	. .	. .	. .	− 19.3	12 24 46.9	12.1	+ 26 28 40.2	− 33.7	D.	
39	. .	. .	. .	− 39.9	S. 63 9 25.9	1 48.6	− 24 17 35.3	− 20.4	D.	
40	. .	. .	. .	+ 7.9	N. 3 29 24.1	3.4	+ 42 23 26.7	− 34.2	D.	
41	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
42	. .	. .	. .	+ 19.7	S. 5 5 26.7	4.9	+ 33 48 7.6	− 28.9	D.	
43	30.210	82.8	79.5	− 32.5	N. 40 20 24.6	47.0	+ 79 14 50.8	− 31.5	D.	
44	30 020	81.6	78.1	− 1 18.4	S. 44 48 46.0	54.7	− 5 56 1.5	− 19.4	Y.	
45	. .	. .	. .	− 3 8.0	39 46 55.2	45.9	− 0 54 1.9	− 18.6	Y.	
46	. .	. .	. .	− 58.3	24 9 5.7	24.7	+ 14 44 8.8	− 20.5	Y.	
47	. .	. .	. .	+ 31.5	S. 24 10 35.5	24.8	+ 14 42 38.9	− 20.4	Y.	No. of wire (IX) assumed.
48	30.022	81.3	77.6	− 11.4	N. 38 35 6.5	44.0	+ 77 29 29.7	− 23.2	Y.	Whole rev. not recorded.
49	. .	. .	. .	+ 1 35.8	S. 71 1 40.1	2 39.0	− 32 10 39.9	− 10.0	Y.	
50	. .	. .	. .	− 46.0	70 59 18.3	2 38.6	− 32 8 17.7	− 9.9	Y.	
51	. .	. .	. .	− 2 1.2	76 53 2.7	3 51.9	− 38 3 15.4	− 8.6	Y.	−1″.19 added to mean of A, B, C, and D.
52	. .	. .	. .	− 25.2	76 54 38.7	3 52.4	− 38 4 51.9	− 8.5	Y.	
53	30.016	81.1	77.1	− 1 15.5	76 53 48.4	3 52.1	− 38 4 1.3	− 8.5	Y.	
54	. .	. .	. .	+ 1 28.6	80 16 37.9	5 10.0	− 41 28 8.7	− 7.1	Y.	
55	. .	. .	. .	− 1 52.9	76 18 16.9	3 42.2	− 37 28 19.9	− 7.0	Y.	
56	. .	. .	. .	− 17.6	76 19 52.2	3 42.6	− 37 29 55.6	− 6.9	Y.	
57	30.012	80.7	76.7	− 1 56.7	73 28 10.4	3 3.7	− 34 37 34.9	− 6.4	Y.	
58	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
59	30.094	86.0	85.0	− 1 16.0	75 8 31.3	3 22.0	− 36 18 14.1	− 19.5	D.	
60	. .	. .	. .	+ 1 55.0	68 11 55.5	2 15.3	− 29 20 31.6	− 20.7	D.	
61	. .	. .	. .	− 1 13.4	68 28 49.6	2 17.3	− 29 37 27.7	− 20.1	D.	
62	. .	. .	. .	+ 1 11.8	46 31 14.6	57.5	− 7 38 32.9	− 25.9	D.	
63	. .	. .	84.8	+ 2 39.4	59 22 43.6	1 31.9	− 20 30 36.3	− 21.7	D.	
64	. .	. .	. .	− 4 28.0	60 20 37.6	1 35.6	− 21 28 34.0	− 20.8	D.	
65	. .	. .	. .	− 2 47.0	S. 60 22 18.6	1 35.7	− 21 30 15.1	− 20.7	D.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES. A.	B.	C.	D.	E.	F.	Mean.	MICROMETER. Observed.	Nadir cor.	Corr'd.
						° ' "	"	"	"	"	"	"	r.	r.	r.
1868. July 13	1	O. Arg. S. 15466	8.0	3	III–VII.	339 50 9.5	58.0	2.1	6.0	1.5	5.0	3.68	29.224	. .	29.284
	2	O. Arg. S. 15612	8.0	2	V, VII.	343 0 10.0	58.3	1.1	4.9	2.1	5.9	3.72	27.486	. .	27.543
	3	Weisse XVI, 462	. .	3	III–VII.	329 10 10.2	59.9	1.8	5.2	2.8	6.9	4.47	31.423	. .	31.481
	4	Weisse XVI, 575	8.0	3	III–VII.	318 35 9.9	58.0	0.0	1.7	2.0	7.4	3.17	32.360	. .	32.416
	5	B. A. C. 5607	. .	3	III–VII.	347 30 9.1	58.0	1.0	5.8	0.0	6.1	3.33	35.694	. .	35.756
	6	Anon. 16h. 42m. 9s.	9.0	2	III, V.	348 55 8.8	58.2	1.2	6.0	0.8	4.0	3.17	34.556	. .	34.613
	7	Anon. 16h. 43m. 26s.	9.0	1	V.	" " "	"	"	"	"	"	"	20.533	. .	20.589
	8	Anon. 16h. 48m. 50s.	9.5	1	V.	" " "	"	"	"	"	"	"	20.837	. .	20.893
	9	Anon. 16h. 49m. 45s.	. .	2	V, VII.	" " "	"	"	"	"	"	"	36.531	. .	36.589
	10	O. Arg. S. 16184	8.3	3	V–IX	" " "	"	"	"	"	"	"	33.028	. .	33.081
	11	O. Arg. S. 16360	. .	2	III, V.	343 5 8.1	56.0	59.1	2.6	0.0	3.8	1.60	26.768	. .	26.830
	12	Anon. 17h. 1m. 15s.	9.5	2	V, IX.	" " "	"	"	"	"	"	"	34.024	. .	34.081
	13	ρ Herculis, (1st *)	8.0	3	III–VII.	281 35 9.0	57.1	1.0	5.1	4.3	10.0	4.42	25.903	. .	25.951
	14	ρ Herculis, (2d *)	6.0	2	VIII, IX.	" " "	"	"	"	"	"	"	25.850	. .	25.905
	15	Nadir	. .	5	. .	100 0 9.9	0.0	0.5	8.7	4.9	11.9	5.98	30.015	. .	
16	16	ν^1 Bootis	5.5	3	IV–VI.	277 40 10.3	2.4	4.1	10.9	6.2	15.0	8.15	37.170	+ 0.036	37.206
	17	τ^6 Serpentis	6.0	3	III–VII.	302 30 12.9	4.9	6.0	10.7	7.2	14.4	9.35	37.987	. .	38.023
	18	*b* Scorpii	5.0	3	III–VII.	344 15 7.6	0.0	0.8	3.9	58.2	5.2	2.62	34.446	. .	34.482
	19	48 Libræ	5.7	3	III–VII.	332 45 10.6	2.4	5.5	8.0	3.2	9.4	6.52	27.870	. .	27.906
	20	Nadir	. .	5	. .	100 0 9.5	3.1	2.9	10.9	4.0	13.5	7.32	30.078	. .	.
	21	β Herculis	4.5	2	VII, IX.	297 10 10.2	3.2	3.9	oblit,	5.2	11.9	7.34	37.056	. .	37.073
	22	39 Hereulis	6.0	3	III–VII.	291 45 9.8	1.2	3.7	6.6	3.7	10.4	5.90	34.249	. .	34.280
	23	50 Herculis	6.0	3	III–VII.	288 55 8.9	1.4	2.3	7.9	2.8	11.0	5.72	37.283	. .	37.313
	24	B. A. C. 5709	. .	3	V–IX.	343 45 8.4	1.1	2.6	7.3	59.8	7.0	4.37	29.897	. .	29.932
	25	B. A. C. 5774	6.0	3	IV–VI.	319 45 7.7	59.4	1.4	3.9	59.5	6.8	3.12	26.357	. .	26.393
	26	*w* Herculis	5.5	3	III–VII.	286 15 11.8	2.9	4.8	10.4	4.8	14.1	8.13	30.314	. .	30.343
	27	λ Herculis	5.5	3	IV–VI.	292 40 8.2	0.9	2.2	8.0	2.8	10.4	5.42	29.209	. .	29.241
	28	B. A. C. 5992	6.5	3	III–VII.	341 0 10.2	4.4	5.2	12.2	2.2	8.1	7.05	30.495	. .	30.535
	29	B. A. C. 6071	5.5	3	III–VII.	322 55 9.8	2.6	4.5	9.9	[illegible].3	9.7	6.47	27.752	. .	27.787
	30	γ^1 Sagittarii	5.5	3	III–VII.	348 25 8.9	3.9	5.1	11.0	59.5	7.9	6.05	27.843	. .	27.873
17	31	Nadir	. .	5	. .	100 0 9.0	0.0	1.0	10.2	2.0	10.0	5.37	30.023	. .	.
	32	ζ^4 Libræ	. .	3	III–VII.	335 15 9.0	58.0	1.0	6.8	58.9	3.8	2.92	27.175	+ 0.028	27.203
	33	B. A. C. 5171	. .	3	IV–VI.	355 50 9.1	0.0	3.0	8.9	59.2	2.9	3.85	29.875	. .	29.903
	34	B. A. C. 5215	. .	3	III–VII.	347 15 9.6	59.0	3.2	8.3	59.0	4.9	4.00	31.618	. .	31.652
	35	18 Ursæ Minoris	. .	3	I–5.	238 30 10.8	57.8	6.9	13.5	4.2	12.2	7.57	29.350	. .	29.377
	36	B. A. C. 5310	. .	3	IV–VI.	281 55 11.1	0.0	4.2	9.9	4.0	9.7	6.48	35 618	. .	35.644
	37	O. Arg. S, 15271	9.0	3	III–VII.	348 45 9.2	0.0	3.0	9.0	59.7	3.9	4.13	28.850	. .	28.884
	38	Weisse (2) XVI, 326	. .	3	IV–VI.	277 15 9.9	58.1	2.6	10.0	3.0	9.1	5.45	31.867	. .	31.892
	39	B. A. C. 5474	. .	3	III–VII.	347 55 11.0	0.9	5.8	10.9	0.0	6.0	5.77	26.227	. .	26.261
	40	Anon. 16h. 26m. 27s.	9.5	3	IV–VI.	352 50 11.0	1.2	4.6	11.0	1.0	5.0	5.63	35.437	. .	35.467
	41	Lacaille 6891	. .	3	VI–VIII.	" " "	"	"	"	"	"	"	37.485	. .	37.519
	42	O. Arg. S. 15868	8.0	3	III–VII.	339 55 11.0	1.2	5.9	10.8	2.0	5.9	6.13	25.786	. .	25.815
	43	O. Arg. S. 15977	7.5	3	IV–VI.	335 0 10.1	58.8	2.0	6.3	0.7	4.0	3.65	34.862	. .	34.891
	44	O. Arg. S. 16121	7.0	3	III–VII.	349 15 8.5	59.0	4.2	9.8	59.1	3.0	3.93	33.510	. .	33.544
	45	Dorpat 2119	. .	3	III–VII.	332 40 9.2	59.0	3.0	8.0	0.9	3.9	4.00	35.018	. .	35.049
	46	Anon. 17h. 6m. 21s.	9.0	3	III–VII.	352 25 9.0	59.0	2.9	9.1	58.6	2.8	3.57	28.001	. .	28.030
	47	Lalande 31492	. .	3	III–VII.	324 15 8.8	58.0	1.8	5.8	0.4	4.5	3.22	30.344	. .	30.373
	48	Weisse XVII, 508	8.0	3	III–VII.	306 20 8.3	57.8	0.0	6.0	0.0	5.0	2.85	36.644	. .	36.675
	49	B. A. C. 5792	. .	3	III–VII.	341 0 9.0	0.0	3.0	10.2	0.0	3.0	4.20	30.492	. .	30.524
	50	O. Arg. S. 17291	. .	2	III, V.	345 55 9.0	59.1	3.1	7.7	59.1	3.1	3.52	30.473	. .	30.507
	51	ν Ophiuchi	. .	3	III–VII.	328 40 9.0	58.7	2.7	7.2	59.5	3.8	3.48	34.451	. .	34.481
18	52	B. A. C. 5938	7.5	3	III–VII.	350 55 6.4	2.2	3.6	9.9	2.7	4.1	4.82	33.212	+ 0.075	33.295
	53	O. Arg. S. 17132	9.0	3	III–VII.	347 0 7.9	2.5	5.7	9.0	2.9	6.6	5.77	33.250	. .	33.331
	54	O. Arg. S. 17320	7.5	3	III–VII.	347 30 5.4	1.1	2.1	7.9	59.5	3.3	3.22	28.749	. .	28.830
	55	B. A. C. 6083	6.5	3	III–VII.	355 15 9.1	6.3	6.5	12.2	3.6	7.2	7.48	35.352	. .	35.435
	56	Lalande 33164	5.8	3	III–VII.	340 20 8.8	4.5	5.1	12.2	4.4	6.9	6.98	31.721	. .	31.800
	57	Lalande 33210	6.0	3	III–VII.	" " "	"	"	"	"	"	"	30.471	. .	30.550
	58	Lacaille 7657	6.5	3	III–VII.	353 35 7.9	3.8	4.6	10.7	3.4	5.4	5.97	31.321	. .	31.403
	59	B. A. C. 6249	5.5	3	III–VII.	349 20 6.2	1.9	3.9	9.7	0.8	3.1	4.27	32.146	. .	32.227
	60	25 Sagittarii	6.0	3	III–VII.	343 10 7.9	3.6	4.8	9.2	3.2	6.2	5.82	28.369	. .	28.449
	61	Anon. 18h. 33m. 26s.	8.0	3	III–VII.	350 25 9.5	5.1	7.2	13.3	4.8	7.9	7.97	26.610	. .	26.691
	62	Lalande 35041	8.5	3	IV–VI.	246 45 8.8	4.3	7.6	17.1	7.2	13.3	9.72	29.600	. .	29.666
	63	Anon. 18h. 47m. 20s.	8.5	3	IV–VI.	352 15 8.5	5.2	5.8	12.1	3.4	5.8	6.80	28.223	. .	28.300
	64	Anon. 18h. 47m. 42s.	9.0	2	VII, IX.	" " "	"	"	"	"	"	"	26.946	. .	27.035
	65	Lacaille 7985	7.5	3	III–VII.	352 50 8.0	5.2	5.2	11.7	3.8	6.1	6.67	31.585	. .	31.666
	66	Lacaille 8041	8.0	3	III–VII.	356 0 8.1	5.7	5.2	13.4	2.2	5.5	6.68	29.593	. .	29.675

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	+ 22.4	S. 59 50 26.0	1 33.8	− 20 58 20.6	− 20.0	D.	
2	30.114	85.5	83.9	+ 1 16.9	63 1 20.6	1 47.0	− 24 9 28.4	− 18.4	D.	
3	. .	. .	. .	− 46.4	49 9 18.0	1 3.2	− 10 16 42.0	− 21.1	D.	
4	. .	. .	. .	− 1 15.6	38 33 47.5	43.6	+ 0 19 8.1	− 23.1	D.	
5	. .	. .	. .	− 3 0.2	67 27 3.1	2 11.0	− 28 35 34.9	− 15.6	D.	
6	. .	. .	. .	− 2 24.6	68 52 38.5	2 20.7	− 30 1 20.0	− 14.8	D.	
7	. .	. .	. .	+ 4 54.6	68 59 57.7	2 21.6	− 30 8 40.1	− 14.7	D.	
8	. .	. .	. .	+ 4 45.1	68 59 48.2	2 21.6	− 30 8 30.6	− 14.2	D.	
9	. .	. .	. .	− 3 26.2	68 51 36.9	2 20.7	− 30 0 18.4	− 14.2	D.	Whole rev. correct. See August 2, 1869.
10	. .	. .	. .	− 1 36.7	68 53 26.4	2 20.9	− 30 2 8.1	− 14.0	D.	After this struck the eye-piece a slight blow. No appearance of disarrangement.
11	. .	. .	. .	+ 1 39.2	63 6 40.8	1 47.7	− 24 14 49.3	− 14.3	D.	
12	30.120	85.0	82.2	− 2 7.9	63 2 53.7	1 47.4	− 24 11 1.9	− 14.3	D.	
13	. .	. .	. .	+ 2 6.7	1 37 11.1	1.5	+ 37 16 26.6	− 22.5	D.	Whole rev. not recorded.
14	. .	. .	. .	+ 2 9.3	S. 1 37 13.7	1.5	+ 37 16 24.0	− 22.5	D.	Whole rev. not recorded.
15	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
16	29.920	89.9	85.8	− 3 45.5	N. 2 23 37.4	2.3	+ 41 17 18.9	− 41.0	Y.	
17	. .	. .	. .	− 4 11.0	S. 22 25 58.3	22.4	+ 16 27 18.5	− 34.1	Y.	
18	. .	. .	. .	− 2 20.5	64 12 42.1	1 51.6	− 25 20 54.5	− 21.0	Y.	
19	. .	. .	85.2	+ 1 5.4	52 46 11.9	1 11.2	− 13 53 43.9	− 23.7	Y.	
20	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	Y.	
21	29.930	88.4	84.8	− 3 41.4	17 6 25.9	16.7	+ 21 46 56.6	− 29.3	Y.	—0″.28 added to mean of A, B, E, and F.
22	. .	. .	. .	− 2 14.0	11 42 51.9	11.2	+ 27 10 36.1	− 28.8	Y.	
23	. .	. .	. .	− 3 48.9	8 51 16.6	8.5	+ 30 2 14.1	− 27.9	Y.	
24	29.946	88.0	84.6	+ 1.9	63 45 6.2	1 49.6	− 24 53 16.6	− 15.1	Y.	
25	. .	. .	. .	+ 1 52.9	39 46 56.0	45.2	− 0 54 2.0	− 19.4	Y.	
26	. .	. .	. .	− 10.7	6 14 57.4	6.0	+ 32 38 35.8	− 23.3	Y.	
27	29.958	87.7	84.6	+ 23.6	12 40 29.0	12.2	+ 26 12 58.0	− 20.8	Y.	
28	. .	. .	. .	− 16.7	60 59 50.3	1 37.9	− 22 7 49.0	− 11.0	Y.	
29	. .	. .	. .	+ 1 9.2	42 56 15.6	50.8	− 4 3 27.2	− 12.5	Y.	Much interrupted by clouds.
30	29.962	86.6	81.2	+ 1 6.2	68 26 12.2	2 17.3	− 29 34 50.3	− 7.7	Y.	
31	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
32	30.018	86.0	83.0	+ 1 27.5	55 16 30.4	1 18.6	− 16 24 9.8	− 25.1	D.	
33	. .	. .	. .	+ 3.0	75 50 6.8	3 32.4	− 37 0 0.0	− 18.3	D.	
34	. .	. .	. .	− 51.7	S. 67 14 12.3	2 9.3	− 28 22 42.4	− 20.3	D.	
35	. .	. .	82.5	+ 19.5	N. 41 29 33.0	48.3	+ 80 24 0.5	− 42.0	D.	
36	. .	. .	. .	− 2 56.7	S. 1 52 9.7	1.8	+ 37 1 27.7	− 36.8	D.	
37	30.030	85.0	82.1	+ 34.9	S. 68 45 39.0	2 19.7	− 29 54 19.5	− 18.3	D.	
38	. .	. .	. .	− 59.2	N. 2 45 53.8	2.7	+ 41 39 35.7	− 35.2	D.	
39	. .	. .	. .	+ 1 57.0	S. 67 57 2.7	2 14.3	− 29 5 37.8	− 17.1	D.	
40	. .	. .	. .	− 2 51.1	72 47 14.5	2 54.7	− 33 56 30.0	− 15.1	D.	
41	30.042	85.0	81.5	− 3 55.4	72 46 10.2	2 54.5	− 33 55 25.5	− 15.0	D.	
42	. .	. .	. .	+ 2 10.9	59 57 17.0	1 34.5	− 21 5 12.3	− 17.6	D.	
43	. .	. .	. .	− 2 33.1	54 57 30.5	1 18.0	− 16 5 9.3	− 18.3	D.	
44	. .	. .	. .	− 1 50.9	69 13 13.0	2 23.5	− 30 21 57.3	− 14.1	D.	
45	. .	. .	80.2	− 2 38.0	52 37 26.0	1 11.8	− 13 44 58.6	− 16.9	D.	
46	. .	. .	. .	+ 1 1.5	72 26 5.0	2 51.6	− 33 35 17.4	− 11.8	D.	
47	. .	. .	. .	− 11.7	44 14 51.5	53.5	− 5 22 5.8	− 17.1	D.	
48	. .	. .	. .	− 3 28.8	26 16 34.0	27.2	+ 12 36 38.0	− 18.5	D.	
49	30.049	83.5	79.0	− 16.4	60 59 47.8	1 39.0	− 22 7 47.6	− 11.0	D.	Cloudy.
50	. .	. .	. .	− 15.9	65 54 49.6	2 2.5	− 27 3 12.9	− 9.3	D.	Interrupted by clouds.
51	. .	. .	78.5	− 2 20.3	48 37 43.1	1 2.5	− 9 45 6.4	− 11.4	D.	
52	30.012	85.0	81.5	− 1 43.1	70 53 21.7	2 36.5	− 32 2 19.0	− 9.9	Y.	Bar. and ther. read at 17h. 20m.
53	. .	. .	. .	− 1 44.3	66 58 21.4	2 8.1	− 28 6 50.3	− 9.9	Y.	
54	. .	. .	. .	+ 36.6	67 30 39.8	2 11.4	− 28 39 12.0	− 8.9	Y.	
55	30.010	84.6	80.8	− 2 50.1	75 12 17.3	3 24.0	− 36 22 2.1	− 6.8	Y.	
56	. .	. .	. .	− 56.3	60 19 10.6	1 35.9	− 21 27 7.3	− 8.8	Y.	
57	. .	. .	. .	− 17.2	60 19 49.7	1.35.9	− 21 27 46.4	− 8.6	Y.	
58	. .	. .	. .	− 43.9	73 34 22.0	3 3.5	− 34 43 46.3	− 5.4	Y.	
59	30.014	84.1	80.3	− 1 9.7	69 18 54.5	2 24.1	− 30 27 39.4	− 5.2	Y.	
60	. .	. .	. .	+ 48.5	63 10 54.3	1 48.1	− 24 19 3.2	− 5.1	Y.	
61	. .	. .	. .	+ 1 43.6	S. 70 26 51.5	2 33.2	− 31 35 45.5	− 3.5	Y.	
62	. .	. .	. .	+ 10.5	N. 33 14 39.8	36.0	+ 72 8 55.0	− 8.6	Y	
63	. .	. .	. .	+ 53.2	S. 72 16 0.0	2 49.8	− 33 25 10.6	− 1.9	Y.	
64	. .	. .	. .	+ 1 32.8	72 16 39.6	2 49.9	− 33 25 50.3	− 1.9	Y.	Faint.
65	30.008	83.5	79.2	− 52.2	72 49 14.4	2 55.7	− 33 58 30.9	− 0.9	Y.	
66	. .	. .	. .	+ 10.1	S. 76 0 16.7	3 36.5	− 37 10 14.0	+ 0.3	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.							MICROMETER.		
						A.	B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Corr'd.
						° ′ ″	″	″	″	″	″	″	r.	r.	r.
1868. July 18	1	24 Aquilæ	5.5	3	III–VII.	318 50 6.5	2.6	2.0	7.8	1.4	6.5	4.47	36.504	. .	36.579
	2	B. A. C. 6639 . .	5.5	3	III–VII.	348 50 6.1	2.9	3.9	10.0	1.6	3.3	4.63	27.824	. .	27.905
	3	Lacaille 8159 . .	7.0	3	III–VII.	351 50 10.2	7.6	8.8	15.6	7.2	8.3	9.62	31.314	. .	31.396
	4	B. A. C. 6733 . .	6.0	3	III–VII.	350 5 10.7	6.8	7.8	14.9	4.9	8.0	8.85	32.237	. .	32.318
	5	Nadir	. .	5	. .	100 0 6.4	4.4	2.2	12.4	4.2	9.9	6.58	30.015	. .	. .
20	6	B. A. C. 5687 . .	. .	3	IV–VI.	344 10 7.2	58.8	1.7	7.1	1.0	2.7	3.08	28.513	+ 0.077	28.591
	7	Nadir	. .	5	. .	100 0 7.0	0.0	0.4	10.1	4.0	8.0	4.92	29.960	. .	. .
23	8	B. A. C. 5198 . .	. .	3	III–VII.	346 30 8.1	2.1	4.0	7.2	3.1	6.5	5.17	29.398	+ 0.063	29.466
	9	3 Scorpii	5.5	3	III–VII.	343 45 4.9	59.5	58.5	5.1	0.2	3.0	1.87	34.076	. .	34.144
	10	Lacaille 6648 . .	7.5	3	III–VII.	349 25 7.5	2.2	3.6	8.9	2.9	4.9	5.00	29.056	. .	29.125
	11	B. A. C. 5357 . .	6.5	3	III–VII.	358 35 11.9	8.0	8.5	17.0	8.6	9.9	10.65	28.323	. .	28.395
	12	Anon. 16h. 10m. 38s.	7.7	3	III–VII.	349 0 8.1	4.2	4.7	10.6	4.8	5.1	6.25	26.901	. .	26.970
	13	B. A. C. 5474 . .	7.0	3	III–VII.	347 55 9.0	4.8	5.7	10.0	4.6	8.3	7.07	26.193	. .	26.262
	14	Anon. 16h. 23m. 37s.	8.3	3	IV–VI.	352 5 8.2	4.7	4.4	10.9	4.9	6.2	6.55	35.880	. .	35.945
	15	Lacaille 6871 . .	7.0	3	V–IX.	" " "	"	"	"	"	"	"	28.800	. .	28.872
	16	24 Scorpii	5.0	3	III–VII.	336 20 9.1	4.2	4.2	7.9	5.4	7.9	6.45	27.671	. .	27.737
	17	Weisse XVI, 794 .	7.0	2	VII, IX.	305 0 7.2	1.8	1.6	7.7	6.1	8.8	5.53	23.572	. .	23.620
	18	Lacaille 7065 . .	6.0	3	III–VII.	356 15 7.2	3.1	4.8	10.1	3.2	6.0	5.73	30.648	. .	30.719
	19	B. A. C. 5730 . .	8.0	3	III–VII.	342 55 6.4	1.5	1.9	5.6	3.6	4.1	3.85	30.480	. .	30.545
	20	B. A. C. 5742 . .	8.0	3	V–IX.	" " "	"	"	"	"	"	"	30.240	. .	30.307
	21	O. Arg. S. 16420 .	8.5	3	IV–VI.	345 25 8.1	2.9	3.3	7.1	3.5	5.9	5.13	32.549	. .	32.613
	22	u Herculis	5.5	3	V–IX.	285 40 8.9	2.8	3.8	9.9	8.5	12.7	7.77	32.788	. .	32.832
	23	B. A. C. 5884 . .	6.0	3	IV–VI.	348 30 9.7	5.9	6.7	12.0	6.1	9.1	8.25	34.615	. .	34.680
	24	β Ophiuchi . . .	5.0	3	IV–VI.	314 15 8.6	3.4	2.7	7.3	7.1	8.6	6.28	29.480	. .	29.543
	25	O. Arg. S. 17275 .	8.5	3	V–IX.	336 5 6.5	2.6	1.9	5.2	2.9	5.5	4.10	29.994	. .	30.059
	26	O. Arg. S. 17447 .	8.5	3	V–IX.	344 0 7.1	2.8	3.1	9.1	3.9	6.1	5.35	28.958	. .	29.026
	27	72 Ophiuchi	5.5	3	III–VII.	309 20 5.7	0.9	0.6	3.2	3.7	7.0	3.52	29.916	. .	29.977
	28	O. Arg. S. 17905 .	8.0	2	IV, VI.	337 55 10.1	5.8	5.7	10.9	6.1	8.6	7.87	32.456	. .	32.521
	29	O. Arg. S. 17928 .	9.0	2	VII, IX.	" " "	"	"	"	"	"	"	36.877	. .	36.944
	30	O. Arg. S. 17965 .	8.0	2	VII, IX.	" " "	"	"	"	"	"	"	34.656	. .	34.723
	31	Nadir	. .	5	. .	100 0 6.0	2.2	0.2	9.9	4.9	9.7	5.48	29.992	. .	.
25	32	41 Libræ	. .	3	III–VII.	337 45 7.7	3.2	3.2	8.2	4.0	5.8	5.35	31.810	. .	31.877
	33	b Scorpii	5.0	3	III–VII.	344 15 7.1	2.9	3.9	7.9	4.4	5.3	5.25	34.567	. .	34.635
	34	Nadir	. .	5	. .	100 0 7.9	4.1	2.6	11.1	7.3	11.9	7.48	30.055	. .	. .
	35	θ Ophiuchi . . .	5.5	3	III–VII.	335 10 5.9	0.2	1.8	4.8	2.5	4.8	3.33	26.938	. .	27.004
	36	Weisse XVI, 575 .	8.0	2	III, VII.	318 35 6.6	2.0	1.3	4.6	2.9	6.0	3.90	32.382	. .	32.448
	37	B. A. C. 5641 . .	6.5	3	III–VII.	343 30 7.3	2.8	2.9	8.9	4.8	5.9	5.43	33.770	. .	33.838
	38	Anon. 16h. 53m. 3s. .	7.3	3	III–VII.	355 55 8.4	6.8	6.9	13.7	6.2	7.2	8.20	27.754	. .	27.825
	39	Weisse XVII, 115 .	7.5	2	IV, VI.	304 25 4.8	0.0	59.5	5.8	4.2	6.3	3.43	28.737	. .	28.799
	40	O. Arg. S. 16680 .	9.0	3	III–VII.	341 25 7.1	5.1	5.1	9.4	5.5	5.7	6.32	28.155	. .	28.222
	41	B. A. C. 5919 . .	5.5	3	III–VII.	316 5 7.4	1.7	1.9	7.1	5.1	7.7	5.15	33.406	. .	33.465
	42	ι Herculis	5.5	3	V–IX.	272 50 10.9	7.3	8.4	14.9	11.1	14.7	11.22	32.560	. .	32.570
	43	B. A. C. 6071 . .	5.5	3	III–VII.	322 55 5.1	0.2	1.1	5.9	2.5	4.1	3.15	27.689	. .	27.753
	44	Anon. 17h. 56m. 40s. .	6.5	3	IV–VI.	342 30 9.2	5.4	6.8	10.9	7.0	7.6	7.82	33.832	. .	33.896
	45	Anon. 18h. 7m. 48s. .	5.5	3	III–VII.	337 35 6.9	3.6	3.2	7.8	3.1	4.9	4.92	32.014	. .	32.080
	46	B. A. C 6217 . . .	6.0	3	III–VII.	343 50 6.3	2.4	2.9	9.9	3.8	4.7	5.00	30.162	. .	30.230
	47	O. Arg. S. 18234 .	8.5	3	III–VII.	345 45 6.8	2.4	3.2	8.0	2.2	3.4	4.33	35.408	. .	35.475
	48	Anon. 18h. 29m. 9s. .	9.5	3	III–VII.	340 40 6.2	4.0	3.2	10.4	3.7	5.0	5.42	35.349	. .	35.416
	49	B. A. C. 6377 . .	6.5	3	III–VII.	348 40 4.7	3.1	3.7	9.1	2.2	3.2	4.33	35.469	. .	35.535
	50	Lalande 35046 . .	8.5	3	III–VII.	339 15 5.9	2.7	3.9	8.2	3.1	4.1	4.65	33.198	. .	33.265
	51	Weisse XVIII, 1294 .	7.7	3	III–VII.	328 0 7.1	3.2	3.2	8.8	4.1	4.5	5.15	27.878	. .	27.943
Aug. 5	52	O. Arg. S. 18674 .	7.5	2	IV, VI.	337 15 5.0	2.4	1.3	7.8	2.3	3.2	3.67	31.612	+ 0.085	31.69[illegible]
	53	Weisse XVIII, 1276 .	8.3	3	III–VII.	333 50 8.2	6.3	4.9	10.9	6.1	6.0	7.07	32.718	. .	32.806
	54	Anon. 18h. 58m. 37s. .	6.5	3	IV–VI.	342 20 4.0	2.2	2.0	7.7	1.9	1.9	3.28	32.314	. .	32.400
	55	η Lyræ, (2d *) . . .	. .	3	IV–VI.	280 0 4.7	3.6	1.8	9.2	6.2	7.6	5.52	33.845	. .	33.93[illegible]
	56	χ¹ Sagittarii	5.5	2	IV, VI.	343 35 5.0	3.0	2.4	9.0	3.5	4.2	4.52	25.656	. .	25.743
	57	χ² Sagittarii	7.0	2	VIII, IX.	" " "	"	"	"	"	"	"	36.452	. .	36.54[illegible]
	58	B. A. C. 6700 . .	6.5	3	III–VII.	339 55 3.1	1.4	1.8	8.2	1.8	1.2	2.92	28.933	. .	29.022
	59	Anon. 19h. 34m. 8s. .	9.0	3	IV–VI.	351 25 6.8	5.7	6.1	12.9	5.1	5.1	6.95	33.267	. .	33.354
	60	B. A. C. 6770 . .	8.2	3	III–VII.	347 35 5.8	3.9	4.8	11.3	2.8	5.6	5.70	29.456	. .	29.54[illegible]
	61	Lacaille 8271 . .	5.5	3	III–VII.	357 15 8.2	8.2	7.2	15.8	8.1	oblit.	8.97	32.777	. .	32.870
	62	Lacaille 8341 . .	7.0	3	IV–VI.	354 50 6.8	7.7	6.8	12.8	6.3	5.7	7.68	26.418	. .	26.505
	63	ρ Aquilæ	5.5	2	IV, VI.	304 5 4.3	2.1	2.0	9.3	5.7	5.5	4.82	29.852	. .	29.9[illegible]
	64	Nadir	. .	5	. .	100 0 4.9	5.6	1.9	12.9	6.8	9.0	6.85	30.014	. .	.

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	' "	° ' "	' "	° ' "	"		
1	. .	. .	. .	− 3 25.9	S. 38 46 38.5	44.2	+ 0 6 16.5	− 1.4	Y.	
2	. .	. .	. .	+ 1 5.6	68 51 10.2	2 21.1	− 29 59 52.1	+ 0.9	Y.	
3	. .	. .	. .	− 43.7	71 49 25.9	2 45.8	− 32 58 32.5	+ 2.0	Y.	
4	30.000	83.0	78.3	− 1 12.6	70 3 56.2	2 30.4	− 31 12 47.4	+ 2.8	Y.	
5	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
6	30.020	84.0	80.5	+ 44.1	64 10 47.1	1 52.8	− 25 19 0.7	− 15.2	D.	
7	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
8	29.850	83.8	82.1	+ 16.7	66 30 21.8	2 4.4	− 27 38 47.0	− 20.5	Y.	
9	. .	. .	. .	− 2 9.7	63 42 52.1	1 49.7	− 24 51 2.6	− 20.7	Y.	
10	. .	. .	. .	+ 27.4	69 25 32.4	2 23.8	− 30 34 17.0	− 18.3	Y.	
11	29.852	83.5	81.2	+ 50.2	78 36 0.8	4 22.5	− 39 46 44.1	− 15.2	Y.	
12	. .	. .	. .	+ 1 34.8	69 1 41.0	2 21.0	− 30 10 22.8	− 17.1	Y.	
13	. .	. .	. .	+ 1 57.0	67 57 4.0	2 13.7	− 29 5 38.5	− 16.9	Y.	
14	. .	. .	. .	− 3 6.1	72 2 0.4	2 46.3	− 33 11 7.5	− 15.2	Y.	
15	29.852	83.1	80.6	+ 35.3	72 5 41.8	2 46.9	− 33 14 49.5	− 15.1	Y.	
16	. .	. .	. .	+ 1 10.8	56 21 17.2	1 21.8	− 17 28 59.8	− 18.6	Y.	
17	. .	. .	. .	+ 3 19.7	25 3 25.2	25.5	+ 13 49 48.5	− 25.9	Y.	
18	. .	. .	. .	− 22.5	76 14 43.2	3 38.6	− 37 24 42.6	− 11.8	Y.	
19	. .	. .	. .	− 17.2	62 54 46.6	1 46.3	− 24 2 53.7	− 14.6	Y.	
20	. .	. .	. .	− 9.6	62 54 54.2	1 46.3	− 24 3 1.3	− 14.6	Y.	
21	29.860	82.9	80.2	− 1 21.8	65 23 43.3	1 58.6	− 26 32 2.7	− 13.2	Y.	
22	. .	. .	. .	− 1 28.7	5 38 39.0	5.4	+ 33 14 54.8	− 25.2	Y.	
23	. .	. .	. .	− 2 26.5	68 27 41.7	2 17.4	− 29 36 19.9	− 10.9	Y.	
24	. .	. .	. .	+ 14.3	34 15 20.5	37.3	+ 4 37 41.4	− 16.3	Y.	
25	29.866	82.5	79.4	− 1.8	56 5 2.3	1 21.2	− 17 12 44.3	− 11.0	Y.	
26	. .	. .	. .	+ 30.5	64 0 35.8	1 51.7	− 25 8 48.3	− 8.5	Y.	
27	. .	. .	. .	+ 0.7	29 20 4.2	30.8	+ 9 33 4.2	− 13.6	Y.	
28	. .	. .	. .	− 1 18.9	57 53 48.9	1 27.0	− 19 1 36.7	− 7.9	Y.	
29	. .	. .	. .	− 3 37.4	57 51 30.4	1 26.9	− 18 59 18.1	− 7.8	Y.	
30	29.854	82.1	78.6	− 2 27.8	57 52 40.0	1 27.0	− 19 0 27.8	− 7.7	Y.	
31	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
32	29.904	82.7	80.4	− 58.8	57 44 6.5	1 26.4	− 18 51 53.7	− 24.0	Y.	
33	. .	. .	. .	− 2 25.1	64 12 40.1	1 52.7	− 25 20 53.6	− 20.9	Y.	
34	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
35	29.912	82.1	78.3	+ 1 33.8	55 11 37.1	1 18.8	− 16 19 16.7	+ 20.0	Y.	Deg. and min. of circle reading not recorded.
36	. .	. .	. .	− 1 16.5	38 33 47.4	43.8	+ 0 19 8.0	− 24.1	Y.	Faint; cloudy.
7	29.918	81.9	78.0	− 2 0.1	63 28 5.3	1 49.5	− 24 36 15.6	− 15.7	Y.	
8	. .	. .	. .	+ 1 8.1	75 56 16.3	3 35.4	− 37 6 12.5	− 11.5	Y.	
9	. .	. .	. .	+ 37.6	24 25 41.0	25.0	+ 14 27 33.2	− 22.7	Y.	
0	. .	. .	. .	+ 55.7	61 26 2.0	1 40.7	− 22 34 3.5	− 13.1	Y.	Faint.
1	29.930	81.3	76.7	− 1 48.6	S. 36 3 16.5	40.1	+ 2 49 42.6	− 17.9	Y.	
2	. .	. .	. .	− 1 21.3	N. 7 11 10.1	7.0	+ 46 4 56.3	− 23.1	Y.	
3	. .	. .	. .	+ 1 10.3	S. 42 56 13.4	51.3	− 4 3 25.5	− 13.0	Y.	
4	29.930	80.6	76.0	− 2 2.0	62 28 5.8	1 45.4	− 23 36 12.0	− 8.3	Y.	
5	. .	. .	. .	− 1 5.1	57 33 59.8	1 26.6	− 18 41 47.2	− 8.0	Y.	
6	. .	. .	. .	− 7.2	63 49 57.8	1 51.8	− 24 58 10.4	− 6.2	Y.	
7	. .	. .	. .	− 2 51.4	65 42 12.9	2 1.6	− 26 50 35.3	− 5.1	Y.	
8	. .	. .	. .	− 2 49.5	60 37 15.9	1 37.8	− 21 45 14.5	− 5.0	Y.	Very faint.
9	. .	. .	. .	− 2 53.4	68 37 10.9	2 20.1	− 29 45 51.8	− 2.7	Y.	
0	29.938	80.0	75.2	− 1 42.2	59 13 22.4	1 32.5	− 20 21 15.7	− 3.4	Y.	
1	. .	. .	. .	+ 1 4.4	48 1 9.5	1 1.4	− 9 8 31.7	− 3.9	Y.	
2	30.232	76.5	71.5	− 53.2	57 14 10.4	1 27.1	− 18 21 58.3	− 4.2	Y.	
3	. .	. .	. .	− 1 27.8	53 48 39.2	1 16.7	− 14 56 16.7	− 3.5	Y.	
4	. .	. .	. .	− 1 15.1	S. 62 18 48.1	1 46.7	− 23 26 55.6	− 1.1	Y.	
5	. .	. .	71.2	− 2 3.0	N. 0 1 57.5	0.0	+ 38 55 36.7	− 7.4	Y.	
6	. .	. .	. .	+ 2 13.2	S. 63 37 17.7	1 53.0	− 24 45 31.5	+ 1.2	Y.	
7	30.236	76.0	70.8	− 3 24.9	63 31 39.6	1 52.5	− 24 39 52.9	+ 1.2	Y.	
8	. .	. .	. .	+ 30.6	59 55 33.5	1 36.9	− 21 3 31.2	+ 1.7	Y.	
9	. .	. .	. .	− 1 45.0	71 23 21.9	2 45.4	− 32 32 28.1	+ 4.0	Y.	
0	30.238	75.9	70.9	+ 14.2	67 35 19.9	2 15.5	− 28 43 56.2	+ 4.1	Y.	
1	. .	. .	. .	− 1 29.8	77 13 39.1	4 2.8	− 38 24 2.7	+ 6.2	Y.	− 0."88 added to mean of A, B, C, D,
2	. .	. .	. .	+ 1 49.4	74 51 57.0	3 24.8	− 36 1 42.6	+ 6.7	Y.	
3	30.240	75.5	70.6	+ 2.0	S. 24 5 6.8	25.2	+ 14 48 7.2	+ 3.9	Y.	
4	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.							MICROMETER.		
						A.	B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Corr'd.
						° ′ ″	″	″	″	″	″	″	r.	r.	r.
1868. Aug. 6	1	B. A. C. 5538 . .	5.0	3	III–VII.	353 50 8.0	5.1	5.2	11.1	7.5	7.1	7.33	31.308	+ 0.096	31.411
	2	25 Scorpii	6.5	2	VII, IX.	344 10 3.9	1.0	1.2	5.0	2.3	2.4	2.63	32.196	. .	32.300
	3	O. Arg. S. 16100 .	7.0	3	III–VII.	347 55 3.0	0.4	0.4	6.2	59.7	2.3	2.00	30.097	. .	30.199
	4	Weisse XVI, 1011 .	8.7	3	V–IX.	322 55 7.4	3.5	2.9	7.9	6.8	7.4	5.98	32.241	. .	32.334
	5	O. Arg. S. 31166 .	7.5	3	III–VII.	339 25 6.6	3.9	3.9	9.1	4.5	5.0	5.50	34.832	. .	34.932
	6	O. Arg. S. 31199 .	6.5	3	V–IX.	" " "	"	"	"	"	"	"	37.899	. .	37.998
	7	Lacaille 7220 . .	7.5	3	IV–VI.	356 45 5.4	3.2	2.7	9.8	3.1	4.0	4.70	34.570	. .	34.665
	8	Lacaille 7330 . .	5.5	3	III–VII.	353 0 3.6	1.0	0.6	7.1	2.1	3.0	2.90	27.714	. .	27.817
	9	B. A. C. 5960 . .	6.5	3	IV–VI.	351 0 5.5	2.2	1.9	8.1	3.2	2.5	3.90	33.175	. .	33.273
	10	Anon. 17h. 31m. 57s. .	9.0	2	VIII, IX.	" " "	"	"	"	"	"	"	33.188	. .	33.300
	11	Lacaille 7424 . .	7.0	1	V.	356 55 5.7	4.1	3.8	10.9	3.9	oblit.	5.61	33.858	. .	33.954
	12	Lacaille 7433 . .	. .	3	IV–VI.	" " "	"	"	"	"	"	"	30.747	. .	30.845
	13	Anon. 17h. 29m. 56s. .	. .	3	V–IX.	" " "	"	"	"	"	"	"	32.338	. .	32.445
	14	Anon. 17h. 47m. 1s. .	8.0	2	VII, IX.	350 45 8.7	5.6	5.5	13.0	6.9	6.2	7.65	27.012	. .	27.121
	15	O. Arg. S. 17558 .	8.5	3	V–IX.	346 45 5.3	3.0	3.3	7.9	2.8	5.0	4.55	33.173	. .	33.275
	16	O. Arg. S. 17576 .	7.7	1	IX.	" " "	"	"	"	"	"	"	36.416	. .	36.529
	17	B. A. C. 6174 . .	6.5	3	V–IX.	355 30 7.4	7.2	6.1	10.9	5.3	6.1	7.17	36.485	. .	36.592
	18	B. A. C. 6217 . .	5.7	3	V–IX.	343 50 2.8	0.3	59.2	6.4	1.2	1.5	1.90	30.119	. .	30.220
	19	O. Arg. S. 18234 .	9.0	1	IX.	345 40 8.3	5.9	4.8	9.8	5.6	6.7	6.85	26.012	. .	26.124
	20	O. Arg. S. 18495 .	8.0	2	IV, VI.	335 20 4.5	1.2	0.8	6.1	2.7	3.1	3.07	35.028	. .	35.125
	21	6 Aquilæ	5.0	3	III–VII.	323 45 3.9	0.3	0.0	5.8	3.1	4.2	2.88	28.604	. .	28.701
	22	Lacaille 7922 . .	6.5	3	III–VII.	358 50 3.7	1.9	2.8	10.6	2.5	3.0	4.08	32.795	. .	32.900
	23	O. Arg. S. 19007 .	8.5	3	III–VII.	339 50 7.8	6.1	5.9	11.7	5.8	7.1	7.40	27.487	. .	27.587
	24	Lacaille 8025 . .	8.0	3	III–VII.	356 35 7.5	7.2	6.2	14.8	6.1	6.9	8.12	32.055	. .	32.159
	25	Nadir	. .	5	. .	100 0 4.4	3.8	0.2	10.5	5.1	8.5	5.42	29.957	. .	. .
12	26	Nadir	. .	5	. . .	100 0 4.0	59.1	58.0	7.0	3.9	5.0	2.83	29.882	. .	. .
	27	19 Ophiuchi	. .	3	V–VII.	316 35 6.6	57.1	59.0	4.3	4.0	3.3	2.38	31.045	+ 0.088	31.130
	28	Weisse XVI, 913 .	. .	3	IV, V, VII.	324 45 5.7	58.9	58.0	3.1	2.8	1.9	1.73	26.123	.	26.211
	29	B. A. C. 5762 . .	. .	3	III–VII.	349 45 5.9	0.0	2.0	8.0	2.9	0.1	3.15	30.167	.	30.261
	30	O. Arg. S. 16503 .	. .	3	III–VII.	349 0 6.0	0.8	3.0	8.8	3.0	0.7	3.72	34.222	. .	34.316
	31	Anon. 17h. 18m. 5s. .	8.5	1	V.	350 20 5.9	59.1	1.8	8.0	2.1	0.0	1.15	29.327	. .	29.415
	32	Anon. 17h. 17m. 45s. .	9.0	1	IX.	" " "	"	"	"	"	"	"	25.802	. .	25.910
	33	Anon. 17h. 31m. 29s. .	7.0	2	III, V.	351 0 5.0	58.5	1.0	8.1	1.3	59.0	2.15	37.910	. .	38.005
	34	Anon. 17h. 32m. 16s. .	7.0	3	V–VII.	" " "	"	"	"	"	"	"	38.251	. .	38.340
	35	B. A. C. 5968 . .	8.0	2	VII, IX.	" " "	"	"	"	"	"	"	42.906	. .	43.010
	36	Anon. 17h. 46m. 40s. .	9.0	3	III–VII.	347 35 4.0	57.0	59.9	6.0	59.2	59.1	0.87	30.141	. .	30.235
	37	B. A. C. 6072 . .	. .	3	III–VII.	" " "	"	"	"	"	"	"	28.510	. .	28.604
	38	O. Arg. S. 17553 .	. .	3	III–V.	343 15 7.0	0.8	3.0	8.8	5.0	3.0	4.60	30.283	. .	30.377
	39	O. Arg. S. 17560 .	. .	3	VII–IX.	" " "	"	"	"	"	"	"	33.019	. .	33.114
	40	73 Ophiuchi	6.0	3	III–VII.	314 55 6.0	8.1	0.1	5.2	5.0	3.1	4.58	31.285	. .	31.377
	41	O. Arg. S. 18000 .	. .	2	V, VII.	337 35 5.2	58.8	1.1	5.4	1.1	0.1	1.95	26.406	. .	26.494
	42	O. Arg. S. 18017 .	. .	3	VI–VIII.	" " "	"	"	"	"	"	"	36.016	. .	36.104
	43	*d* Serpentis	. .	3	III–VII.	318 45 5.2	58.9	0.0	5.8	2.1	1.9	2.32	29.150	. .	29.238
	44	Weisse XVIII, 473 .	. .	3	VII–IX.	" " "	"	"	"	"	"	"	29.388	. .	29.476
	45	Anon. 18h. 29m. 9s. .	. .	3	III–VII.	340 40 3.9	58.3	0.3	7.3	1.0	59.0	1.63	35.331	. .	35.423
	46	O. Arg. S. 18674 .	7.5	3	III–VII.	337 15 6.3	0.3	3.0	8.0	3.3	1.7	3.77	31.688	. .	31.799
	47	O. Arg. S. 18802 .	9.0	3	III–VII.	346 55 6.9	0.3	4.0	9.5	3.0	2.0	4.28	37.950	. .	38.044
	48	Lacaille 7955 . .	. .	3	III–VII.	355 55 7.1	2.1	3.9	11.9	3.0	1.9	4.98	31.795	. .	31.891
13	49	Nadir	. .	5	. . .	100 0 6.7	4.9	2.2	12.0	7.7	9.5	7.17	30.008	. .	. .
	50	η Herculis	5.0	2	VIII, IX.	279 45 6.2	5.3	2.1	10.3	7.9	7.9	6.62	34.238	+ 0.101	34.339
	51	B. A. C. 5695 . .	6.5	3	III–VII.	335 30 6.4	5.0	4.1	10.2	5.6	5.1	6.07	34.304	. .	34.405
	52	B. A. C. 5737 . .	7.0	3	III–VII.	347 15 6.6	3.2	3.9	9.8	3.4	4.3	5.20	31.177	. .	31.284
	53	B. A. C. 5789 . .	6.7	3	III–VII.	345 45 7.2	4.4	3.0	9.1	4.1	3.4	5.20	31.996	. .	32.102
	54	O. Arg. S. 16607 .	8.0	3	III–VII.	345 20 5.8	3.3	3.1	8.1	3.2	2.1	4.27	30.695	. .	30.801
	55	B. A. C. 5890 . .	5.5	3	III–VII.	323 50 5.8	2.8	1.4	6.9	3.9	4.1	4.15	28.857	. .	28.959
	56	Anon. 17h. 25m. 47s.	9.0	2	II, VIII.	351 20 9.4	7.8	8.1	14.0	7.8	7.1	9.02	32.548	. .	32.667
	57	Anon. 17h. 25m. 41s.	9.3	1	V.	" " "	"	"	"	"	"	"	27.024	. .	27.125
	58	O. Arg. S. 17094 .	9.0	3	III–VII.	342 30 6.9	4.4	4.4	11.6	4.8	5.1	6.20	26.655	. .	26.761
	59	Anon. 17h. 43m. 5s.	7.5	3	III–VII.	350 15 5.9	3.1	3.9	10.7	2.6	2.3	4.75	33.262	. .	33.369
	60	Anon. 17h. 47m. 38s.	8.5	1	VII.	353 30 6.4	5.9	4.8	12.7	5.3	4.6	6.62	22.171	. .	22.277
	61	Anon. 17h. 48m. 11s.	8.2	2	VII, IX.	" " "	"	"	"	"	"	"	22.452	. .	22.565
	62	O. Arg. S. 17533 .	9.0	1	V.	346 35 5.4	3.4	3.2	9.2	2.3	3.6	4.52	29.853	. .	29.954
	63	O. Arg. S. 17535 .	9.0	2	VII, IX.	" " "	"	"	"	"	"	"	28.530	. .	28.640
	64	Anon. 18h. 5m. 11s.	7.5	3	III–VII.	356 30 8.2	8.1	6.8	15.9	6.1	5.9	8.50	32.347	. .	32.458
	65	Anon. 18h. 5m. 29s.	8.0	2	VII, IX.	" " "	"	"	"	"	"	"	28.905	. .	29.009

Number.	Barometer.	THERM'S.		Instrumental corrections.	Apparent Zenith Distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.							
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	30.182	79.0	75.8	− 44.2	S. 73 49 23.1	3 9.2	− 34 58 53.1	− 13.8	Y.	
2	. . .	. .	. .	− 1 12.0	64 8 50.6	1 54.4	− 25 17 5.8	− 15.8	Y.	
3	30.182	78.8	75.0	− 6.2	67 54 55.8	2 16.4	− 29 3 33.0	− 13.8	Y.	Circle reading recorded 147° 55′.
4	. . .	. .	. .	− 1 13.0	42 53 52.9	51.8	− 4 1 5.5	− 20.7	Y.	Circle reading recorded 322° 59′.
5	. . .	. .	. .	− 2 34.4	59 22 31.1	1 33.9	− 20 30 25.8	− 14.9	Y.	
6	. . .	. .	. .	− 4 10.4	59 20 55.1	1 33.8	− 20 28 49.7	− 14.8	Y.	
7	. . .	. .	. .	− 2 26.1	76 42 38.6	3 51.4	− 37 52 50.8	− 8.8	Y.	
8	30.182	78.1	73.8	+ 1 8.3	73 1 11.2	3 0.6	− 34 10 32.6	− 8.7	Y.	
9	. . .	. .	. .	− 1 42.5	70 58 21.4	2 40.4	− 32 7 22.6	− 8.4	Y.	
10	. . .	. .	. .	− 1 43.3	70 58 20.6	2 40.4	− 32 7 21.8	− 8.3	Y.	
11	. . .	. .	. .	− 2 3.8	76 53 1.8	3 54.7	− 38 3 17.3	− 6.2	Y.	− 0.″51 added to mean of A, B, C, D.
12	. . .	. .	. .	− 26.5	76 54 39.1	3 55.2	− 38 4 55.1	− 6.0	Y.	
13	. . .	. .	. .	− 1 16.5	76 53 49.1	3 54.9	− 38 4 4.8	− 6.0	Y.	
14	30.180	77.7	73.7	+ 1 30.1	70 46 37.7	2 38.7	− 31 55 37.2	− 6.9	Y.	
15	. . .	. .	. .	− 1 42.5	66 43 22.0	2 9.2	− 27 51 52.0	− 6.9	Y.	
16	. . .	. .	. .	− 3 24.4	66 41 40.1	2 9.0	− 27 50 9.9	− 6.8	Y.	
17	. . .	. .	. .	− 3 26.3	75 26 40.8	3 31.7	− 36 36 33.3	− 3.7	Y.	
18	30.182	77.3	73.1	− 6.9	63 49 55.0	1 53.3	− 24 58 9.1	− 5.8	Y.	
19	. . .	. .	. .	+ 2 1.3	65 42 8.1	2 3.3	− 26 50 32.2	− 4.6	Y.	
20	. . .	. .	. .	− 2 40.4	55 17 22.6	1 20.6	− 16 25 4.0	− 5.7	Y.	
21	. . .	. .	. .	+ 40.7	43 45 43.5	53.6	− 4 52 57.9	− 6.9	Y.	
22	30.178	76.8	72.7	− 1 30.8	78 48 33.2	4 34.7	− 39 59 28.7	+ 1.1	Y.	
23	. . .	. .	. .	+ 1 15.5	59 51 22.9	1 36.1	− 20 59 19.8	− 1.7	Y.	
24	. . .	. .	. .	− 1 7.6	76 34 0.5	3 49.7	− 37 44 11.0	+ 2.1	Y.	
25	. . .	. .	. .	. .	. . . . .	. .	. . . . .	. .	Y.	
26	. . .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
27	30.137	76.0	71.0	− 35.4	36 34 26.9	41.6	+ 2 18 30.7	− 24.8	D.	
28	. . .	. .	. .	+ 1 58.6	44 47 0.3	55.7	− 5 54 16.8	− 21.3	D.	
29	. . .	. .	69.7	− 8.2	69 44 54.9	2 31.0	− 30 53 46.7	− 12.0	D,	
30	. . .	. .	. .	− 2 15.1	68 57 48.6	2 25.2	− 30 6 34.6	− 11.4	D,	
31	. . .	. .	. .	+ 18.3	70 20 19.4	2 36.3	− 31 29 16.5	− 9.9	D.	
32	30.146	75.0	68.4	+ 2 8.0	70 22 9.1	2 36.6	− 31 31 6.5	− 9.9	D.	
33	. . .	. .	. .	− 4 10.6	70 55 51.5	2 41.7	− 32 4 54.0	− 8.3	D.	
34	. . .	. .	. .	− 4 21.1	70 55 41.0	2 41.7	− 32 4 43.5	− 8.2	D.	
35	. . .	. .	. .	− 6 47.2	70 53 14.9	2 41.3	− 32 2 17.0	− 8.1	D.	
36	. . .	. .	. .	− 7.3	67 34 53.5	2 16.0	− 28 43 30.3	− 7.6	D.	
37	. . .	. .	67.3	+ 43.7	67 35 44.5	2 16.2	− 28 44 21.5	− 7.2	D.	
38	. . .	. .	. .	− 11.8	63 14 52.8	1 51.6	− 24 23 5.2	− 7.8	D.	
39	. . .	. .	. .	− 1 37.5	63 13 27.1	1 51.5	− 24 21 39.4	− 7.8	D.	
40	. . .	. .	. .	− 42.9	34 54 21.6	39.5	+ 3 58 38.1	− 14.5	D.	
41	. . .	. .	. .	+ 1 49.7	57 36 51.6	1 28.9	− 18 44 41.3	− 7.7	D.	
42	. . .	. .	. .	− 3 13.9	57 31 48.0	1 28.7	− 18 39 37.5	− 4.6	D.	
43	. . .	. .	. .	+ 23.8	38 45 26.1	45.4	+ 0 7 27.7	− 11.1	D.	
44	. . .	. .	. .	+ 16.4	38 45 18.7	45.4	+ 0 7 35.1	− 11.0	D.	
45	30.165	72.8	66.7	− 2 49.8	60 37 11.8	1 40.2	− 21 45 12.8	− 4.7	D.	
46	. . .	. .	. .	− 55.7	57 14 8.0	1 27.8	− 18 21 56.6	− 4.2	D.	
47	. . .	. .	. .	− 4 11.8	66 50 52.4	2 11.8	− 27 59 25.0	− 1.3	D.	
48	30.170	72.0	65.7	− 59.2	S. 75 54 5.7	3 41.8	− 37 4 8.3	+ 1.4	D.	
49	. . .	. .	. .	. .	. . . . .	. .	. . . . .	. .	Y.	
50	30.180	74.5	69.7	− 2 14.6	N. 0 17 8.0	0.3	+ 39 10 47.5	− 34.4	Y.	
51	. . .	. .	. .	− 2 18.0	S. 55 27 48.0	1 21.8	− 16 35 30.6	− 17.8	Y.	
52	. . .	. .	. .	− 40.2	67 14 25.0	2 13.6	− 28 22 59.4	− 13.1	Y.	
53	30.180	73.8	67.8	− 1 5.8	65 43 59.4	2 4.6	− 26 52 24.8	− 12.8	Y.	
54	. . .	. .	. .	− 25.1	65 19 39.1	2 2.5	− 26 28 2.4	− 12.1	Y.	
55	. . .	. .	. .	+ 32.6	43 50 36.7	54.3	− 4 57 51.8	− 17.9	Y.	
56	. . .	. .	. .	− 1 23.5	71 18 45.5	2 45.9	− 32 27 52.2	− 8.8	Y.	
57	. . .	. .	. .	+ 1 30.0	71 21 39.0	2 46.4	− 32 30 46.2	− 8.7	Y.	
58	30.186	72.6	65.6	+ 1 41.3	62 31 47.5	1 48.7	− 23 39 57.0	− 10.5	Y.	
59	. . .	. .	. .	− 1 45.5	70 13 19.2	2 36.6	− 31 22 16.6	− 7.2	Y.	
60	. . .	. .	. .	+ 4 1.8	73 34 8.4	3 10.1	− 34 43 39.3	− 5.8	Y.	
61	. . .	. .	. .	+ 3 52.6	73 33 59.2	3 10.1	− 34 43 30.1	− 5.7	Y.	
62	. . .	. .	. .	+ 1.4	66 35 5.9	2 10.5	− 27 43 37.2	− 6.9	Y.	
63	. . .	. .	. .	+ 42.5	66 35 47.0	2.10.6	− 27 44 18.4	− 6.9	Y.	
64	. . .	. .	. .	− 1 16.9	76 28 51.6	3 52.0	− 37 39 4.4	− 3.2	Y.	
65	. . .	. .	. .	+ 30.6	S. 76 30 39.1	3 52.6	− 37 40 52.5	− 3.1	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.							MICROMETER.		
						A.	B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Corr'd.
1868.						° ′ ″	″	″	″	″	″	″	r.	r.	r.
Aug. 13	1	Anon. 18h. 12m. 42s.	8.0	3	III–VII.	347 15 9.0	6.2	6.8	14.2	5.9	7.8	8.32	29.415	. .	29.522
	2	Anon. 18h. 21m. 22s.	8.3	3	I–IX.	355 45 6.7	7.9	5.8	14.0	4.9	4.2	7.25	31.624	. .	31.7
	3	Lacaille 7741 . .	8.0	2	VIII, IX.	" " "	"	"	"	"	"	"	32.820	. .	32.9
	4	Anon. 18h. 24m. 45s.	7.3	3	V–IX.	" " "	"	"	"	"	"	"	32.372	. .	32.4
	5	Anon. 18h. 34m. 9s.	9.5	2	V, VII.	356 45 3.8	3.5	3.2	10.9	2.2	1.1	4.12	24.812	. .	24.9
	6	Anon. 18h. 42m. 33s.	8.4	2	III, V.	349 45 6.9	5.6	5.3	12.8	5.4	3.9	6.65	25.043	. .	25.15
	7	Weisse XVIII, 1219	9.5	3	III–VII.	328 25 4.4	3.9	1.8	9.5	2.7	1.9	4.03	28.389	. .	28.4
	8	Weisse XVIII, 1430	8.3	3	V–IX.	327 40 6.8	6.5	5.1	13.1	6.3	5.1	7.15	33.370	. .	33.4
14	9	Nadir	. .	5	. .	100 0 12.0	7.0	5.0	14.2	13.0	14.0	10.87	30.124	. .	. .
	10	26 Ophiuchi	. .	3	III–VII.	343 40 6.0	59.4	0.8	5.9	4.0	2.0	3.02	32.277	+ 0.103	32.38
	11	B. A. C. 5768 . .	. .	3	IV–VI.	349 5 6.0	0.8	1.0	7.9	4.0	1.0	3.45	30.570	. .	30.67
	12	B. A. C. 5800 . .	. .	3	III–VII.	345 40 6.0	59.0	0.0	4.4	2.9	1.0	2.22	28.192	. .	28.30
	13	O. Arg. S. 16600 .	9.0	3	IV–VI.	341 45 7.0	59.0	0.1	7.0	5.0	1.1	3.20	34.341	. .	34.44
	14	Weisse (2) XVII, 486	8.0	2	III–V.	301 50 7.1	59.9	0.5	6.1	6.3	5.2	4.18	24.589	. .	24.69
	15	Weisse (2) VVII, 487	8.0	2	VII, IX.	" " "	"	"	"	"	"	"	27.645	. .	27.7
	16	Weisse (2) XVII, 523	8.0	2	VI, VIII.	" " "	"	"	"	"	"	"	30.793	. .	30.8
	17	Weisse (2) XVII, 552	6.7	2	VII, IX.	" " "	"	"	"	"	"	"	28.419	. .	28.5
	18	Weisse (2) XVII, 596	8.0	2	VI, VIII.	" " "	"	"	"	"	"	"	34.102	. .	34.19
	19	O. Arg. S. 16978 .	7.5	3	IV–VI.	336 40 8.0	1.1	1.8	7.8	5.8	4.1	4.77	33.051	. .	33.15
	20	Anon. 17h. 34m. 34s.	. .	3	III–VII.	346 40 6.4	0.0	2.0	8.0	3.9	3.0	3.88	33.935	. .	34.0
	21	Lacaille 7443 . .	7.0	3	IV–VI.	357 45 7.6	3.0	3.9	11.9	5.7	oblit.	6.12	29.075	. .	29.1
	22	Anon. 17h. 48m. 55s.	. .	3	IV–VI.	350 50 6.8	0.0	1.0	9.0	3.9	1.0	3.62	25.091	. .	25.19
	23	O. Arg. S. 17503 .	9.0	2	VI–IX.	334 30 6.7	0.9	0.0	6.8	4.1	2.8	3.55	28.716	. .	28.8
	24	Lalande 33164 . .	7.0	3	III–VII.	340 20 6.3	0.5	0.0	8.1	3.8	1.2	3.32	31.685	. .	31.7
	25	Lalande 33210 . .	. .	3	V–VII.	" " "	"	"	"	"	"	"	30.537	. .	30.64
	26	Anon. 18h. 6m. 39s. .	9.0	1	IV.	337 50 6.3	59.0	0.0	5.1	2.3	1.1	2.30	30.224	. .	30.331
	27	O. Arg. S. 17892 .	8.0	2	IV, V.	" " "	"	"	"	"	"	"	28.530	. .	28.63
	28	O. Arg. S. 17916 .	7.5	2	V, VII.	" " "	"	"	"	"	"	"	30.514	. .	30.61
	29	Anon. 18h. 8m. 41s. .	7.5	2	V, VII.	" " "	"	"	"	"	"	"	24.666	. .	24.7
	30	O. Arg. S. 17965 .	7.5	2	VII, VIII.	" " "	"	"	"	"	"	"	24.998	. .	25.10
	31	Anon. 18h. 16m. 59s.	. .	3	III–VII.	351 5 6.4	0.1	1.0	9.0	4.1	1.8	3.73	32.757	. .	32.8
	32	Anon. 18h. 23m. 46s.	. .	3	III–V.	351 55 6.0	1.0	1.0	9.0	4.0	1.7	3.78	34.956	. .	35.0
	33	Anon. 18h. 24m. 35s.	. .	3	IV–VI.	" " "	"	"	"	"	"	"	29.795	. .	29.9
	34	O. Arg. S. 18506, (1st *)	9.0	3	IV, V, IX.	344 30 6.8	0.8	1.0	7.0	5.0	1.9	3.75	32.365	. .	32.47
	35	O. Arg. S. 18506, (2d *)	8.0	3	VI–VIII.	" " "	"	"	"	"	"	"	32.596	. .	32.70
	36	O. Arg. S. 18636 .	. .	3	III–VII.	337 25 6.1	59.3	1.1	6.0	3.3	2.0	2.97	36.002	. .	36.10
	37	Anon. 18h. 43m. 58s.	9.0	3	III–VII.	350 0 6.0	0.1	1.7	8.2	4.0	1.0	3.50	31.223	. .	31.33
	38	Weisse XVIII, 1219	9.5	3	III–VII.	328 25 7.0	1.8	1.0	7.9	5.0	2.8	4.25	28.336	. .	28.4
	39	O. Arg. S. 18986 .	8.0	3	III–VII.	335 55 7.0	1.9	2.0	6.8	4.0	2.8	4.08	32.658	. .	32.7
	40	Lamont 6597 . .	9.5	3	III–VII.	319 45 6.0	59.2	0.1	4.9	4.0	2.2	2.73	30.735	. .	30.8
15	41	B. A. C. 5700 . .	. .	3	III–VII.	338 10 7.7	5.5	3.8	6.9	6.8	5.5	6.03	26.666	+ 0.098	26.76
	42	B. A. C. 5748 . .	6.0	3	III–VII.	329 45 5.1	2.2	0.2	4.9	4.2	4.1	3.45	27.192	. .	27.2
	43	Lacaille 7168 . .	6.5	3	III–VII.	357 0 7.7	6.8	5.0	11.8	6.7	oblit.	4.90	34.364	. .	34.470
	44	B. A. C. 5824 . .	5.8	3	IV–VI.	351 15 6.7	5.2	4.1	10.1	6.1	5.8	6.33	29.453	. .	29.55
	45	Lacaille 7269 . .	7.0	3	III–VII.	353 15 8.1	6.9	5.1	11.5	8.2	8.2	8.00	26.744	. .	26.84
	46	O. Arg. S. 16842 .	7.7	1	V.	334 50 6.2	3.0	1.1	5.0	5.7	5.5	4.42	34.391	. .	34.48
	47	O. Arg. S. 16856 .	8.5	3	V–IX.	" " "	"	"	"	"	"	"	36.439	. .	36.53
	48	O. Arg. S. 16908 .	8.5	3	III–VII.	" " "	"	"	"	"	"	"	26.571	. .	26.67
	49	Anon. 17h. 33m. 33s.	7.5	3	III–VII.	354 15 8.4	7.1	6.0	11.9	9.9	8.1	8.57	28.149	. .	28.2
	50	Anon. 17h. 35m. 2s.	8.5	3	IV–VI.	" " "	"	"	"	"	"	"	27.473	. .	27.57
	51	Lacaille 1714 . .	7.5	3	V–IX.	" " "	"	"	"	"	"	"	23.485	. .	23.5
	52	B. A. C. 6032 . .	6.3	3	IV–VI.	350 10 8.0	6.9	5.9	12.2	7.7	6.9	7.93	33.212	. .	33.31
	53	Anon. 17h. 49m. 55s.	8.5	3	IV–VI.	355 40 3.9	2.5	0.2	6.9	1.9	1.4	2.80	28.910	. .	29.01
	54	B. A. C. 6070 . .	6.5	2	I, IX.	" " "	"	"	"	"	"	"	29.002	. .	29.1
	55	Anon. 17h. 58m. 17s.	9.2	3	III–VII.	340 20 5.6	4.3	1.7	8.1	5.8	4.2	4.95	30.071	. .	30.17
	56	Lalande 33210 . .	6.5	3	III–VII.	" " "	"	"	"	"	"	"	30.465	. .	30.5
	57	Lacaille 7629 . .	6.5	3	IV–VI.	353 30 8.4	8.4	6.1	12.5	9.8	8.0	8.87	33.480	. .	33.5
	58	Anon. 18h. 11m. 50s.	9.2	3	III–VII.	336 40 6.9	5.4	3.3	7.4	6.8	6.9	6.12	33.034	. .	33.13
	59	Dorpat 2313, (1st *) .	9.0	2	III, VII.	325 35 6.7	4.4	0.9	7.4	7.5	7.1	5.67	34.281	. .	34.3
	60	Dorpat 2313, (2d *) .	7.0	1	V.	" " "	"	"	"	"	"	"	34.473	. .	34.57
	61	Anon. 18h. 26m. 57s.	9.0	3	III–VII.	355 45 3.5	4.0	0.5	6.9	2.7	1.6	3.20	30.720	. .	30.8
	62	Lacaille 7823 . .	7.3	3	III–VII.	358 15 8.5	8.3	7.1	13.9	8.7	6.1	8.77	32.747	. .	32.8
	63	Lalande 34916 . .	7.0	3	III, VII, IX.	338 10 7.8	6.2	4.8	10.4	6.5	6.4	7.02	31.533	. .	31.6
	64	Anon. 18h. 50m. 34s.	8.5	2	V, VII.	341 0 7.6	5.9	2.9	10.9	6.9	6.1	6.72	29.457	. .	29.55
	65	O. Arg. S. 18907 .	9.0	2	VII, IX.	" " "	"	"	"	"	"	"	36.778	. .	36.8
	66	O. Arg. S. 19083 .	7.0	3	III–VII.	335 20 6.0	3.8	1.8	7.3	5.4	5.1	4.90	34.237	. .	34.3

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	30.186	71.4	64.0	+ 15.0	S. 67 15 23.3	2 15.0	− 28 23 59.1	− 4.9	Y.	
2	. .	. .	. .	− 55.2	75 44 12.0	3 40.2	− 36 54 13.0	− 1.7	Y,	
3	. .	. .	. .	− 1 32.1	75 43 35.1	3 40.0	− 36 53 35.9	− 1.6	Y.	
4	. .	. .	. .	− 1 17.8	75 43 49.4	3 40.2	− 36 53 50.4	− 1.4	Y.	
5	. .	. .	. .	+ 2 39.1	76 47 43.2	3 58.1	− 37 58 2.1	− 0.2	Y.	
6	. .	. .	. .	+ 2 31.8	69 47 38.4	2 33.8	− 30 56 33.0	− 1.0	Y.	
7	30.190	70.5	62.7	+ 47.2	48 25 51.2	1 4.3	− 9 33 16.3	− 5.2	Y.	
8	. .	. .	. .	− 1 48.6	47 38 18.5	1 2.6	− 8 45 41.9	− 4.3	Y.	
9	. .	. .	. .	. . .	. . . .	. . .	. . . . .	. .	D.	
10	30.156	75.0	71.2	− 1 14.7	63 38 48.3	1 52.7	− 24 47 1.8	− 14.7	D.	
11	. .	. .	. .	− 21.1	69 4 42.3	2 25.7	− 30 13 28.8	− 12.1	D.	
12	. .	. .	. .	+ 53.2	65 40 55.4	2 3.7	− 26 49 19.9	− 12.6	D.	
13	30.156	74.5	70.0	− 2 19.1	61 42 44.1	1 44.1	− 22 50 49.0	− 13.2	D.	
14	. .	. .	. .	+ 2 46.2	21 52 50.3	22.6	+ 17 0 26.3	− 24.3	D.	Whole rev. recorded 23.
15	. .	. .	. .	+ 1 11.0	21 51 15.1	22.6	+ 17 2 1.5	− 24.3	D.	
16	. .	. .	. .	− 27.7	21 49 36.4	22.5	+ 17 3 40.3	− 24.1	D.	
17	. .	. .	. .	+ 46.8	21 50 50.9	22.6	+ 17 2 25.7	− 24.0	D.	
18	. .	. .	. .	− 2 11.3	21 47 52.8	22.5	+ 17 5 23.9	− 23.9	D.	
19	. .	. .	69.4	− 1 38.7	56 38 26.0	1 25.3	− 17 46 12.1	− 12.9	D.	
20	. .	. .	. .	− 2 6.5	66 37 57.3	2 9.5	− 27 46 27.6	− 9.2	D.	
21	30.160	73.7	69.0	+ 25.7	77 45 31.8	4 13.3	− 38 56 5.9	− 5.3	D.	−0″.48 added to mean of A, B, C, D.
22	. .	. .	. .	+ 2 30.4	70 52 34.0	2 41.0	− 32 1 35.8	− 6.4	D.	
23	. .	. .	. .	+ 36.9	54 30 40.4	1 18.9	− 15 38 20.1	− 10.5	D.	
24	. .	. .	. .	− 56.1	60 19 7.2	1 38.5	− 21 27 6.5	− 8.3	D.	
25	. .	. .	. .	− 20.0	60 19 43.3	1 38.6	− 21 27 42.7	− 8.1	D.	
26	. .	. .	. .	− 10.4	57 49 51.9	1 29.4	− 18 57 42.1	− 8.1	D.	
27	. .	. .	. .	+ 42.7	57 50 45.0	1 29.4	− 18 58 35.2	− 8.0	D.	
28	. .	. .	. .	− 19.3	57 49 43.0	1 29.4	− 18 57 33.2	− 8.0	D.	
29	. .	. .	. .	+ 2 43.7	57 52 46.0	1 29.5	− 19 0 36.3	− 7.8	D.	
30	. .	. .	. .	+ 2 33.3	57 52 35.6	1 29.5	− 19 0 25.9	− 7.8	D.	
31	30.162	73.0	68.5	− 1 29.8	71 3 33.9	2 42.7	− 32 12 37.4	− 3.3	D.	
32	. .	. .	. .	− 2 38.6	71 52 25.1	2 50.5	− 33 1 36.4	− 2.4	D.	
33	. .	. .	. .	+ 3.1	71 55 6.8	2 50.9	− 33 4 18.5	− 2.3	D.	
34	. .	. .	. .	− 1 17.5	64 28 46.2	1 57.6	− 25 37 4.6	− 3.4	D,	
35	. .	. .	. .	− 1 24.8	64 28 38.9	1 57.6	− 25 36 57.3	− 3.4	D.	
36	. .	. .	68.1	− 3 11.2	57 21 51.7	1 27.9	− 18 29 40.4	− 4.5	D.	
37	. .	. .	. .	− 41.7	69 59 21.8	2 33.7	− 31 8 16.3	− 0.7	D.	
38	. .	. .	. .	+ 48.8	48 25 53.0	1 3.6	− 9 33 17.4	− 5.2	D.	
39	. .	. .	. .	− 1 26.5	55 53 37.5	1 23.3	− 17 1 21.6	− 2.8	D.	
40	30.165	72.2	67.6	− 26.2	39 44 36.5	47.0	− 0 51 44.3	− 5.5	D.	
41	30.086	77.0	74.4	+ 1 41.2	58 11 47.2	1 29.5	− 19 19 37.5	− 16.8	Y.	
42	. .	. .	. .	+ 1 24.8	49 46 28.2	1 5.7	− 10 53 54.7	− 18.7	Y.	
43	. .	. .	. .	− 2 19.9	76 57 45.0	3 55.4	− 38 8 1.2	− 9.1	Y.	−0″.32 added to mean of A, B, C, D.
44	. .	. .	73.4	+ 14.0	71 15 20.3	2 42.6	− 32 24 23.7	− 10.3	Y.	
45	. .	. .	. .	+ 1 38.6	73 16 46.6	3 3.2	− 34 26 10.6	− 9.0	Y.	
46	. .	. .	. .	− 2 20.5	54 47 43.9	1 18.9	− 15 55 23.6	− 14.3	Y.	Circle reading recorded 334° 40′.
47	. .	. .	. .	− 3 24.7	54 46 39.7	1 18.8	− 15 54 19.3	− 14.2	Y.	
48	30.086	76.3	73.0	+ 1 44.2	54 51 48.6	1 19.1	− 15 59 28.5	− 13.9	Y.	
49	. .	. .	. .	+ 54.7	74 16 3.2	3 15.1	− 35 25 39.1	− 6.9	Y.	
50	. .	. .	. .	+ 1 16.0	74 16 24.5	3 15.2	− 35 26 0.5	− 6.8	Y.	
51	. .	. .	. .	+ 3 20.6	74 18 29.1	3 15.5	− 35 28 0.4	− 6.6	Y.	
52	. .	. .	. .	− 1 43.7	70 8 24.2	2 33.1	− 31 17 18.1	− 7.1	Y.	
53	. .	. .	. .	+ 31.0	75 40 33.8	3 34.7	− 36 50 29.3	− 4.8	Y.	
54	30.090	76.0	72.7	+ 27.0	75 40 29.8	3 34.7	− 36 50 25.3	− 4.8	Y.	
55	. .	. .	. .	− 5.4	60 19 59.5	1 37.7	− 21 27 58.0	− 8.3	Y.	
56	. .	. .	. .	− 17.7	60 19 47.2	1 37.7	− 21 27 45.7	− 8.0	Y.	
57	. .	. .	. .	− 1 52.0	73 28 16.8	3 5.8	− 34 37 43.4	− 3.7	Y.	
58	. .	. .	. .	− 1 38.1	56 38 28.0	1 24.7	− 17 46 13.5	− 7.8	Y.	
59	. .	. .	. .	− 2 17.1	45 32 48.5	57.0	− 6 40 6.3	− 10.0	Y.	
60	30.092	75.6	71.7	− 2 23.1	45 32 42.5	57.0	− 6 40 0.3	− 10.0	Y.	
61	. .	. .	. .	− 25.9	75 44 37.3	3 36.3	− 36 54 34.4	− 0.9	Y.	
62	. .	. .	. .	− 1 29.3	78 13 39.4	4 21.6	− 39 24 21.8	+ 0.4	Y.	
63	. .	. .	. .	− 51.3	58 9 15.7	1 30.0	− 19 17 6.5	− 3.8	Y.	
64	. .	. .	. .	+ 13.9	61 0 20.6	1 40.8	− 22 8 22.2	− 2.1	Y.	
65	. .	. .	. .	− 3 35.4	60 56 31.3	1 40.6	− 22 4 32.7	− 2.0	Y.	
66	30.086	73.7	69.8	− 2 15.8	S. 55 17 49.1	1 20.9	− 16 25 30.8	− 2.4	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.									MICROMETER.		
						A.			B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Corr'd
1868.						°	′	″	″	″	″	″	″	″	r.	r.	r.
Aug. 15	1	Lacaille 8061 . .	6.3	3	III–VII.	356	0	7.0	7.2	5.1	12.1	6.5	6.4	7.38	34.671	. .	[illegible]
	2	Anon. 19h. 17m. 11s.	7.2	3	III–VII.	342	10	7.1	5.2	4.6	9.0	6.4	5.9	6.37	31.159	. .	[illegible]
	3	Lacaille 8138 . .	5.5	3	III–VII.	359	10	4.0	4.2	2.8	10.8	3.9	3.1	4.80	34.455	. .	[illegible]
	4	Lacaille 8193 . .	7.0	3	III–VI.	355	10	5.6	5.4	3.8	10.1	4.7	4.2	5.63	35.163	. .	[illegible]
	5	(* 119) W.10h.42m.3s.	9.5	2	IV, VI.	260	30	4.0	2.0	2.0	10.9	6.8	9.4	5.85	35.126	. .	[illegible]
	6	Nadir	. .	5	. .	100	0	2.0	2.2	58.7	8.0	5.1	6.9	3.82	29.904	. .	. .
18	7	B. A. C. 5818 . . .	. .	3	V–IX.	349	5	9.1	7.3	6.1	11.4	7.9	8.8	8.43	33.528	+ 0.097	[illegible]
	8	*w* Herculis	. .	2	VII, IX.	286	15	8.4	3.7	2.9	8.8	9.8	12.4	7.67	30.396	. .	[illegible]
	9	B. A. C. 5932 . .	5.0	3	III–VII.	357	20	5.1	2.9	1.9	8.6	2.8	oblit.	4.60	26.265	. .	[illegible]
	10	Lacaille 7395 . .	6.0	3	IV–VI.	352	15	9.7	8.3	5.9	12.0	8.6	8.9	8.90	26.928	. .	[illegible]
	11	Lacaille 7430 . .	6.5	3	III–VII.	353	5	5.0	1.6	0.1	6.9	3.2	4.2	3.50	28.001	. .	[illegible]
	12	Weisse XVII, 929 .	7.5	3	III–VII.	310	10	4.0	0.4	58.7	2.1	4.2	5.1	2.42	26.264	. .	[illegible]
	13	Anon. 17h. 53m. 20s.	8.0	1	V.	355	10	10.0	8.6	6.8	12.7	9.1	9.6	9.47	27.758	. .	[illegible]
	14	B. A. C. 6083 . .	7.0	1	IX.	"	"	"	"	"	"	"	"	"	25.761	. .	[illegible]
	15	Anon. 18h. 1m. 50s. .	9.0	3	V–IX.	350	0	7.0	3.7	2.8	7.9	4.6	5.1	5.18	32.575	. .	[illegible]
	16	Lacaille 7646 . .	6.5	2	III, V.	353	0	5.2	2.5	1.8	7.2	3.3	5.1	4.18	30.880	. .	[illegible]
	17	B. A. C. 6244 . .	8.0	3	IV–VI.	350	40	4.3	1.3	0.7	6.6	2.8	3.1	3.13	29.290	. .	[illegible]
	18	*θ* Coronæ Australis .	5.5	3	III–VII.	1	10	8.1	6.9	4.8	12.1	7.2	7.9	7.83	26.066	. .	[illegible]
	19	Anon. 18h. 30m. 51s.	8.3	3	III–VII.	351	0	6.2	3.5	2.8	10.3	4.1	4.8	5.28	30.676	. .	[illegible]
	20	Lalande 35041 . .	8.5	3	IV–VI.	246	45	5.0	1.4	3.4	10.9	7.1	10.3	6.35	29.687	. .	[illegible]
	21	B. A. C. 6455 . .	7.0	3	III–VII.	349	50	7.8	6.1	4.8	10.7	5.9	6.9	7.03	28.668	. .	[illegible]
	22	B. A. C. 6502 . .	6.5	3	III–VII.	341	55	6.7	3.7	3.9	8.2	6.5	5.9	5.82	26.250	. .	[illegible]
	23	Anon. 19h. 3m. 26s. .	8.5	2	III, VII.	326	55	4.9	2.7	0.0	3.9	4.5	4.2	3.37	30.630	. .	[illegible]
	24	B. A. C. 6590 . .	5.5	1	V.	334	40	5.9	3.0	0.3	4.9	4.2	5.1	3.90	33.964	. .	[illegible]
	25	*ψ*³ Sagittarii . . .	5.0	2	IV, IX	343	5	8.4	5.3	4.0	8.9	7.1	7.1	6.80	30.610	. .	[illegible]
	26	Nadir	. .	5	. .	100	0	7.2	6.2	2.4	12.2	8.9	12.2	8.18	30.044	. .	. .
19	27	B. A. C. 5884 . . .	. .	3	III–VII.	348	30	8.0	59.7	3.0	6.8	4.0	5.1	4.43	34.447	+ 0.100	[illegible]
	28	Lacaille 7357 . . .	. .	3	IV–VI.	356	40	8.0	0.1	2.1	8.9	4.0	4.8	4.65	37.438	. .	[illegible]
	29	*β* Ophiuchi . . .	. .	3	III–VII.	314	15	8.0	57.0	59.7	2.1	5.8	6.0	3.10	29.465	. .	[illegible]
	30	Nadir	. .	5	. .	100	0	7.2	0.0	59.7	8.0	7.1	8.9	5.15	29.945	. .	. .
20	31	Lacaille 8341 . .	7.0	3	III–VII.	354	50	5.6	5.0	4.1	9.6	3.5	5.2	5.50	26.238	+ 0.098	[illegible]
	32	O. Arg. S. 20339 .	9.0	3	III, VII, IX.	334	40	6.6	4.1	2.3	7.9	5.8	6.1	5.47	35.599	. .	[illegible]
	33	Anon. 20h. 17m. 52s.	9.0	3	IV–VI.	341	5	6.9	5.8	4.7	10.6	5.2	5.4	6.43	31.440	. .	[illegible]
	34	O. Arg. S. 20575 .	8.5	3	IV–VI.	347	55	5.2	3.7	3.9	10.1	3.0	5.2	5.18	32.227	. .	[illegible]
	35	B. A. C. 7071 . .	7.5	2	I, IX.	"	"	"	"	"	"	"	"	"	32.900	. .	[illegible]
	36	Weisse XX, 847 . .	8.5	3	III–VII.	328	50	5.7	3.5	1.8	7.0	3.2	3.9	4.18	26.943	. .	[illegible]
	37	B. A. C. 7195 . .	7.3	3	III–VII.	342	10	7.2	4.3	5.2	8.8	5.4	5.2	6.02	27.379	. .	[illegible]
	38	7 Aquarii	5.5	3	III–VII.	329	5	5.8	3.8	2.9	7.9	4.1	4.6	4.85	31.184	. .	[illegible]
	39	O. Arg, S. 21072 .	8.5	3	IV–VI.	346	55	7.6	4.9	6.2	10.9	6.2	7.1	7.15	31.305	. .	[illegible]
	40	O. Arg. S. 21154 .	9.0	3	IV–VI.	342	5	8.0	5.6	5.8	9.9	7.0	6.7	7.17	37.051	. .	[illegible]
	41	Lacaille 8758 . .	7.0	3	V–IX.	350	10	8.5	6.1	6.5	12.1	6.3	7.1	7.77	32.933	. .	[illegible]
	42	O. Arg. S. 21452 .	8.3	2	IV, IX.	343	35	9.0	7.2	6.0	11.9	8.4	8.7	8.53	29.400	. .	[illegible]
	43	41 Capricorni . . .	5.5	3	III–VII.	342	45	5.1	3.2	3.8	7.0	4.2	3.4	4.45	33.710	. .	[illegible]
	44	Nadir	. .	5	. .	100	0	8.2	6.8	3.5	13.3	8.8	11.9	8.75	30.061	. .	.
22	45	B. A. C. 6490 . .	6.5	3	III–VII.	343	55	7.8	5.4	4.9	11.9	6.1	6.1	7.03	33.670	+ 0.097	[illegible]
	46	Lalande 35791 . .	8.0	2	VIII, IX.	320	20	5.8	4.2	3.2	7.4	5.1	5.9	5.27	27.062	. .	[illegible]
	47	Weisse XIX, 224 .	. .	2	III, VII.	318	5	8.0	6.3	3.8	9.0	7.1	8.0	7.03	33.858	. .	[illegible]
	48	Greenwich Cat. 1728	. .	3	III–VII.	334	10	3.7	2.1	0.3	7.0	1.8	1.9	2.80	28.311	. .	[illegible]
	49	*β* Cygni, (2d *) . .	6.0	3	IV–VI.	291	10	9.1	6.8	5.9	12.6	10.1	11.1	9.27	26.869	. .	[illegible]
	50	Weisse XIX, 875 .	7.0	1	V.	307	15	2.9	1.5	0.1	5.2	3.5	5.2	3.07	28.872	. .	[illegible]
	51	Weisse XIX, 886 .	8.0	1	VII.	"	"	"	"	"	"	"	"	"	31.517	. .	[illegible]
	52	B. A. C. 6855 . .	6.0	3	III–VII.	302	45	4.4	2.8	1.9	8.1	5.7	5.1	4.67	30.935	. .	[illegible]
	53	*η* Sagittæ	5.5	3	III–VII.	299	15	3.9	1.5	59.1	5.9	3.2	4.0	2.93	27.814	. .	[illegible]
	54	*θ* Aquilæ	. .	1	IX.	320	5	7.2	4.8	3.2	8.7	4.9	5.8	5.77	29.709	. .	[illegible]
	55	Nadir	. .	5	. .	100	0	5.9	6.0	2.9	12.2	7.6	9.4	7.33	30.017	. .	. .
25	56	*γ*² Sagittarii	5.5	3	IV–VI.	349	20	7.6	6.8	5.4	12.3	6.6	6.7	7.57	36.843	+ 0.114	[illegible]
	57	B. A. C. 6173 . .	7.0	3	V–IX.	348	40	6.3	6.4	4.7	10.3	6.1	5.3	6.52	25.052	. .	[illegible]
	58	Anon. 18h. 14m. 30s.	9.3	1	IX.	345	20	6.2	5.4	2.6	7.9	5.1	4.2	5.23	25.207	. .	[illegible]
	59	Anon. 18h. 14m. 26s.	9.3	1	V.	"	"	"	"	"	"	"	"	"	26.532	. .	[illegible]
	60	B. A. C. 6310 . .	7.5	3	IV–VI.	349	50	5.8	5.1	3.5	9.9	5.8	4.9	5.83	30.536	. .	[illegible]
	61	Anon. 18h. 25m. 55s.	8.5	2	VII, IX.	"	"	"	"	"	"	"	"	"	32.238	. .	[illegible]
	62	O. Arg. S. 18505 .	9.0	1	I.	344	30	4.9	3.7	1.9	7.3	4.9	4.2	4.48	32.968	. .	[illegible]
	63	O. Arg. S. 18506, (1st *)	8.3	2	III, VI.	"	"	"	"	"	"	"	"	"	32.323	. .	[illegible]
	64	O. Arg. S. 18506, (2d *)	8.0	2	VII, IX.	"	"	"	"	"	"	"	"	"	32.440	. .	[illegible]
	65	B. A. C. 6400 . .	7.0	3	I–V.	341	50	5.9	4.5	2.8	8.5	5.3	4.1	5.18	27.202	. .	[illegible]
	66	O. Arg. S. 18878 .	8.3	2	VIII, IX.	340	10	5.9	4.4	2.7	8.5	4.7	4.1	5.05	27.849	. .	[illegible]

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	− 2 29.5	S. 75 57 37.8	3 40.3	− 37 7 38.9	+ 3.4	Y.	
2	. .	. .	. .	− 39.5	62 9 26.8	1 45.8	− 23 17 33.4	+ 1.1	Y.	
3	. .	. .	. .	− 2 22.8	79 7 42.0	4 43.3	− 40 18 46.1	+ 5.5	Y.	
4	30.080	74.1	69.6	− 2 44.9	S. 75 7 20.7	3 27.9	− 36 17 9.4	+ 5.5	Y.	
5	. .	. .	. .	− 2 43.3	N. 19 32 37.5	19.9	+ 58 26 36.6	− 4.0	Y.	
6	. .	. .	. .	. . .	. . . .	. . .	. . . .	. .	Y.	
7	30.180	80.5	77.7	− 1 53.7	S. 69 3 14.7	2 23.7	− 30 11 59.2	− 11.0	Y.	
8	. .	. .	. .	− 14.6	6 14 53.0	6.1	+ 32 38 40.1	− 28.3	Y.	
9	. .	. .	. .	+ 1 47.4	77 21 52.0	4 1.6	− 38 32 14.4	− 6.3	Y.	—0″.02 added to mean of A, B, C, D.
10	. .	. .	77.8	+ 1 33.0	72 16 41.9	2 51.5	− 33 25 54.2	− 7.3	Y.	
11	. .	. .	. .	+ 59.3	73 6 2.8	3 0.3	− 34 15 23.9	− 6.4	Y.	
12	30.186	80.0	77.2	+ 1 54.0	30 11 56.4	32.3	+ 8 41 10.5	− 18.4	Y.	
13	. .	. .	. .	+ 1 7.2	75 11 16.6	3 26.5	− 36 21 3.9	− 4.3	Y.	
14	. .	. .	. .	+ 2 8.8	75 12 18.2	3 26.8	− 36 22 5.8	− 4.3	Y.	
15	. .	. .	. .	− 1 23.9	69 58 41.2	2 31.2	− 31 7 33.2	− 4.9	Y.	
16	30.194	79.7	76.6	− 30.8	72 59 33.3	2 59.5	− 34 8 53.6	− 3.3	Y.	
17	. .	. .	. .	+ 19.1	70 40 22.2	2 37.1	− 31 49 20.1	− 3.0	Y.	
18	. .	. .	. .	+ 1 59.8	81 12 7.6	5 43.0	− 42 24 11.4	+ 0.6	Y.	
19	. .	. .	. .	− 24.4	S. 70 59 40.8	2 40.0	− 32 8 41.6	− 1.5	Y.	
20	. .	. .	. .	+ 7.0	N. 33 14 46.7	36.5	+ 72 9 2.4	− 16.9	Y.	
21	30.200	79.0	76.0	+ 38.5	S. 69 50 45.5	2 30.4	− 30 59 36.7	+ 0.2	Y.	
22	. .	. .	. .	+ 1 54.2	61 57 0.0	1 44.1	− 23 5 4.9	− 1.0	Y.	
23	. .	. .	. .	− 22.8	46 54 40.5	59.5	− 8 2 0.8	− 3.7	Y.	
24	. .	. .	. .	− 2 7.1	54 37 56.8	1 18.3	− 15 45 35.9	− 1.0	Y.	
25	30.200	78.8	75.8	− 22.4	63 4 44.4	1 49.2	− 24 12 54.4	+ 1.6	Y.	Cloudy.
26	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
27	30.091	81.0	79.2	− 2 22.5	68 27 41.9	2 18.7	− 29 36 21.4	− 10.0	D.	Cloudy.
28	. .	. .	79.1	− 3 56.0	76 36 8.6	3 46.8	− 37 46 16.2	− 6.4	D.	
29	. .	. .	. .	+ 13.6	34 15 16.7	37.5	+ 4 37 45.0	− 18.6	D.	
30	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
31	30.030	79.4	76.0	+ 1 54.4	74 51 59.9	3 21.4	− 36 1 42.1	+ 8.4	Y.	
32	. .	. .	. .	− 2 58.4	54 37 7.0	1 17.8	− 15 44 45.6	+ 5.5	Y.	
33	. .	. .	. .	− 48.2	61 4 18.2	1 39.9	− 22 12 18.9	+ 7.7	Y.	
34	. .	. .	. .	− 1 12.8	67 53 52.3	2 15.5	− 29 2 28.6	+ 9.4	Y.	
35	30.030	79.1	75.4	− 1 34.7	67 53 30.4	2 15.5	− 29 2 6.7	+ 9.4	Y.	
36	. .	. .	. .	+ 1 32.6	48 51 36.7	1 3.4	− 9 59 0.9	+ 7.6	Y.	
37	. .	. .	. .	+ 1 18.8	62 11 24.8	1 44.7	− 23 19 30.3	+ 10.0	Y.	
38	30.028	79.0	74.8	− 40.2	49 4 24.6	1 3.9	− 10 11 49.3	+ 9.4	Y.	
39	. .	. .	. .	− 44.0	66 54 23.1	2 9.3	− 28 2 53.2	+ 12.0	Y.	
40	. .	. .	. .	− 3 43.8	62 1 23.3	1 44.1	− 23 9 28.2	+ 11.9	Y.	
41	. .	. .	. .	− 1 35.1	70 8 32.6	2 32.4	− 31 17 25.8	+ 13.3	Y.	
42	30.038	78.5	74.3	+ 15.4	63 35 23.9	1 51.3	− 24 43 36.0	+ 13.9	Y.	Cloudy.
43	. .	. .	. .	− 1 59.4	62 43 5.0	1 47.3	− 23 51 13.1	+ 14.5	Y.	
44	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
45	30.144	76.0	71.1	− 1 58.1	63 53 8.9	1 53.9	− 25 1 23.6	− 0.6	Y.	
46	. .	. .	. .	+ 1 29.2	40 21 34.4	47.7	− 1 28 42.9	− 5.7	Y.	
47	. .	. .	. .	− 2 3.8	38 3 3.2	43.9	+ 0 49 52.1	− 4.9	Y.	Cloudy; faint.
48	. .	. .	. .	+ 49.7	54 10 52.5	1 17.7	− 15 18 31.0	− 0.2	Y.	Faint; cloudy.
49	30.152	75.4	70.5	+ 1 35.0	11 11 44.2	11.1	+ 27 41 43.9	− 7.2	Y.	
50	. .	. .	. .	+ 32.3	27 15 35.3	28.9	+ 11 37 35.0	− 3.4	Y.	Whole rev. recorded 29.
51	. .	. .	. .	− 50.3	27 14 12.7	28.9	+ 11 38 57.6	− 3.4	Y.	
52	30.154	75.0	70.2	− 32.2	22 44 32.4	23.6	+ 16 8 43.2	− 1.4	Y.	
53	. .	. .	. .	+ 1 5.5	19 16 8.4	19.6	+ 19 37 11.2	− 0.7	Y.	
54	. .	. .	. .	+ 6.3	40 5 12.0	47.3	− 1 12 20.1	+ 2.8	Y.	
55	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
56	30.132	76.7	72.7	− 3 37.8	69 16 29.7	2 26.5	− 30 25 17.0	− 5.5	Y.	
57	. .	. .	. .	+ 2 31.1	68 42 37.6	2 22.4	− 29 51 20.8	− 4.6	Y.	
58	. .	. .	. .	+ 2 26.0	65 22 31.2	2 1.4	− 26 30 53.4	− 4.7	Y.	
59	. .	. .	. .	+ 1 45.0	65 21 50.2	2 1.4	− 26 30 12.4	− 4.7	Y.	
60	. .	. .	. .	− 20.4	69 49 45.4	2 31.1	− 30 58 37.3	− 2.1	Y.	
61	. .	. .	. .	− 1 14.0	69 48 51.8	2 31.0	− 30 57 43.6	− 2.1	Y.	
62	. .	. .	. .	− 1 37.5	64 28 26.9	1 56.8	− 25 36 44.5	− 3.0	Y.	
63	. .	. .	. .	− 1 16.5	64 28 47.9	1 56.8	− 25 37 5.5	− 3.0	Y.	
64	30.146	76.0	71.7	− 1 20.2	64 28 44.2	1 56.8	− 25 37 1.8	− 3.0	Y.	
65	. .	. .	. .	+ 1 23.6	61 51 28.7	1 44.4	− 22 59 33.9	− 2.5	Y.	
66	. .	. .	. .	+ 1 3.5	S. 60 11 8.5	1 37.5	− 21 19 6.8	− 2.1	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.							MICROMETER.		
						A.	B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Corr'd
						° ′ ″	″	″	″	″	″	″	r.	r.	r.
1868. Aug. 25	1	Nadir	. .	5	. .	100 0 6.4	6.8	2.9	12.7	9.8	11.1	8.28	30.031	. .	. .
	2	χ^2 Sagittarii	7.0	3	III-VII.	343 30 4.3	1.2	0.0	6.7	2.9	3.1	3.03	26.777	. .	26.[illegible]
	3	Lacaille 8143	6.5	3	III-VII.	353 20 7.8	6.2	5.8	12.9	7.9	6.7	7.88	32.051	. .	32.1[illegible]
	4	O. Arg S. 19798	8.0	3	V-IX.	347 55 5.7	4.4	3.3	9.5	3.2	4.9	5.17	33.297	. .	33.41[illegible]
	5	Dorpat 2562, (1st *)	8.5	1	V.	310 50 6.9	5.1	2.9	8.4	6.7	7.1	6.18	32.724	. .	32.[illegible]
	6	Dorpat 2562, (2d *)	7.3	2	VII, IX.	" " "	"	"	"	"	"	"	32.974	. .	33.0[illegible]
	7	57 Sagittarii	5.0	3	III-VII.	338 15 4.2	2.3	0.5	7.0	1.9	1.8	2.95	30.789	. .	30.[illegible]
	8	B. A. C. 6857	6.0	3	IV-VI.	278 55 6.7	4.7	2.8	11.1	8.1	10.5	7.32	35.029	. .	35.141
	9	η Sagittæ	5.5	3	IV-VI.	299 15 7.2	6.1	2.8	9.9	8.4	8.7	7.18	27.980	. .	28.0[illegible]
	10	18 Vulpeculæ	6.0	3	V-IX.	292 25 4.8	3.6	0.2	8.4	7.0	7.9	5.32	35.376	. .	35.47[illegible]
26	11	B. A. C. 6401	. .	3	IV-VI.	345 50 4.8	57.9	59.1	3.2	2.2	1.1	1.38	36.585	+ 0.102	36.6[illegible]
	12	Radcliffe 4208	. .	3	1-5.	232 20 7.0	57.1	3.0	11.6	7.0	8.2	5.65	26.391	. .	26.4[illegible]
	13	Nadir	. .	5	. .	100 0 6.6	1.1	0.0	9.1	7.9	8.3	5.50	29.954	. .	. .
	14	Lacaille 8271	. .	3	III-VII.	357 15 6.8	0.1	3.0	9.1	4.9	oblit.	4.48	32.490	. .	32.6[illegible]
27	15	B. A. C. 5980	6.5	3	III-VII.	351 25 7.3	3.1	3.4	7.1	4.7	5.9	5.25	26.842	+ 0.100	26.[illegible]
	16	B. A. C. 6044	6.0	3	III-VII.	346 5 3.9	58.0	57.7	0.9	0.2	1.9	0.43	27.130	. .	27.2[illegible]
	17	B. A. C. 6098	6.0	3	III-VII.	339 35 7.7	4.8	4.5	8.9	6.6	7.1	6.60	28.260	. .	28.3[illegible]
	18	O. Arg. S. 17648	7.5	3	V-IX.	340 5 5.3	1.9	0.9	5.9	4.2	4.2	3.73	30.693	. .	30.7[illegible]
	19	O. Arg. S. 17681	7.5	2	VII, IX.	" " "	"	"	"	"	"	"	24.292	. .	24.3[illegible]
	20	O. Arg. S. 17892	8.0	1	V.	337 55 10.7	6.2	5.1	9.9	8.9	9.4	8.37	38.252	. .	38.3[illegible]
	21	O. Arg. S. 17928	8.0	1	V.	" " "	"	"	"	"	"	"	36.840	. .	36.9[illegible]
	22	Anon. 18h. 8m. 42s.	8.5	1	V.	" " "	"	"	"	"	"	"	34.372	. .	34.47[illegible]
	23	O. Arg. S. 17965	7.2	2	V, IX.	" " "	"	"	"	"	"	"	34.701	. .	34.8[illegible]
	24	B. A. C. 6244	7.5	3	III-VII.	350 45 9.9	4.7	3.8	10.3	6.8	7.0	7.08	38.971	. .	39.07[illegible]
	25	B. A. C. 6310	8.0	3	IV-VI.	349 50 3.7	0.2	59.1	5.2	1.5	2.0	1.95	30.398	. .	30.[illegible]
	26	O. Arg. N. 18534	8.0	3	IV-VI.	246 35 5.5	0.2	2.7	10.9	7.1	10.1	6.08	28.278	. .	28.3[illegible]
	27	Lalande 35006	7.5	3	V-VII.	" " "	"	"	"	"	"	"	24.049	. .	24.1[illegible]
	28	Nadir	. .	5	. .	100 0 6.5	3.0	0.0	9.1	7.5	11.4	6.25	29.980	. .	. .
31	29	Anon. 17h. 48m. 9s.	. .	2	IV, V.	353 30 8.0	59.0	1.0	5.8	4.3	5.0	3.85	27.104	. .	27.20[illegible]
	30	Anon. 17h. 47m. 39s.	. .	1	IX.	" " "	"	"	"	"	"	"	26.927	. .	27.0[illegible]
	31	O. Arg. S. 17540	. .	3	IV-VI.	343 10 9.0	59.8	1.7	4.2	6.2	6.6	4.58	29.126	. .	29.2[illegible]
	32	Lamont 5992	. .	1	IX.	316 20 8.1	55.9	57.6	1.0	4.8	6.9	2.38	38.373	. .	38.4[illegible]
	33	Weisse XVIII, 18	. .	2	VII, IX.	" " "	"	"	"	"	"	"	34.003	. .	34.0[illegible]
	34	Anon. 18h. 15m. 53s.	. .	3	IV-VI.	357 30 8.2	0.0	1.8	7.2	5.0	oblit.	4.78	33.770	. .	33.8[illegible]
	35	O. Arg. S. 18317	. .	3	III-VII.	342 15 8.0	59.2	0.9	4.9	5.8	4.0	3.80	28.157	. .	28.2[illegible]
	36	Anon. 18h. 31m. 19s.	9.0	2	V, VII.	331 35 7.0	56.9	58.9	2.1	4.0	3.9	2.13	28.530	. .	28.62[illegible]
	37	O. Arg. S. 18584	. .	3	V-VII.	338 15 8.0	57.1	59.8	3.7	3.8	3.9	2.72	33.581	. .	33.6[illegible]
	38	Lalande 34860	. .	3	III-VII.	" " "	"	"	"	"	"	"	34.968	. .	35.07[illegible]
	39	Lalande 35046	. .	3	III-VII.	339 15 8.7	58.2	1.2	4.8	5.2	5.0	3.85	33.163	. .	33.2[illegible]
	40	O. Arg. S. 18913	. .	3	III-VII.	338 20 8.0	57.0	59.0	3.0	3.2	3.1	2.22	31.383	. .	31.4[illegible]
	41	Anon. 18h. 58m. 36s.	. .	3	IV-VI.	342 20 7.5	58.0	0.2	4.0	4.3	4.0	3.00	32.234	. .	32.3[illegible]
	42	Lalande 36252	. .	3	III-VII.	341 15 8.0	59.8	1.0	6.7	5.2	4.3	4.17	35.416	. .	35.5[illegible]
	43	Weisse (2) XIX, 616	. .	3	III-VII.	299 25 8.0	59.1	58.1	3.4	6.7	7.5	3.80	32.612	. .	32.7[illegible]
	44	Anon. 19h. 27m. 41s.	. .	3	II-IV.	347 50 8.7	0.1	4.0	6.2	5.0	6.2	5.03	29.111	. .	29.2[illegible]
	45	O. Arg. S. 19737	. .	2	IV, V.	" " "	"	"	"	"	"	"	32.867	. .	32.9[illegible]
	46	O. Arg. S. 19746	. .	3	VI-VIII.	" " "	"	"	"	"	"	"	32.018	. .	32.12[illegible]
	47	Weisse (2) XIX, 1330	. .	3	III-VII.	284 10 8.5	58.8	1.1	6.0	8.8	10.0	5.53	30.058	. .	30.1[illegible]
	48	Nadir	. .	5	. .	100 0 7.9	0.1	59.4	7.2	7.8	10.1	5.42	29.953	. .	. .
Sept. 5	49	B. A. C. 6031	5.5	3	V-IX.	353 10 8.1	6.9	5.4	13.1	7.7	7.3	8.08	23.936	+ 0.094	24.0[illegible]
	50	Anon. 17h. 52m. 22s.	8.0	3	V-IX.	347 30 3.5	0.8	0.5	6.8	0.3	1.7	2.27	23.581	. .	23.6[illegible]
	51	B. A. C. 6127	5.5	3	V-IX.	347 20 7.9	5.5	4.7	11.5	4.9	7.1	6.93	31.140	. .	31.2[illegible]
	52	Anon. 18h. 5m. 12s.	8.0	3	III-VII.	356 30 5.4	3.9	3.1	11.0	3.1	3.1	4.93	32.131	. .	32.2[illegible]
	53	Anon. 18h. 5m. 29s.	8.3	2	VII, IX.	" " "	"	"	"	"	"	"	28.632	. .	28.7[illegible]
	54	Lacaille 7661	6.3	3	V-IX.	354 20 2.8	1.2	0.2	6.2	1.2	1.0	2.10	31.733	. .	31.8[illegible]
	55	B. A. C. 6283	7.0	3	III-VII.	347 45 6.2	3.5	3.8	9.8	4.0	5.0	5.38	31.934	. .	32.0[illegible]
	56	Lacaille 7765	6.0	3	III-VII.	358 35 7.3	6.4	6.2	14.8	7.4	5.1	7.87	27.091	. .	27.1[illegible]
	57	O. Arg. S. 18536	7.0	3	III-VII.	344 0 5.4	3.3	1.8	9.2	4.0	3.9	4.60	33.703	. .	33.8[illegible]
	58	O. Arg. S. 18568	6.0	3	IV-VI.	" " "	"	"	"	"	"	"	28.121	. .	28.21[illegible]
	59	B. A. C. 6369	5.5	3	V-IX.	" " "	"	"	"	"	"	"	30.009	. .	30.1[illegible]
	60	Anon. 18h. 43m. 59s.	8.2	3	III-VII.	350 0 9.2	6.5	5.6	12.9	7.4	7.0	8.10	31.367	. .	31.4[illegible]
	61	O. Arg. S. 18907	9.0	3	V-IX.	341 0 5.1	2.4	1.3	9.2	3.5	2.1	3.93	36.727	. .	36.8[illegible]
	62	O. Arg. S. 19083	6.5	3	III-VII.	335 20 3.9	0.3	0.2	5.7	2.2	1.7	2.33	34.185	. .	34.2[illegible]
	63	Lacaille 8045	6.7	3	III-VII.	352 35 8.4	7.3	6.1	13.7	6.2	6.1	7.97	28.371	. .	28.4[illegible]
	64	Lacaille 8051	6.0	2	VII, IX.	" " "	"	"	"	"	"	"	29.019	. .	29.1[illegible]
	65	O. Arg. S. 19525	8.0	3	IV-VI.	338 20 6.6	3.7	3.9	9.9	4.7	3.8	5.43	34.480	. .	34.5[illegible]

Number.	Barometer.	THERM'S.		Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.							
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
2	30.148	75.2	70.7	+ 1 37.2	S. 63 31 40.2	1 52.2	− 24 39 53.2	+ 1.9	Y.	
3	. .	. .	. .	− 1 8.0	73 18 59.8	3 5.0	− 34 28 25.6	+ 5.2	Y.	
4	. .	. .	. .	− 1 47.0	67 53 18.1	2 17.3	− 29 1 56.2	+ 4.4	Y.	
5	. .	. .	. .	− 1 28.8	30 48 37.3	33.5	+ 8 4 28.4	− 3.0	Y.	
6	. .	. .	. .	− 1 36.3	30 48 29.8	33.5	+ 8 4 35.9	− 3.0	Y.	
7	30.150	74.7	69.8	− 28.4	S. 58 14 34.5	1 30.6	− 19 22 25.9	+ 3.7	Y.	
8	. .	. .	. .	− 2 40.9	N. 1 7 33.6	1.1	+ 40 1 13.9	− 4.2	Y.	
9	. .	. .	. .	+ 59.7	S. 19 16 6.8	19.7	+ 19 37 12.7	− 1.3	Y.	
10	30.142	74.0	69.2	− 2 51.4	12 22 13.9	12.3	+ 26 31 13.0	− 1.1	Y.	External thermometer recorded 62°.2.
11	30.180	77.0	74.1	− 3 29.4	S. 65 46 31.9	2 3.4	− 26 54 56.1	− 1.4	D.	
12	30.190	76.7	73.6	+ 1 49.8	N. 47 38 4.6	1 1.2	+ 86 32 45.0	− 14.1	D.	Bar. and ther. read at 19h. 22m.
13	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
14	30.195	76.5	73.0	− 1 21.4	S. 77 13 43.0	4 1.4	− 38 24 5.2	+ 8.5	D.	—0″.27 added to mean of A, B, C, D.
15	30.218	80.0	79.0	+ 1 35.5	71 26 40.7	2 43.3	− 32 35 44.8	− 7.2	Y.	
16	. .	. .	. .	+ 1 26.5	66 6 26.9	2 4.5	− 27 14 52.2	− 7.8	Y.	
17	. .	. .	. .	+ 51.2	59 35 57.8	1 34.3	− 20 43 52.9	− 8.8	Y.	
18	. .	. .	. .	− 24.9	60 4 38.8	1 36.2	− 21 12 35.8	− 8.1	Y.	
19	. .	. .	. .	+ 2 55.4	60 7 59.1	1 36.4	− 21 15 56.3	− 8.1	Y.	
20	. .	. .	. .	− 4 21.4	57 50 46.9	1 28.2	− 18 58 35.9	− 7.9	Y.	
21	. .	. .	. .	− 3 37.2	57 51 31.1	1 28.3	− 18 59 20.2	− 7.8	Y.	
22	. .	. .	. .	− 2 20.0	57 52 48.3	1 28.3	− 19 0 37.4	− 7.7	Y.	
23	30.228	79.5	77.2	− 2 30.4	57 52 37.9	1 28.3	− 19 0 27.0	− 7.7	Y.	Barometer recorded 30.328.
24	. .	. .	. .	− 4 44.1	70 40 22.9	2 37.2	− 31 49 20.9	− 2.7	Y.	
25	. .	. .	. .	− 15.7	S. 69 49 46.2	2 30.3	− 30 58 37.3	− 2.0	Y.	
26	. .	. .	. .	+ 51.1	N. 33 24 2.9	36.8	+ 72 18 18.9	− 19.3	Y.	
27	30.240	79.1	76.0	+ 3 4.0	N. 33 21 50.0	36.7	+ 72 16 5.9	− 19.0	Y.	
28	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	Cloudy.
29	. .	. .	. .	+ 1 27.4	S. 73 31 31.2	3 2.8	− 34 40 54.8	− 4.8	D.	
30	29.982	83.0	80.3	+ 1 32.3	73 31 36.1	3 2.9	− 34 40 59.8	− 4.9	D.	
31	. .	. .	. .	+ 21.2	63 10 28.7	1 48.0	− 24 18 37.5	− 7.4	D.	
32	. .	. .	. .	− 4 24.9	36 15 37.4	40.2	+ 2 37 21.6	− 15.4	D.	
33	. .	. .	. .	− 2 8.2	36 17 54.1	40.3	+ 2 35 4.8	− 15.1	D.	
34	29.998	82.8	79.9	− 2 1.2	77 28 3.5	4 1.1	− 38 38 25.4	− 0.4	D.	+0″.48 added to mean of A, B, C, and D.
35	. .	. .	. .	+ 54.4	62 15 58.2	1 44.1	− 23 24 3.1	− 4.4	D.	
36	. .	. .	. .	+ 42.9	51 35 45.0	1 9.2	− 12 43 15.0	− 6.8	D.	
37	. .	. .	. .	− 1 55.2	58 13 7.5	1 28.5	− 19 20 56.8	− 4.2	D.	
38	. .	. .	. .	− 2 38.7	58 12 24.0	1 28.5	− 19 20 13.3	− 3.6	D.	
9	. .	. .	78.8	− 1 42.3	59 13 21.5	1 32.1	− 20 21 14.4	− 2.8	D.	
0	. .	. .	. .	− 46.5	58 19 15.7	1 28.9	− 19 27 5.4	− 2.2	D.	
1	. .	. .	. .	− 1 13.1	62 18 49.9	1 44.5	− 23 26 55.2	+ 0.8	D.	
2	30.004	81.8	77.5	− 2 52.8	61 12 11.3	1 40.0	− 22 20 12.1	+ 0.9	D.	
3	. .	. .	. .	− 1 24.8	19 23 39.0	19.4	+ 19 29 40.8	− 8.0	D.	
4	. .	. .	. .	+ 24.2	67 50 29.2	2 14.5	− 28 59 4.5	+ 4.6	D.	
5	. .	. .	. .	− 1 33.0	67 48 32.0	2 14.3	− 28 57 7.1	+ 4.6	D.	
6	. .	. .	. .	− 1 6.4	67 48 58.6	2 14.4	− 28 57 33.8	+ 4.6	D.	
7	29.996	81.0	77.0	− 4.7	4 10 0.8	4.0	+ 34 43 34.4	− 6.9	D.	
8	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
9	30.064	75.5	70.9	+ 3 6.6	73 13 14.6	3 3.2	− 34 22 38.6	− 5.3	Y.	
0	. .	. .	. .	+ 3 17.8	67 33 20.0	2 14.7	− 28 41 55.5	− 6.2	Y.	
1	. .	. .	. .	− 38.8	67 19 28.1	2 13.3	− 28 28 2.2	− 5.4	Y.	
2	. .	. .	. .	− 1 9.9	76 28 55.0	3 48.6	− 37 39 4.4	− 1.6	Y.	
3	. .	. .	69.7	+ 39.3	76 30 44.2	3 49.1	− 37 40 54.1	− 1.6	Y.	
4	. .	. .	. .	− 57.5	74 19 4.6	3 16.9	− 35 28 42.3	− 1.6	Y.	
5	30.068	75.0	69.2	− 1 3.6	67 44 1.7	2 16.2	− 28 52 38.7	− 2.6	Y.	
6	. .	. .	. .	+ 1 27.8	78 36 35.6	4 31.0	− 39 47 27.4	+ 1.5	Y.	
7	. .	. .	. .	− 1 59.0	63 58 5.6	1 54.6	− 25 6 21.0	− 2.4	Y.	
8	. .	. .	. .	+ 55.8	64 1 0.4	1 54.9	− 25 9 16.1	− 2.3	Y.	
9	. .	. .	. .	− 3.4	64 0 1.2	1 54.8	− 25 8 16.8	− 2.0	Y.	
0	30.078	74.4	67.7	− 45.9	69 59 22.2	2 33.3	− 31 8 16.3	+ 0.8	Y.	
1	. .	. .	. .	− 3 33.6	60 56 30.3	1 41.1	− 22 4 32.2	− 1.3	Y.	
2	. .	. .	. .	− 2 14.0	55 17 48.3	1 21.3	− 16 25 30.4	− 2.1	Y.	
3	. .	. .	. .	+ 47.8	72 35 55.7	2 57.9	− 33 45 14.4	+ 4.2	Y.	
4	. .	. .	. .	+ 27.3	72 35 35.2	2 57.9	− 33 44 53.9	+ 4.2	Y.	Whole rev. recorded 28.
5	30.072	73.7	66.3	− 2 23.2	S. 58 17 42.2	1 31.2	− 19 25 34.2	+ 1.1	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES. A.	B.	C.	D.	E.	F.	Mean.	MICROMETER. Observed.	Nadir cor.	Corr'd.
						° ′ ″	″	″	″	″	″	″	r.	r.	r.
1868. Sept. 5	1	O. Arg. S. 19693 .	8.7	3	III–VII.	338 25 3.0	59.6	0.2	5.5	1.1	0.1	1.58	29.932	. .	[illegible]
	2	O. Arg. S. 19796 .	9.0	2	VII, IX.	346 55 4.3	1.3	2.6	6.8	2.1	2.4	3.25	25.762	. .	[illegible]
	3	O. Arg. S. 19907 .	8.0	2	VII, IX.	345 55 8.9	6.2	6.2	11.7	7.5	7.3	7.97	23.564	. .	[illegible]
	4	O. Arg. S. 20090 .	7.3	3	III–VII.	345 25 4.9	1.8	2.1	7.0	2.9	2.0	3.45	29.082	. .	[illegible]
	5	A Sagittarii	5.0	3	III–VII.	“ “ “	“	“	“	“	“	“	31.131	. .	[illegible]
	6	Nadir	. .	5	. .	100 0 4.6	3.8	1.2	11.4	6.6	7.5	5.85	29.973	. .	. .
7	7	B. A. C. 6081 . .	. .	3	III–VII.	339 10 5.7	58.0	59.8	4.1	3.0	0.8	1.90	27.059	+ 0.082	[illegible]
	8	72 Ophiuchi	. .	3	III–VII.	309 20 7.0	0.0	59.3	3.8	6.9	5.2	3.70	30.067	. .	[illegible]
	9	Anon. 18h. 7m. 48s.	6.0	3	III–VII.	337 35 7.0	0.8	1.2	5.4	5.1	3.8	3.88	32.016	. .	[illegible]
	10	Anon. 18h. 22m. 6s.	8.7	3	III–VII.	354 15 7.2	1.8	3.0	8.1	6.0	3.5	4.93	30.502	. .	[illegible]
	11	Anon. 18h. 31m. 20s.	9.0	1	IX.	331 35 8.0	1.0	2.3	6.9	6.0	4.0	4.70	28.722	. .	[illegible]
	12	O. Arg. S. 18636 .	. .	3	III–VII.	337 20 7.3	1.0	2.1	6.5	5.0	4.5	4.40	26.461	. .	[illegible]
	13	B. A. C. 6413 . .	. .	3	III–VII.	348 25 7.9	2.0	3.8	8.3	5.1	4.3	5.23	33.654	. .	[illegible]
	14	ε Coronæ Australis .	. .	3	IV–VI.	356 5 8.2	3.0	4.2	11.0	5.7	4.2	6.05	27.412	. .	[illegible]
	15	Lalande 35791 . .	. .	3	IV–VI.	320 20 8.0	0.0	1.8	5.0	6.2	5.0	4.33	27.107	. .	[illegible]
	16	η Lyræ, (2d *) . . .	9.0	3	III–VII.	280 0 8.0	1.0	2.8	9.0	9.0	8.8	6.43	34.097	. .	[illegible]
	17	B. A. C. 6628 . .	. .	3	III–VII.	347 0 7.3	0.0	3.2	7.9	5.0	3.8	4.53	33.162	. .	[illegible]
	18	Lacaille 8128 . .	. .	3	III–VII.	355 5 7.0	2.0	4.0	9.1	4.9	2.2	4.87	31.979	. .	[illegible]
	19	O. Arg. S. 19915 .	. .	3	I–V.	345 50 5.9	59.5	2.0	5.8	4.0	1.6	3.13	36.087	. .	[illegible]
	20	O. Arg. S. 19924 .	. .	3	V–IX.	“ “ “	“	“	“	“	“	“	24.546	. .	[illegible]
	21	O. Arg. S. 19988 .	. .	3	III–VII.	“ “ “	“	“	“	“	“	“	22.222	. .	[illegible]
	22	O. Arg. S. 20049 .	. .	3	I–V.	“ “ “	“	“	“	“	“	“	23.299	. .	[illegible]
	23	O. Arg. S. 20051 .	. .	3	V–IX.	“ “ “	“	“	“	“	“	“	37.047	. .	[illegible]
	24	Lacaille 8312 . .	. .	3	IV–VI.	356 45 4.4	0.0	2.0	9.0	3.0	59.4	2.97	33.766	. .	[illegible]
	25	Anon. 20h. 6m. 2s. .	. .	1	V.	336 10 6.1	0.1	2.0	5.9	4.0	2.6	3.45	30.602	. .	[illegible]
	26	B. A. C. 7080 . .	. .	3	III–VII.	329 10 6.2	0.8	2.0	5.7	4.0	2.0	3.45	29.331	. .	[illegible]
	27	Nadir	. .	5	. .	100 0 5.9	2.0	1.1	11.0	7.3	7.9	5.87	29.985	. .	. .
8	28	Anon. 18h. 35m. 11s.	9.0	3	III–VII.	330 5 6.0	4.4	1.8	8.9	4.9	4.2	5.03	27.356	+ 0.103	[illegible]
	29	Lalande 34984 . .	7.0	2	IV, VI.	325 0 8.2	7.1	2.9	9.0	8.2	7.4	7.13	37.644	. .	[illegible]
	30	Weisse XVIII, 1058	8.5	2	I, IX.	“ “ “	“	“	“	“	“	“	34.068	. .	[illegible]
	31	O. Arg. S. 18883 .	8.5	2	IV, VI.	347 50 5.7	5.2	4.7	10.2	3.9	4.3	5.67	36.364	. .	[illegible]
	32	O. Arg. S. 18915 .	8.5	1	V.	“ “ “	“	“	“	“	“	“	41.648	. .	41.751
	33	O. Org. S. 18939 .	8.5	1	V.	“ “ “	“	“	“	“	“	“	40.188	. .	[illegible]
	34	Lacaille 8022 . .	7.5	1	V.	356 35 6.8	7.9	6.2	14.5	6.7	5.0	7.85	25.323	. .	[illegible]
	35	Lacaille 8025 . .	7.5	3	I, V, IX.	“ “ “	“	“	“	“	“	“	31.993	. .	[illegible]
	36	Schjellerup 7273 .	9.0	3	III–VII.	329 5 5.0	4.8	2.8	8.9	4.7	3.9	5.02	31.298	. .	[illegible]
	37	O. Arg. S. 19600 .	8.5	3	III–VII.	344 55 5.2	3.5	2.9	8.5	4.1	3.1	4.55	33.741	. .	[illegible]
	38	O. Arg. S. 19609 .	8.3	2	VII, IX.	“ “ “	“	“	“	“	“	“	28.755	. .	[illegible]
	39	Anon. 19h. 29m. 14s.	8.3	3	III–VII.	357 50 8.9	9.4	7.6	15.9	8.8	5.8	9.40	25.875	. .	[illegible]
	40	Anon. 19h. 36m. 37s.	8.0	3	III–VII.	2 25 6.7	7.8	6.7	15.3	8.1	6.4	8.50	32.106	. .	[illegible]
	41	O. Arg. S. 20002 .	8.5	3	III–VII.	345 50 5.2	3.8	3.4	8.2	4.3	2.2	4.52	30.973	. .	[illegible]
	42	B. A. C. 6844 . .	6.0	3	III–VII.	2 10 6.0	6.4	5.8	13.2	7.3	4.9	7.27	28.071	. .	[illegible]
	43	62 Aquilæ	5.5	3	III–VII.	319 55 5.3	4.4	2.8	7.9	5.6	5.1	5.18	26.094	. .	[illegible]
	44	O. Arg. S. 20316 .	. .	3	III–VII.	346 20 4.5	2.9	2.9	7.6	4.2	2.9	4.17	33.669	. .	[illegible]
	45	B. A. C. 7014 . .	. .	3	III–VII.	314 0 7.2	4.2	2.1	8.4	8.5	6.4	6.13	35.275	. .	[illegible]
	46	Nadir	. .	5	. .	100 0 6.5	7.3	2.9	13.6	9.2	9.9	8.23	30.040	. .	. .
16	47	B. A. C. 6273 . .	. .	3	III–VII.	344 15 5.9	0.9	0.5	8.0	3.2	59.2	2.95	36.090	+ 0.096	[illegible]
	48	Lacaille 7802 . .	. .	3	III–VII.	353 10 5.9	2.1	2.9	10.9	5.0	0.8	4.60	35.616	. .	[illegible]
	49	O. Arg. S. 18587 .	7.5	3	V, VII, VIII.	339 55 5.1	0.8	3.1	10.0	4.0	0.0	3.83	30.851	. .	[illegible]
	50	O. Arg. S. 18609 .	7.5	3	V, VI, VII.	“ “ “	“	“	“	“	“	“	24.397	. .	[illegible]
	51	B. A. C. 6413 . .	. .	3	III–VII.	348 25 5.1	1.9	3.1	9.0	3.2	0.4	3.78	33.733	. .	[illegible]
	52	ε Coronæ Australis .	. .	3	III–VII.	356 5 5.8	2.2	3.8	11.0	3.0	0.1	4.32	27.425	. .	[illegible]
	53	γ Coronæ Australis .	. .	3	III–VII.	“ “ “	“	“	“	“	“	“	30.454	. .	[illegible]
	54	Nadir	. .	5	. .	100 0 5.6	3.0	2.1	12.0	7.9	5.8	6.07	29.978	. .	. .
	55	B. A. C. 6700 . .	. .	3	III–VII.	339 55 6.0	2.4	4.2	10.7	5.0	0.7	4.83	29.022	. .	[illegible]
	56	Anon. 19h. 41m. 55s.	8.0	3	III–VII.	329 10 6.1	2.9	4.0	8.5	5.0	1.0	4.58	28.443	. .	[illegible]
	57	O. Arg. S. 20101 .	8.0	3	III–VII.	344 25 6.8	2.0	4.0	9.1	6.0	0.7	4.77	33.801	. .	[illegible]
	58	63 Sagittarii . . .	. .	3	III–VII.	332 55 7.3	3.9	5.2	10.3	8.0	1.9	6.10	35.570	. .	[illegible]
18	59	Nadir	. .	5	. .	100 0 7.2	6.0	3.0	13.9	10.8	7.8	8.12	30.004	. .	. .
	60	O. Arg. S. 18317 .	. .	3	III–VII.	342 15 7.1	5.1	4.9	12.3	8.7	1.7	6.63	24.408	+ 0.136	[illegible]
	61	2 Aquilæ	. .	3	III–VII.	328 5 7.2	5.2	4.2	11.3	8.0	1.2	6.18	34.098	. .	[illegible]
	62	B. A. C. 6376 . .	. .	3	III–VII.	338 35 8.0	5.0	5.0	11.8	8.1	2.4	6.72	27.499	. .	[illegible]
	63	Anon. 18h. 42m. 32s.	8.0	3	III–VII.	349 45 7.0	5.0	4.9	12.9	8.0	1.3	6.52	25.034	. .	[illegible]
	64	Weisse XVIII, 1277	8.3	3	III–VII.	328 20 6.8	5.0	3.1	11.0	7.8	1.8	5.92	27.724	. .	[illegible]
	65	Anon. 19h. 3m. 28s. .	. .	3	III–VII.	326 55 6.2	5.0	2.1	9.2	10.0	2.0	5.75	30.828	. .	[illegible]
	66	Weisse XIX, 224 .	. .	2	VII, IX.	318 0 6.1	3.0	1.0	8.0	7.0	2.0	4.52	24.325	. .	[illegible]

Number.	Barometer.	THERM'S.		Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.							
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	− 0.9	S. 58 25 0.6	1 31.6	− 19 32 53.0	+ 2.0	Y.	
2	. .	. .	. .	+ 1 6.8	66 56 10.0	2 11.9	− 28 4 42.7	+ 5.0	Y.	Circle reading recorded 146° 55′.
3	. .	. .	. .	+ 3 18.2	65 58 26.1	2 6.1	− 27 6 53.0	+ 5.4	Y.	Whole rev. recorded 28.
4	. .	. .	. .	+ 25.6	65 25 29.0	2 3.0	− 26 33 52.8	+ 6.6	Y.	
5	30.076	72.7	65.4	− 38.5	65 24 24.9	2 3.0	− 26 32 48.7	+ 6.8	Y.	
6	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
7	30.036	76.2	71.1	+ 1 29.4	59 11 31.3	1 33.4	− 20 19 25.5	− 9.1	D.	Circle reading recorded 336° 10′.
8	. .	. .	. .	− 4.6	29 19 59.1	31.4	+ 9 33 8.7	− 17.7	D.	
9	. .	. .	. .	− 1 5.8	57 33 58.0	1 27.9	− 18 41 46.7	− 7.8	D.	
10	30.038	75.5	69.6	− 18.5	74 14 46.4	3 15.6	− 35 24 22.8	− 0.4	D.	
11	. .	. .	. .	+ 37.4	51 35 42.1	1 10.6	− 12 43 13.5	− 6.8	D.	Faint.
12	. .	. .	. .	+ 1 48.1	57 21 52.5	1 27.3	− 18 29 40.6	− 4.0	D.	
13	. .	. .	. .	− 1 57.1	68 23 8.1	2 20.5	− 29 31 49.4	+ 0.3	D.	
14	. .	. .	69.2	+ 1 18.4	76 6 24.4	3 42.5	− 37 16 27.7	+ 3.4	D.	
15	. .	. .	. .	+ 1 28.0	S. 40 21 32.3	47.7	− 1 28 40.8	− 6.3	D.	
16	. .	. .	. .	− 2 10.6	N. 0 2 4.2	0.0	+ 38 55 43.4	− 13.8	D.	Whole rev. recorded 33.
17	. .	. .	. .	− 1 41.7	S. 66 58 22.8	2 11.6	− 28 6 55.2	+ 3.5	D.	
18	30.050	73.7	67.1	− 1 4.8	75 4 0.0	3 27.8	− 36 13 48.6	+ 6.7	D.	
19	. .	. .	. .	− 3 13.6	65 46 49.5	2 4.6	− 26 55 14.9	+ 5.5	D.	Whole rev. not recorded.
20	. .	. .	. .	+ 2 48.0	65 52 51.1	2 5.2	− 27 1 17.1	+ 5.6	D.	
21	. .	. .	. .	+ 4 0.7	65 54 3.8	2 5.4	− 27 2 30.0	+ 6.1	D.	
22	. .	. .	. .	+ 3 26.7	65 53 29.8	2 5.3	− 27 1 55.9	+ 6.5	D.	
23	. .	. .	66.6	− 3 43.3	65 46 19.8	2 4.6	− 26 54 45.2	+ 6.5	D.	
24	. .	. .	. .	− 2 0.5	76 43 2.4	3 54.1	− 37 53 17.3	+ 10.4	D.	
25	. .	. .	. .	− 21.4	56 9 42.0	1 24.0	− 17 17 26.8	+ 6.0	D.	Time probably recorded on wrong wire, and
26	30 050	72.0	66.0	+ 18.3	49 10 21.7	1 5.3	− 10 17 47.8	+ 6.5	D.	A. R. 13^s less.
27	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
28	30.046	72.7	67.8	+ 1 19.5	50 6 24.5	1 7.2	− 11 13 52.5	− 6.8	Y.	
29	. .	. .	. .	− 4 2.5	44 56 4.6	56.1	− 6 3 21.5	− 7.5	Y.	Circle reading recorded 125° 0′.
30	. .	. .	. .	− 2 10.7	44 57 56.4	56.2	− 6 5 13.4	− 7.5	Y.	
31	. .	. .	. .	− 3 22.5	67 46 43.1	2 17.0	− 28 55 20.9	+ 0.8	Y.	
32	. .	. .	. .	− 6 6.2	67 43 59.4	2 16.8	− 28 52 37.0	+ 1.0	Y.	
33	30.050	72.4	66.7	− 5 22.1	67 44 43.5	2 16.9	− 28 53 21.2	+ 1.1	Y.	
34	. .	. .	. .	+ 2 23.2	76 37 31.0	3 52.9	− 37 47 44.1	+ 5.1	Y.	
35	. .	. .	. .	− 1 6.4	76 34 1.4	3 51.4	− 37 44 13.6	+ 5.1	Y.	
36	. .	. .	. .	− 44.0	49 4 21.0	1 5.0	− 10 11 46.8	− 2.3	Y.	
37	. .	. .	. .	− 2 0.5	64 53 4.0	1 59.8	− 26 1 24.6	+ 3.4	Y.	
38	. .	. .	. .	+ 35.5	64 55 40.0	1 59.9	− 26 4 0.7	+ 3.5	Y.	
39	30.052	72.0	66.7	+ 2 5.7	77 52 15.1	4 16.0	− 39 2 51.9	+ 8.2	Y.	
40	. .	. .	. .	− 1 9.5	82 23 59.0	6 38.2	− 43 36 58.0	+ 10.3	Y.	
41	. .	. .	. .	− 33.8	65 49 30.7	2 5.0	− 26 57 56.5	+ 6.2	Y.	
42	. .	. .	66.3	+ 56.8	82 11 4.0	6 28.2	− 43 23 53.0	+ 11.6	Y.	
43	. .	. .	. .	+ 1 59.0	39 57 4.1	47.3	− 1 4 12.2	+ 0.9	Y.	
44	30.056	71.5	66.0	− 1 58.2	66 18 5.9	2 7.9	− 27 26 34.6	+ 8.6	Y.	
45	. .	. .	. .	− 2 48.3	33 57 17.8	38.1	+ 4 55 43.3	+ 2.0	Y.	
46	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
47	30.108	68.0	62.2	− 3 13.8	64 11 49.1	1 57.4	− 25 20 7.3	− 3.5	D.	
48	. .	. .	. .	− 2 59.0	73 7 5.6	3 5.7	− 34 16 32.1	+ 0.7	D.	
49	. .	. .	. .	− 29.7	59 54 34.1	1 38.2	− 21 2 33.1	− 3.2	D.	
50	. .	. .	. .	+ 2 52.4	59 57 56.2	1 38.5	− 21 5 55.5	− 3.1	D.	
51	. .	. .	61.6	− 2 0.0	68 23 3.7	2 23.1	− 29 31 47.6	− 0.8	D.	
52	30.120	67.7	. .	+ 1 17.3	76 6 21.6	3 46.8	− 37 16 29.2	+ 4.0	D.	
53	. .	. .	. .	− 17.5	76 4 46.8	3 46.5	− 37 14 54.1	+ 4.9	D.	
54	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
55	30.136	67.2	60.8	+ 27.5	59 55 32.3	1 38.4	− 21 3 31.5	+ 3.2	D.	
56	. .	. .	. .	+ 45.7	49 10 50.2	1 6.2	− 10 18 17.2	+ 1.5	D.	
57	. .	. .	. .	− 2 2.2	64 23 2.5	1 59.0	− 25 31 22.3	+ 7.0	D.	
58	30.148	66.8	60.1	− 2 57.4	52 52 8.7	1 15.6	− 13 59 45.1	+ 4.2	D.	
59	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
60	30.400	62.0	. .	+ 59.7	62 15 56.3	1 50.4	− 23 24 7.5	− 4.0	D.	
61	. .	. .	. .	− 2 12.6	48 2 53.5	1 4.6	− 9 10 18.9	− 7.4	D.	
62	. .	. .	. .	+ 1 13.9	58 36 20.6	1 35.3	− 19 44 16.7	− 3.3	D.	
63	30.404	61.8	. .	+ 2 31.0	69 47 37.5	2 37.3	− 30 56 35.6	+ 1.1	D.	
64	. .	. .	. .	+ 1 6.9	48 21 12.8	1 5.7	− 9 28 39.3	− 5.2	D.	
65	30.406	61.0	54.7	− 30.2	46 54 35.5	1 2.4	− 8 1 58.7	− 4.1	D.	
66	. .	. .	. .	+ 2 53.6	S. 38 2 58.1	45.8	+ 0 49 55.3	− 5.9	D.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES. A.	B.	C.	D.	E.	F.	Mean.	MICROMETER. Observed.	Nadir cor.	Corr'd.
						° ′ ″	″	″	″	″	″	″	r.	r.	r.
1868. Sept. 18	1	Anon. 19h. 17m. 12s.	8.0	3	III–VII.	342 10 6.0	3.7	3.1	11.1	8.0	0.2	5.35	31.239	. .	31.374
	2	O. Arg. S. 19623 .	. .	3	II, VI, V.	338 35 6.8	4.2	4.0	10.9	7.7	0.6	5.70	25.367	. .	25.502
	3	O. Arg. S. 19631 .	. .	3	V, VII, VIII.	" " "	"	"	"	"	"	"	37.310	. .	37.445
	4	Weisse XIX, 692 .	. .	3	III, IV, V.	329 35 6.3	4.8	4.2	11.0	8.0	1.1	5.90	36.939	. .	37.074
	5	Weisse XIX, 719 .	. .	3	V, VI, VII.	" " "	"	"	"	"	"	"	28.767	. .	28.902
	6	Anon. 19h. 36m. 17s.	9.2	3	V, VII, IX.	310 50 7.0	5.0	2.2	9.9	9.8	3.7	6.27	30.771	. .	30.906
	7	O. Arg. S. 20039 .	. .	3	III–VII.	346 10 7.0	4.8	5.6	11.2	8.1	1.1	6.30	33.736	. .	33.871
	8	O. Arg. S. 20111 .	. .	3	III–VII.	347 55 7.4	6.4	6.7	14.1	8.1	2.8	7.58	36.977	. .	37.112
	9	Anon. 20h. 5m. 55s. .	. .	3	III–VII.	336 10 7.9	5.9	5.0	10.9	8.9	2.1	6.78	30.786	. .	30.921
	10	Anon. 30h. 17m. 23s.	. .	3	III–VII.	342 30 8.7	7.0	6.0	14.0	10.2	3.0	8.15	34.971	. .	35.111
	11	O. Arg. S. 20654 .	. .	3	III–VII.	340 40 8.8	8.0	7.0	16.0	11.0	4.1	9.28	31.707	. .	31.847
	12	Lacaille 8539 . .	. .	3	III–VII.	351 15 8.9	7.0	7.0	15.8	10.0	2.0	8.45	30.815	. .	30.950
	13	Weisse (2) XX, 1357	8.0	3	II, IV, V.	285 0 8.8	5.1	6.8	16.1	12.2	7.8	9.47	30.836	. .	30.971
	14	Anon. 20h. 42m. 10s.	9.0	3	V, VI, VII.	" " "	"	"	"	"	"	"	31.992	. .	32.121
	15	Anon. 20h. 51m. 33s.	9.5	1	IV.	338 30 8.8	6.8	6.1	13.9	8.1	1.8	7.58	27.212	. .	27.352
	16	Anon. 20h. 51m. 51s.	9.5	1	V.	" " "	"	"	"	"	"	"	24.548	. .	24.684
21	17	O. Arg. S. 18489 .	. .	3	III–VII.	337 20 9.0	6.9	5.1	11.8	9.3	5.3	7.90	27.087	+ 0.139	27.226
	18	Lalande 35004 . .	7.0	3	1–5.	246 45 8.9	7.9	8.3	18.7	15.0	12.8	11.93	31.543	. .	31.682
	19	Lalande 35041 . .	8.0	1	V.	" " "	"	"	"	"	"	"	29.948	. .	30.087
	20	Schjellerup 7066 .	. .	3	III–VII.	326 20 8.0	6.0	3.0	10.0	10.4	5.8	7.20	27.121	. .	27.260
	21	O. Arg. S. 18913 .	7.6	3	IV–VI.	338 20 9.0	6.0	4.7	11.9	9.2	4.0	7.47	31.654	. .	31.793
	22	O. Arg. S. 18913 .	7.8	3	III–VII.	" " "	"	"	"	"	"	"	23.036	. .	23.175
	23	Anon. 19h. 7m. 13s. .	. .	3	III–VII.	352 40 9.0	7.3	6.0	14.0	9.0	4.3	8.27	32.332	. .	32.471
	24	Anon. 19h. 21m. 7s. .	7.0	3	IV–VI.	334 15 9.0	6.0	3.0	11.9	9.2	3.4	7.08	31.678	. .	31.817
	25	Anon. 19h. 28m. 27s.	8.0	2	III, VIII.	0 35 9.1	8.0	7.1	17.3	10.9	5.0	9.57	28.331	. .	28.470
	26	Lacaille 8158 . .	7.0	3	IV–VI.	" " "	"	"	"	"	"	"	34.168	. .	34.307
	27	O. Arg. S. 19998 .	. .	3	III–VII.	345 20 9.8	6.7	6.0	11.0	9.7	4.1	7.88	27.538	. .	27.677
	28	O. Arg. S. 20100 .	. .	2	IV–V.	346 45 10.0	6.6	7.2	13.0	9.4	5.7	8.65	33.536	. .	33.675
	29	Anon. 19h. 47m. 21s.	. .	2	VIII, IX.	" " "	"	"	"	"	"	"	33.292	. .	33.431
	30	Anon. 20h. 1m. 39s. .	9.0	3	III–VII.	335 10 8.0	4.7	2.9	9.8	7.9	3.8	6.18	28.714	. .	28.853
	31	Nadir	. .	5	. .	100 0 7.7	6.2	3.1	13.7	12.0	8.3	8.50	30.012	. .	. .
	32	Lacaille 8539 . .	. .	3	IV–VI.	351 15 8.0	6.1	5.7	13.8	9.0	3.0	7.60	30.655	. .	30.794
	33	Weisse XX, 1082 .	8.0	3	III–VII.	326 50 8.8	7.0	4.0	11.2	10.7	4.7	7.73	28.506	. .	28.645
	34	Anon. 20h. 54m. 52s.	. .	3	III–VII.	331 50 9.0	5.7	4.9	11.5	9.0	4.0	7.35	27.337	. .	27.476
	35	Lalande 41229 . .	. .	2	IV, VI.	243 50 8.9	7.0	9.9	19.0	12.5	11.1	11.40	23.248	. .	23.387
	36	Lalande 41236 . .	. .	3	1, 5.	" " "	"	"	"	"	"	"	33.457	. .	33.596
	37	Anon. 21h. 22m. 23s.	8.0	3	I, III, V.	342 40 9.7	6.0	6.1	12.8	9.8	3.0	7.90	28.899	. .	29.038
	38	Anon. 21h. 22m. 33s.	9.0	3	VI, VII, VIII.	" " "	"	"	"	"	"	"	39.693	. .	39.832
28	39	63. Sagittarii	. .	3	IV–VI.	332 55 9.9	7.0	5.0	11.2	12.0	7.0	8.68	35.557	+ 0.137	35.694
	40	Nadir	. .	5	. .	100 0 9.2	5.6	3.6	12.4	13.0	11.0	9.03	30.031	. .	. .
	41	48 Cygni	. .	3	IV–VI.	287 50 9.8	4.0	2.5	10.1	13.0	9.0	8.07	37.288	. .	37.425
	42	B. A. C. 7132 . .	. .	4	II, III, VII, VIII.	" " "	"	"	"	"	"	"	31.596	. .	31.733
	43	Lalande 40235 . .	8.0	3	III–VII.	336 55 10.0	5.8	4.9	8.4	10.2	6.1	7.57	36.447	. .	36.584
	44	δ Microscopii . . .	. .	3	III–VII.	349 30 9.8	7.0	7.0	13.2	11.1	5.9	9.00	30.568	. .	30.705
	45	O. Arg. S. 21219 .	. .	3	III–VII.	342 10 9.0	4.6	5.0	10.2	11.0	5.4	7.53	30.525	. .	30.662
	46	ι Capricorni . . .	. .	3	III–VII.	336 15 9.1	5.0	4.9	8.8	10.0	6.0	7.30	28.833	. .	28.970
	47	2 Pegasi	. .	3	III–VII.	295 50 8.8	3.8	3.0	8.2	12.8	8.0	7.43	31.531	. .	31.668
	48	5 Pegasi	. .	3	III–VII.	300 10 8.3	3.4	2.0	8.2	11.7	8.3	6.98	31.368	. .	31.505
	49	Weisse XXI, 896 .	. .	3	III–VII.	309 35 8.6	5.0	3.0	6.8	12.0	7.4	7.13	30.830	. .	30.967
	50	B. A. C. 7616 .	. .	3	III–VII.	323 30 9.0	3.8	4.0	8.0	10.3	6.1	6.87	31.836	. .	31.973
	51	O. Arg. S. 21796 .	. .	3	III–VII.	342 45 8.8	4.0	4.1	9.0	9.1	4.0	6.50	25.968	. .	26.105
	52	ι Pegasi	. .	3	III–VII.	294 10 8.1	2.3	3.0	8.9	11.7	8.0	7.00	28.376	. .	28.513
	53	B. A. C. 7742 . .	. .	3	IV–VI.	303 30 8.1	3.1	2.8	9.0	11.1	7.3	6.90	31.305	. .	31.442
	54	Weisse (2) XXII, 292	6.5	3	III–VII.	281 50 8.0	3.4	3.5	9.0	11.1	8.9	7.32	36.304	. .	36.441
	55	Weisse (2) XXII, 291	8.5	2	IV, VI.	" " "	"	"	"	"	"	"	35.811	. .	35.948
	56	O. Arg. S. 22165 .	. .	3	III–VII.	346 45 7.2	4.0	4.9	8.4	8.0	4.8	6.22	32.034	. .	32.171
	57	39 Pegasi	. .	3	III–VII.	299 20 7.0	3.2	0.8	6.0	9.9	6.6	5.58	30.264	. .	30.401
	58	O. Arg. S. 22316 .	. .	3	III–VII.	347 55 7.0	3.1	4.0	9.8	6.9	4.2	5.83	33.753	. .	33.890
	59	τ^1 Aquarii	. .	3	III–VII.	333 40 7.1	4.0	2.1	7.9	9.0	3.3	5.57	35.506	. .	35.643
Oct. 2	60	24 Aquilæ	. .	3	III–VII.	318 45 7.0	4.3	1.4	7.2	8.9	5.7	5.92	27.153	+ 0.135	27.288
	61	α Vulpeculæ . . .	. .	3	III–VII.	294 30 7.3	3.5	2.4	10.1	11.2	7.0	6.92	31.975	. .	32.110
	62	Nadir	. .	5	. .	100 0 7.9	7.0	3.1	13.2	13.0	9.8	9.00	30.033	. .	. .
	63	B. A. C. 6857 . .	. .	3	IV–VI.	278 55 7.7	3.2	2.1	9.0	10.9	8.0	6.82	35.202	. .	35.337
	64	ξ^1 Capricorni . . .	. .	3	III–VII.	331 40 7.8	4.0	3.0	9.0	9.0	4.0	6.13	31.782	. .	31.917
	65	25 Vulpeculæ . . .	. .	3	III–VII.	294 50 7.3	3.0	2.6	10.0	12.0	7.0	6.98	27.482	. .	27.617
	66	η Delphini	. .	3	III–VII.	306 20 7.7	4.3	2.0	8.2	10.7	6.6	6.58	33.601	. .	33.736

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	− 43.2	S. 62 9 22.1	1 50.4	− 23 17 33.3	+ 2.8	D.	
2	. .	. .	. .	+ 2 20.8	58 37 26.5	1 35.8	− 19 45 23.1	+ 2.1	D.	
3	. .	. .	53.2	− 3 53.1	58 31 12.6	1 35.5	− 19 39 8.9	+ 2.1	D.	
4	. .	. .	. .	− 3 41.6	49 31 24.3	1 8.7	− 10 38 53.8	0.0	D.	
5	. .	. .	. .	+ 34.4	49 35 40.3	1 8.9	− 10 43 10.0	+ 0.1	D.	
6	. .	. .	. .	− 28.1	30 49 38.1	35.0	+ 8 3 26.1	− 4.5	D.	
7	. .	. .	52.0	− 2 1.4	66 8 4.9	2 12.1	− 27 16 37.8	+ 7.3	D.	
8	. .	. .	. .	− 3 42.9	67 51 24.6	2 23.5	− 29 0 8.9	+ 8.4	D.	
9	. .	. .	. .	− 29.0	56 9 37.7	1 27.6	− 17 17 26.1	+ 6.5	D.	
10	30.404	58.0	51.0	− 2 40.0	62 27 28.1	1 52.5	− 23 35 41.4	+ 9.6	D.	
11	. .	. .	. .	− 57.8	60 39 11.4	1 44.6	− 21 47 16.8	+ 10.5	D.	
12	. .	. .	50.3	− 30.0	71 14 38.4	2 52.0	− 32 23 51.2	+ 13.9	D.	
13	. .	. .	. .	− 30.3	4 59 39.1	5.2	+ 33 53 54.9	− 0.1	D.	
14	. .	. .	. .	− 1 6.4	4 59 3.0	5.2	+ 33 54 31.0	0.0	D.	
15	. .	. .	. .	+ 1 22.8	58 31 30.3	1 36.2	− 19 39 27.3	+ 11.9	D.	
16	30.406	57.0	50.0	+ 2 46.4	58 32 53.9	1 36.2	− 19 40 50.9	+ 12.0	D.	
17	30.045	64.3	59.0	+ 1 26.7	S. 57 21 34.6	1 29.2	− 18 29 24.6	− 4.8	D.	
18	. .	. .	. .	− 52.7	N. 33 15 40.8	37.6	+ 72 9 57.6	− 22.1	D.	
19	. .	. .	. .	− 2.7	N. 33 14 50.8	37.6	+ 72 9 7.6	− 21.8	D,	
20	. .	. .	. .	+ 1 25.8	S. 46 21 33.0	1 0.2	− 7 28 54.0	− 6.5	D.	
21	. .	. .	. .	− 56.2	58 19 11.2	1 32.8	− 19 27 4.8	− 1.8	D.	
22	. .	. .	. .	+ 3 33.5	58 23 40.9	1 33.1	− 19 31 34.8	− 1.6	D.	
23	30.056	63.5	57.3	− 1 17.6	72 38 50.6	3 1.9	− 33 48 13.3	+ 5.1	D.	
24	. .	. .	. .	− 56.9	54 14 10.1	1 19.7	− 15 21 50.6	+ 0.5	D.	
25	. .	. .	. .	+ 47.2	80 35 56.7	5 34.2	− 41 47 51.7	+ 10.1	D.	
26	30.060	62.5	56.2	− 2 14.9	80 32 54.6	5 32.9	− 41 44 48.3	+ 10.1	D.	
27	. .	. .	. .	+ 1 12.6	65 21 20.4	2 5.0	− 26 29 46.2	+ 6.8	D.	
28	. .	. .	. .	− 1 55.1	66 43 13.5	2 13.2	− 27 51 47.6	+ 8.0	D.	Whole rev. recorded "34, perhaps 33."
29	. .	. .	. .	− 1 47.2	66 43 21.4	2 13.3	− 27 51 55.5	+ 8.0	D.	
30	30.062	61.3	55.4	+ 34.6	55 10 40.7	1 23.0	− 16 18 24.5	+ 5.7	D.	
31	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
32	30.066	61.0	54.7	− 24.9	71 14 42.7	2 48.6	− 32 23 52.1	+ 14.1	D.	
33	. .	. .	. .	+ 42.4	46 50 50.1	1 1.7	− 7 58 12.6	+ 8.0	D.	
34	. .	. .	. .	+ 1 18.9	S. 51 51 26.2	1 13.6	− 12 59 0.6	+ 10.6	D.	
35	. .	. .	. .	+ 3 27.5	N. 36 6 21.1	42.2	+ 75 0 42.5	+ 2.1	D.	
36	. .	. .	53.5	− 1 52.6	N. 36 11 41.2	42.4	+ 75 6 2.8	+ 2.1	D.	
37	. .	. .	. .	+ 29.7	S. 62 40 37.6	1 51.8	− 23 48 50.2	+ 15.8	D.	
38	30.050	59.3	53.5	− 5 7.9	62 35 0.0	1 51.3	− 23 43 12.1	+ 15.8	D.	
39	30.016	68.3	63.6	− 2 58.2	52 52 10.4	1 14.8	− 13 59 46.0	+ 4.4	D.	
40	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
41	. .	. .	. .	− 3 52.3	7 46 15.7	7.7	+ 31 7 15.8	− 2.5	D.	
42	. .	. .	. .	− 53.9	7 49 14.1	7.8	+ 31 4 17.3	− 2.5	D.	
43	30.028	67.0	63.2	− 3 26.2	56 51 41.3	1 26.4	− 17 59 28.5	+ 11.2	D.	
44	. .	. .	. .	− 22.3	69 29 46.7	2 30.1	− 30 38 37.6	+ 16.4	D.	
45	. .	. .	. .	− 20.9	62 9 46.6	1 46.8	− 23 17 54.2	+ 14.9	D.	
46	30.031	67.0	65.1	+ 32.2	56 15 39.5	1 24.5	− 17 23 24.8	+ 14.1	D.	
47	. .	. .	. .	− 20.8	15 49 46.6	16.0	+ 23 3 36.6	+ 5.9	D.	
48	. .	. .	. .	− 47.0	20 9 19.9	20.8	+ 18 43 58.5	+ 7.5	D.	
49	. .	. .	. .	− 30.2	29 34 36.9	32.1	+ 9 18 30.2	+ 9.9	D.	
50	. .	. .	65.0	− 1 1.7	43 29 5.1	53.7	− 4 36 19.6	+ 13.7	D.	
51	. .	. .	. .	+ 2 1.8	62 47 8.3	1 49.8	− 23 55 18.9	+ 18.8	D.	
52	. .	. .	. .	+ 46.7	14 10 53.7	14.3	+ 24 42 31.2	+ 10.2	D.	
53	. .	. .	. .	− 45.1	23 29 21.8	24.7	+ 15 23 52.7	+ 11.9	D.	
54	. .	. .	. .	− 3 21.4	1 46 45.9	1.8	+ 37 6 51.5	+ 10.6	D.	
55	. .	. .	. .	− 3 6.1	1 47 1.2	1.8	+ 37 6 36.2	+ 10.6	D.	
56	. .	. .	. .	− 1 8.1	66 43 58.1	2 11.4	− 27 52 30.3	+ 21.4	D.	
57	. .	. .	. .	− 12.4	19 19 53.1	20.0	+ 19 33 26.1	+ 13.5	D.	
58	. .	. .	. .	− 2 2.0	67 53 3.8	2 19.1	− 29 1 43.7	+ 22.1	D.	
59	30.050	66.7	62.1	− 2 56.7	53 37 8.8	1 17.1	− 14 44 46.7	+ 19.7	D.	
60	30.190	64.5	60.8	+ 1 24.9	38 46 30.8	46.1	+ 0 6 22.3	− 5.5	D.	
61	. .	. .	. .	− 1 5.9	S. 14 29 1.0	14.8	+ 24 24 23.4	− 10.9	D.	
62	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
63	. .	. .	. .	− 2 47.0	N. 1 7 40.2	1.1	+ 40 1 20.5	− 9.8	D.	
64	30.196	64.0	59.8	− 1 0.1	S. 51 39 6.0	1 12.5	− 12 46 39.3	+ 5.4	D.	
65	. .	. .	. .	+ 1 14.8	14 51 21.7	15.2	+ 24 2 2.3	− 3.6	D.	
66	. .	. .	. .	− 1 56.9	S. 26 18 9.6	28.4	+ 12 35 1.2	+ 0.7	D.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES. A.	B.	C.	D.	E.	F.	Mean.	MICROMETER. Observed.	Nadir cor.	Corr'd
						° ′ ″	″	″	″	″	″	″	r.	r.	r.
1868. Oct. 2	1	17 Capricorni . . .	. .	3	III-VII.	340 50 7.7	5.9	4.1	13.0	9.8	3.9	7.40	27.796	. .	27.[illegible]
	2	17 Delphini	. .	3	III-VII.	305 40 7.0	2.2	1.0	12.0	8.7	5.2	6.02	30.789	. .	30.[illegible]
	3	2 Equulei	. .	3	III-VII.	312 15 7.3	3.0	2.9	8.0	10.0	4.7	5.98	34.052	. .	34.[illegible]
	4	γ Equulei	. .	3	II, III, IX.	309 20 7.0	4.2	2.7	7.1	10.8	5.8	6.27	36.540	. .	36.[illegible]
	5	6 Equulei	. .	3	IV-VI.	" " "	"	"	"	"	"	"	26.287	. .	26.[illegible]
	6	18 Aquarii	. .	3	III-VII.	332 20 7.1	4.0	3.3	9.0	9.1	3.7	6.03	32.554	. .	32.[illegible]
5	7	Lacaille 8077 . .	. .	3	IV-VI.	354 5 7.0	5.9	4.0	11.1	9.0	4.0	6.83	32.599	. .	32.[illegible]
	8	Lacaille 8090 . .	. .	3	IV-VI.	" " "	"	"	"	"	"	"	33.317	. .	33.[illegible]
	9	Lacaille 8121 . .	. .	3	IV-VI.	1 30 7.0	5.0	3.8	12.9	9.0	3.1	6.80	30.495	. .	30.[illegible]
	10	O. Arg. S. 19758 .	. .	3	IV-VI.	346 40 6.8	3.9	2.5	8.8	7.2	2.9	5.35	32.545	. .	32.[illegible]
	11	Lacaille 8197 . .	. .	3	IV-VI.	0 45 6.0	4.2	4.0	13.0	8.3	3.3	6.47	33.460	. .	33.[illegible]
	12	O. Arg. S. 19990 .	. .	3	III-VII.	346 30 5.1	2.0	2.1	7.0	5.8	1.1	3.85	33.384	. .	33.[illegible]
	13	Anon. 19h. 52m. 48s.	9.0	1	V.	342 0 5.7	2.8	2.8	8.6	7.0	1.0	4.65	23.518	. .	23.[illegible]
	14	B. A. C. 6864 . .	6.5	3	V, VI, VII.	" " "	"	"	"	"	"	"	34.737	. .	34.[illegible]
	15	Anon. 20h. 6m. 20s. .	8.5	3	III-VII.	302 35 5.2	2.1	1.5	7.3	4.0	3.7	3.97	34.382	. .	24.[illegible]
	16	Lalande 39496 . .	7.0	4	II, III, VII, VIII.	280 0 4.8	2.8	1.2	8.1	9.9	5.9	5.45	30 672	. .	30.[illegible]
	17	Anon. 20h. 23m. 37s.	8.5	3	IV-VI.	" " "	"	"	"	"	"	"	35.949	. .	36.[illegible]
	18	Weisse XX, 755 .	. .	3	III, VII.	330 25 4.5	1.9	1.0	7.4	6.0	1.0	3.63	36.343	. .	36.[illegible]
	19	O. Arg. S. 20812 .	9.0	1	V.	340 15 4.0	2.2	1.0	8.2	6.0	0.0	3.57	36.540	. .	36.[illegible]
	20	Lalande 40235 . .	. .	3	III-VII.	336 55 3.7	1.2	0.8	5.9	5.7	0.1	2.90	36.272	. .	36.41
	21	O. Arg. S. 21007 .	8.5	3	III-VII.	346 25 6.0	2.1	3.0	7.9	6.0	1.3	4.38	34.116	. .	34.[illegible]
	22	Anon. 20h. 57m. 9s. .	. .	3	III-VII.	351 45 5.9	5.0	4.0	11.4	8.9	2.0	6.20	34.467	. .	34.[illegible]
	23	2 Piscis Australis . .	. .	3	V, VI, VII.	" " "	"	"	"	"	"	"	34.464	. .	34.[illegible]
	24	Weisse 137 . . .	. .	3	III-VII.	299 10 6.1	4.0	1.0	6.7	9.1	3.6	5.08	28.250	. .	28.[illegible]
	25	Anon. 21h. 22m. 20s.	. .	1	VI.	342 40 6.2	3.2	3.0	8.3	8.0	1.8	5.08	28.683	. .	28.[illegible]
	26	Weisse 662 . . .	. .	3	IV-VI.	329 30 6.2	3.8	3.2	8.2	8.5	2.9	5.47	36.756	. .	36.[illegible]
	27	O. Arg. S. 21575 .	. .	3	V, VI, VII.	347 0 6.1	2.2	4.0	9.0	7.2	3.0	5.25	38.915	. .	38.[illegible]
	28	Weisse XXI, 988 .	. .	3	III-VII.	333 5 7.2	5.8	4.9	10.6	10.8	3.9	7.20	31.058	. .	31.[illegible]
	29	Nadir	. .	5	. .	100 0 7.0	6.0	2.3	12.6	11.9	8.8	8.10	30.003	. .	. .
6	30	η Capricorni . . .	5.0	3	III-VII.	339 15 6.7	8.8	5.9	12.9	9.7	5.0	8.17	31.401	+ 0.144	31.[illegible]
	31	φ Capricorni . . .	5.5	3	IV-VI.	340 5 3.2	7.8	3.1	10.9	6.8	2.1	5.65	32.677	. .	32.[illegible]
	32	Weisse (2) XXI, 327	7.5	3	III-VII.	300 35 4.9	7.8	2.8	10.2	9.8	6.6	7.02	28.324	. .	28.[illegible]
	33	5 Piscis Australis . .	. .	3	III-VII.	350 40 2.0	5.0	1.9	10.9	5.7	0.1	4.27	31.021	. .	31.[illegible]
	34	d Aquarii	. .	3	IV-VI.	317 15 0.9	1.6	57.1	3.9	3.2	0.2	1.15	32.842	. .	32.[illegible]
	35	θ Piscis Australis . .	. .	3	IV-VI.	350 20 4.9	8.9	4.8	13.6	8.7	3.4	7.38	27.765	. .	27.[illegible]
	36	18 Pegasi	5.0	3	III-VII.	312 50 3.9	5.2	1.7	9.3	8.4	3.8	5.38	34.811		34.[illegible]
	37	B. A. C. 7742 . .	6.0	2	VII, IX.	303 30 4.2	4.8	1.2	10.1	8.2	4.0	5.42	31.255	. .	31.[illegible]
	38	Lacaille 9127 . ..	. .	3	III-VII.	346 25 2.7	4.6	2.2	9.0	4.3	1.1	3.98	34.245	. .	34.[illegible]
	39	37 Pegasi	. .	3	III-VII.	315 5 5.2	6.2	2.3	9.9	8.9	5.4	6.32	26.435	. .	26.[illegible]
	40	Lacaille 9221 . .	. .	3	III-VII.	341 15 5.9	11.1	6.1	15.3	10.7	4.8	8.98	34.892	. .	35.[illegible]
	41	78 Aquarii	. .	3	III-VII.	326 45 4.0	7.9	3.0	10.9	9.3	4.9	6.67	26.951	. .	27.[illegible]
	42	h^1 Aquarii	6.0	1	V.	327 20 3.0	7.0	0.9	9.7	6.4	1.9	4.82	36.506	. .	36.[illegible]
	43	h^3 Aquarii	7.5	2	I, IX.	" " "	"	"	"	"	"	"	29.516	. .	29.[illegible]
	44	h^4 Aquarii	7.5	2	V-IX.	" " "	"	"	"	"	"	"	36.538	. .	36.[illegible]
	45	γ Sculptoris . . .	8.0	3	IV-VI.	352 5 9.9	13.4	8.7	18.4	12.7	7.1	11.70	29.314	. .	29.[illegible]
	46	69 Pegasi	. .	3	III-VII.	294 25 2.9	3.9	0.7	10.8	6.6	3.9	4.80	27.196	. .	27.[illegible]
	47	B. A. C. 8274 . .	. .	3	III-VII.	326 0 3.7	4.9	1.3	10.2	6.2	3.5	4.97	31.679	. .	31.[illegible]
	48	B. A. C. 8311 . .	. .	3	III-VII.	319 30 2.7	4.8	0.1	7.9	4.1	1.1	3.45	29.945	. .	30.[illegible]
	49	B. A. C. 8351 . .	. .	3	III-VII.	322 25 6.9	10.0	5.2	14.7	11.1	6.1	9.00	34.939	. .	35.[illegible]
	50	θ Sculptoris . . .	. .	3	III-VII.	354 45 3.5	8.8	4.7	13.9	6.8	2.5	6.70	35.341	. .	35.[illegible]
	51	Nadir	. .	5	. .	100 0 4.7	11.5	3.9	16.1	11.6	8.9	9.45	30.058	. .	. .
7	52	O. Arg. N. 24553 .	. .	3	IV-VI.	265 20 3.0	0.8	2.8	11.0	11.0	7.7	6.05	30.883	+ 0.360	31.[illegible]
	53	Weisse XXII, 951 .	. .	2	IV, IX.	324 55 6.0	2.3	59.8	5.0	8.9	3.8	4.30	30.770	. .	31.[illegible]
	54	Weisse XXII, 957 .	. .	1	V.	" " "	"	"	"	"	"	"	29.460	. .	29.[illegible]
	55	58 Pegasi	. .	3	III-VII.	309 50 6.1	2.0	0.3	4.0	9.3	5.0	4.45	36.827	. .	37.[illegible]
	56	Weisse XII, 222 .	. .	3	III-VII.	325 15 6.0	2.3	59.8	5.3	9.6	4.2	4.53	32.899	. .	33.[illegible]
	57	Lacaille 9482 . .	. .	3	III-VII.	346 55 5.1	1.9	2.0	7.8	6.8	3.2	4.47	36.454	. .	36.[illegible]
	58	Lacaille 9516 . .	. .	3	IV-VI.	350 55 8.1	4.8	3.1	10.8	10.0	4.0	6.80	35.863	. .	36.[illegible]
	59	Weisse XXIII, 845 .	. .	3	III, IV, V.	318 35 8.0	4.0	2.0	6.2	10.7	7.0	6.32	27.432	. .	27.[illegible]
	60	21 Piscium	. .	3	V, VI, VII.	" " "	"	"	"	"	"	"	35.607	. .	35.[illegible]
	61	Weisse XXIII, 1030	7.0	2	IV, V.	308 5 7.6	4.0	1.1	6.4	11.4	7.4	6.32	23.238	. .	23.[illegible]
	62	Weisse XXIII, 1040	9.0	2	VIII, IX.	" " "	"	"	"	"	"	"	34.004	. .	34.[illegible]
	63	Weisse XXIII, 1186	. .	3	V, VI, VII.	317 15 7.2	2.0	59.6	5.1	9.0	5.0	4.65	34.009	. .	34.[illegible]
	64	Weisse O, 88 . . .	. .	2	III, V.	316 40 7.7	1.9	0.0	5.0	10.1	5.8	5.08	30.331	. .	30.[illegible]
	65	Nadir	. .	5	. .	100 0 8.0	6.0	2.5	12.0	3.0	10.4	6.98	29.742	. .	30.1[illegible]

Number.	Barometer.	THERM'S.		Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.							
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	30.190	63.8	59.0	+ 1 4.6	S. 60 51 12.0	1 42.8	− 21 59 15.6	+ 12.2	D.	
2	. .	. .	. .	− 28.8	25 39 37.2	27.6	+ 13 13 34.4	+ 3.3	D.	
3	. .	. .	. .	− 2 11.0	32 12 54.9	36.3	+ 6 40 8.0	+ 5.7	D.	
4	. .	. .	. .	− 3 28.8	29 16 37.4	32.3	+ 9 36 29.5	+ 5.9	D.	
5	. .	. .	. .	+ 1 52.0	29 21 58.2	32.4	+ 9 31 8.6	+ 6.0	D.	
6	30.184	63.0	58.8	− 1 24.3	52 18 41.7	1 14.4	− 13 26 16.9	+ 13.4	D.	
7	. .	. .	. .	− 1 25.7	74 3 41.1	3 15.4	− 35 13 17.3	+ 6.9	D.	
8	29.762	64.5	60.3	− 1 48.1	74 3 18.7	3 15.4	− 35 12 54.9	+ 7.3	D.	
9	. .	. .	60.1	− 19.8	81 29 47.0	6 0.8	− 42 42 8.6	+ 10.7	D.	
10	. .	. .	. .	− 1 23.9	66 38 41.4	2 10.4	− 27 47 12.6	+ 6.3	D.	
11	29.764	64.0	59.6	− 1 52.6	80 43 13.8	5 33.0	− 41 55 7.6	+ 11.9	D.	
12	. .	. .	. .	− 1 50.3	66 28 13.5	2 9.4	− 27 36 43.7	+ 7.9	D.	
13	. .	. .	. .	+ 3 18.7	62 3 23.3	1 46.5	− 23 11 30.6	+ 7.6	D.	
14	. .	. .	. .	− 2 32.5	61 57 32.1	1 46.0	− 23 5 38.9	+ 7.7	D.	
15	. .	. .	. .	− 2 21.3	S. 22 32 42.6	23.6	+ 16 20 33.0	− 3.2	D.	
16	. .	. .	. .	− 24.7	N. 0 0 19.3	0.0	+ 38 53 58.5	− 5.6	D.	
17	. .	. .	. .	− 3 10.4	N. 0 3 5.0	0.1	+ 38 56 44.3	− 5.6	D.	
18	. .	. .	. .	− 3 22.8	S. 50 21 40.8	1 8.4	− 11 29 10.0	+ 8.1	D.	
19	. .	. .	58.9	− 3 28.9	60 11 34.6	1 38.8	− 21 19 34.2	+ 12.1	D.	
20	. .	. .	. .	− 3 20.7	56 51 42.2	1 26.8	− 17 59 29.8	+ 11.6	D.	
21	. .	. .	. .	− 2 13.2	66 22 51.1	2 8.7	− 27 31 20.6	+ 15.4	D.	
22	. .	. .	. .	− 2 24.3	71 42 41.9	2 50.2	− 32 51 52.9	+ 17.7	D.	
23	29.777	63.0	58.3	− 2 24.0	71 42 42.2	2 50.3	− 32 51 53.3	+ 17.8	D.	
24	. .	. .	. .	+ 50.7	19 10 55.7	19.8	+ 19 42 23.7	+ 3.8	D.	
25	. .	. .	. .	+ 37.1	62 40 42.1	1 49.6	− 23 48 52.5	+ 17.1	D.	
26	. .	. .	. .	− 3 35.7	49 26 29.7	1 6.3	− 10 33 56.8	+ 13.8	D.	
27	. .	. .	. .	− 4 43.3	66 55 21.9	2 12.5	− 28 3 55.2	+ 19.3	D.	
28	29.787	62.7	59.0	− 37.4	53 4 29.8	1 15.4	− 14 12 6.0	+ 16.0	D.	
29	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
30	30.116	61.2	55.8	− 48.5	59 14 19.7	1 36.8	− 20 22 17.3	+ 13.7	Y.	
31	. .	. .	. .	− 1 28.4	60 3 37.3	1 40.1	− 21 11 38.2	+ 15.1	Y.	
32	. .	. .	. .	+ 48.1	20 35 55.1	21.8	+ 18 17 22.3	+ 4.9	Y.	
33	30.120	61.1	54.8	− 36.7	70 39 27.6	2 43.5	− 31 48 31.9	+ 18.6	Y.	
34	. .	. .	. .	− 1 33.5	37 13 27.7	44.0	+ 1 39 27.5	+ 10.9	Y.	
35	. .	. .	. .	+ 1 5.4	70 21 12.7	2 41.2	− 31 30 14.7	+ 20.8	Y.	
36	. .	. .	. .	− 2 35.1	32 47 30.3	37.4	+ 6 5 31.5	+ 11.9	Y.	
37	30.128	59.9	52.8	− 43.3	23 29 22.1	25.3	+ 15 23 51.8	+ 11.2	Y.	
38	. .	. .	. .	− 2 17.6	66 22 46.4	2 12.2	− 27 31 19.4	+ 22.0	Y.	Hazy; very faint.
39	. .	. .	. .	+ 1 47.1	35 6 53.4	40.9	+ 3 46 4.9	+ 15.1	Y.	
40	30.134	59.0	52.3	− 2 37.8	61 12 31.2	1 45.6	− 22 20 37.6	+ 21.7	Y.	
41	. .	. .	. .	+ 1 30.9	46 46 37.6	1 2.0	− 7 54 0.4	+ 19.2	Y.	
42	. .	. .	. .	− 3 28.2	47 16 36.6	1 3.0	− 8 24 0.4	+ 19.9	Y.	
43	. .	. .	. .	+ 10.4	47 20 15.3	1 3.2	− 8 27 39.3	+ 19.9	Y.	
44	30.130	58.3	51.7	− 3 29.2	47 16 35.6	1 3.1	− 8 23 59.5	+ 20.0	Y.	
45	. .	. .	. .	+ 16.9	72 5 28.6	2 58.5	− 33 14 47.9	+ 25.3	Y.	
46	30.120	57.8	51.2	+ 1 23.6	14 26 28.4	15.0	+ 24 26 55.8	+ 17.2	Y.	
47	. .	. .	. .	− 57.1	45 59 7.9	1 0.4	− 7 6 29.1	+ 21.6	Y.	
48	. .	. .	. .	− 2.8	39 30 0.7	48.1	− 0 37 9.6	+ 21.0	Y.	
49	30.114	57.2	50.3	− 2 39.1	42 22 29.9	53.3	− 3 29 44.0	+ 21.6	Y.	
50	. .	. .	. .	− 1 51.9	S. 74 43 14.8	3 30.6	− 35 53 6.2	+ 25.7	Y.	
51	. .	. .	. .	− 6.3	. . . .	. .	. . . .	. .	Y.	
52	29.978	65.0	64.3	− 38.8	N. 14 40 32.7	14.8	+ 53 34 26.7	+ 6.1	D.	
53	. .	. .	. .	− 35.7	S. 44 54 28.6	56.3	− 6 1 45.7	+ 19.4	D.	
54	. .	. .	. .	+ 5.6	44 55 9.9	56.3	− 6 2 26.0	+ 19.5	D.	
55	. .	. .	. .	− 3 45.1	29 46 19.3	32.3	+ 9 6 47.6	+ 16.2	D.	Whole rev. recorded 37.
56	29.975	65.5	64.8	− 1 42.3	45 13 22.2	56.9	− 6 20 39.9	+ 21.0	D.	
57	. .	. .	. .	− 3 32.3	66 51 31.2	2 11.4	− 28 0 3.4	+ 22.0	D.	
58	. .	. .	. .	− 3 14.9	70 51 51.9	2 41.4	− 32 0 54.1	+ 29.4	D.	
59	. .	. .	. .	+ 1 9.3	38 36 15.6	45.1	+ 0 16 38.5	+ 20.6	D.	
60	. .	. .	. .	− 3 6.7	38 31 59.6	45.0	+ 0 20 54.6	+ 20.6	D.	
61	. .	. .	. .	+ 3 20.4	28 8 26.7	30.2	+ 10 44 42.3	+ 16.5	D.	
62	. .	. .	64.6	− 2 16.1	28 2 50.2	30.1	+ 10 50 18.9	+ 18.5	D.	
63	. .	. .	. .	− 2 16.7	37 12 48.0	42.9	+ 1 40 8.3	+ 20.9	D.	
64	29.972	65.8	64.5	− 21.6	S. 36 39 43.5	42.1	+ 2 13 13.6	+ 21.0	D.	Evening hazy.
65	. .	. .	. .	− 3.2	. . . .	. .	. . . .	. .	D.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES. A.			B.	C.	D.	E.	F.	Mean.	MICROMETER. Observed.	Nadir cor.	Corr'd
						°	′	″	″	″	″	″	″	″	r.	r.	r.
1868. Oct. 12	1	γ Sagittæ	. .	3	III-VII.	299	45	6.9	3.2	0.3	6.3	10.7	6.0	5.57	30.499	. .	[illegible]
	2	Nadir	. .	5	. .	100	0	5.2	4.2	0.0	10.0	10.9	7.3	6.27	29.943	+ 0.137	[illegible]
	3	Lalande 39496	. .	4	II, III, VII, VIII	280	0	5.2	2.0	0.0	7.0	10.7	6.2	5.18	30.664	. .	[illegible]
	4	Anon. 20h. 23m. 38s.	. .	3	IV-VI.	"	"	"	"	"	"	"	"	"	36.089	. .	[illegible]
	5	β Microscopii	. .	3	IV-VI.	352	30	5.0	3.0	1.0	8.8	6.8	1.0	4.27	28.728	. .	[illegible]
	6	20 Capricorni	. .	3	III-VII.	338	25	5.3	2.0	1.9	7.0	7.0	0.6	3.97	30.846	. .	[illegible]
	7	δ Microscopii	. .	3	IV-VI.	349	30	5.0	3.5	3.0	10.2	8.8	2.0	5.42	30.571	. .	[illegible]
	8	B. A. C. 7393	. .	3	I-5.	244	10	4.2	1.0	4.1	10.8	8.7	6.4	5.87	24.975	. .	[illegible]
	9	Weisse (2) XIV, 327	. .	3	IV-VI.	300	35	4.9	2.0	59.9	5.0	9.0	3.7	4.08	28.255	. .	[illegible]
	10	4 Pegasi	. .	3	III-VII.	313	45	5.2	1.0	59.0	5.3	10.2	2.9	3.93	35.810	. .	[illegible]
	11	42 Capricorni	. .	3	III-VII.	333	30	6.0	4.0	2.0	7.8	9.1	1.2	5.02	29.748	. .	[illegible]
	12	B. A. C. 7586	. .	3	IV-VI.	293	55	6.0	2.2	3.0	8.3	11.2	5.8	6.08	28.627	. .	[illegible]
	13	O. Arg. N. 22961	. .	2	V, VI.	249	20	6.0	2.0	5.7	13.2	11.0	8.0	7.65	28.787	. .	[illegible]
	14	Weisse (2) XXI, 1331	6.5	3	V-VII.	284	55	6.0	2.2	3.0	9.7	11.0	6.2	6.35	33.438	. .	[illegible]
	15	O. Arg. N. 23362	8.0	3	IV-VI.	266	0	6.0	2.8	4.8	12.3	11.7	8.2	7.93	27.728	. .	[illegible]
	16	Anon. 22h. 7m. 45s.	8.0	3	III-VII.	345	10	7.8	5.7	5.0	9.2	9.8	3.0	6.75	31.148	. .	[illegible]
	17	O. Arg. S. 22087	8.0	2	I, III.	341	10	8.0	5.9	4.1	12.7	10.0	3.0	7.28	31.257	. .	[illegible]
	18	Anon. 22h. 13m. 46s.	9.0	2	VII, IX.	"	"	"	"	"	"	"	"	"	29.805	. .	[illegible]
	19	O. Arg. S. 22165	8.0	3	IV-VI.	346	45	10.4	8.0	9.0	13.4	12.0	6.2	9.83	32.292	. .	[illegible]
	20	O. Arg. S. 22177	8.5	3	IV-VI.	"	"	"	"	"	"	"	"	"	37.750	. .	[illegible]
	21	Anon. 22h. 28m. 25s.	7.8	3	IV-VI.	349	50	9.0	8.0	6.2	13.8	11.0	4.0	8.67	26.578	. .	[illegible]
	22	O. Arg. S. 22378	9.0	2	III, V.	340	30	9.0	7.8	5.2	13.7	12.0	4.3	8.67	30.045	. .	[illegible]
	23	O. Arg. S. 22383	8.8	2	VII, IX.	"	"	"	"	"	"	"	"	"	38.760	. .	[illegible]
	24	Weisse XXII, 1026	. .	3	III-VII.	318	40	9.0	6.0	3.0	8.2	11.0	5.7	7.15	27.357	. .	[illegible]
	25	2 Piscium	. .	3	III-VII.	"	"	"	"	"	"	"	"	"	35.874	. .	[illegible]
	26	Anon. 22h. 55m. 20s.	. .	3	III-VII.	323	25	7.7	4.2	3.3	10.0	10.0	4.0	6.53	28.290	. .	[illegible]
16	27	Anon. 19h. 52m. 49s.	9.5	1	IX.	342	4	57.3	54.2	53.0	60.4	59.0	53.2	56.18	33.034	+ 0.083	[illegible]
	28	Anon. 20h. 6m. 19s.	. .	1	V.	302	35	9.1	6.4	4.3	12.7	12.0	7.2	8.95	34.613	. .	[illegible]
	29	Nadir	. .	5	. .	100	0	9.0	8.0	4.1	14.9	13.9	10.0	9.98	30.116	. .	. .
	30	Weisse XX, 767	. .	2	III, V.	332	0	9.1	6.9	5.4	12.4	12.0	5.1	8.48	34.980	. .	[illegible]
	31	Weisse XX, 779	. .	3	V-VII.	"	"	"	"	"	"	"	"	"	31.782	. .	[illegible]
	32	Anon. 20h. 29m. 23s.	. .	3	III-VII.	347	5	7.2	4.9	3.8	11.0	8.3	3.1	6.38	35.994	. .	[illegible]
	33	18 Delphini	. .	3	III-VII.	308	35	7.0	4.8	2.8	7.9	11.8	4.8	6.52	34.291	. .	[illegible]
	34	Lacaille 8681	. .	3	III-VII.	354	0	7.3	6.4	4.0	12.4	10.1	2.9	7.18	31.298	. .	[illegible]
	35	φ Capricorni	. .	2	III, V.	340	5	7.8	6.0	4.1	11.0	9.9	2.0	6.80	32.821	. .	[illegible]
23	36	Nadir	. .	5	. .	100	0	4.0	7.0	2.0	13.0	10.7	2.7	6.57	29.922	+ 0.166	. .
	37	Lalande 41614	8.0	2	II, IV.	280	45	4.2	5.0	2.0	12.0	10.0	2.7	5.98	37.379	. .	[illegible]
	38	Lalande 41627	7.0	2	V, VI.	"	"	"	"	"	"	"	"	"	31.112	. .	[illegible]
	39	Lalande 41624	7.0	1	IX.	"	"	"	"	"	"	"	"	"	22.743	. .	[illegible]
	40	Anon. 21h. 27m. 43s.	9.0	1	V.	327	35	4.0	4.1	0.8	9.2	7.2	6.6	5.32	33.491	. .	[illegible]
	41	79 Cygni	. .	4	II, III, VII, VIII	281	10	4.0	6.0	2.0	11.2	10.0	2.0	5.83	25.625	. .	[illegible]
	42	Anon. 21h. 38m. 10s.	. .	3	IV-VI.	"	"	"	"	"	"	"	"	"	28.117	. .	[illegible]
	43	Lacaille 8952	. .	3	IV-VI.	355	30	4.0	7.2	4.1	12.7	7.1	58.0	5.52	28.969	. .	[illegible]
	44	Weisse (2) XXII, 291	9.0	4	I, II, VIII, IX	281	50	3.8	3.0	2.3	10.1	7.9	0.3	4.58	35.835	. .	[illegible]
	45	Weisse (2) XX, 292	6.5	3	IV-VI.	"	"	"	"	"	"	"	"	"	36.327	. .	[illegible]
	46	B. A. C. 7829	. .	3	IV-VI.	256	15	2.9	4.6	5.0	16.0	9.0	4.0	6.92	31.722	. .	[illegible]
	47	Anon. 22h. 28m. 24s.	7.0	3	III-VII.	349	50	2.7	5.7	3.1	12.9	6.8	56.8	4.67	26.541	. .	[illegible]
	48	λ. Pegasi	. .	3	IV-VI.	296	0	5.8	6.1	3.6	12.8	11.8	1.9	7.00	28.859	. .	[illegible]
	49	78 Aquarii	. .	3	III-VII.	326	50	6.3	8.1	4.9	12.0	12.0	1.0	7.38	36.588	. .	[illegible]
	50	Anon. 22h. 53m. 45s.	9.0	3	III-VII.	326	40	7.0	8.1	5.2	12.2	11.7	1.8	7.67	32.239	. .	[illegible]
	51	Lacaille 9373	7.0	3	IV-VI.	349	35	6.8	9.0	8.0	17.7	10.8	0.6	8.82	27.459	. .	[illegible]
	52	Lacaille 9414	. .	3	IV-VI.	349	25	7.0	9.0	8.0	17.7	11.1	0.7	8.92	30.677	. .	[illegible]
	53	B. A. C. 8134	. .	3	III-VII.	324	15	7.2	7.0	5.2	13.3	12.0	2.7	7.90	28.229	. .	[illegible]
	54	O. Arg. S. 22911	. .	3	III-VII.	336	35	7.0	7.9	6.0	12.1	10.0	1.0	7.33	29.217	. .	[illegible]
	55	Groombridge 4142	. .	3	IV-VI.	255	50	6.7	8.2	9.0	23.2	13.0	8.3	11.40	32.891	. .	[illegible]
	56	Anon. 0h. 6m. 31s.	7.5	4	I, II, VIII, IX	336	50	7.0	8.1	6.0	14.8	10.0	1.0	7.82	35.826	. .	[illegible]
	57	Anon. 0h. 6m. 33s.	8.5	3	IV-VI.	"	"	"	"	"	"	"	"	"	37.877	. .	[illegible]
26	58	κ Capricorni	. .	3	III-VII.	338	20	7.7	4.0	1.9	9.3	9.6	3.0	5.92	30.407	+ 0.154	[illegible]
	59	O. Arg. S. 21775	. .	3	III-VII.	342	20	8.0	5.3	4.0	11.0	12.0	3.3	7.27	26.792	. .	[illegible]
	60	O. Arg. S. 21944	. .	3	III-VII.	343	5	8.0	4.7	3.2	8.3	11.4	2.8	6.40	32.837	. .	[illegible]
	61	Weisse IX, 155	8.5	3	III-VII.	318	35	7.0	4.0	1.7	6.0	10.8	4.2	5.62	33.088	. .	[illegible]
	62	Weisse XXII, 303	9.0	2	III, VII.	316	35	7.1	2.1	0.9	7.0	11.3	4.1	5.42	37.419	. .	[illegible]
	63	Anon. 22h. 21m. 36s.	9.2	1	V.	335	10	7.4	3.9	1.8	8.0	10.4	3.1	5.77	25.582	. .	[illegible]
	64	Wash. Z., LIV, 12	. .	1	V.	347	0	9.0	5.0	5.6	11.3	11.3	5.0	7.87	31.861	. .	[illegible]
	65	Wash. Z., LIV. 13	. .	2	VI, VIII.	"	"	"	"	"	"	"	"	"	38.746	. .	[illegible]
	66	O. Arg. S. 22288	. .	3	IV-VI.	"	"	"	"	"	"	"	"	"	32.265	. .	[illegible]

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	30.198	64.0	57.8	− 19.8	S. 19 44 45.8	20.7	+ 19 8 32.7	− 5.8	D.	
2	. .	. .	. .	− 2.5	. . . . .	. .	. . . . .	. .	D.	
3	. .	. .	. .	− 24.5	N. 0 0 19.3	0.0	+ 38 53 58.5	− 6.1	D.	
4	. .	. .	. .	− 3 14.8	N. 0 3 9.6	0.0	+ 38 56 48.8	− 6.1	D.	
5	30.205	62.0	54.9	+ 35.5	S. 72 30 39.7	3 2.2	− 33 40 2.7	+ 17.3	D.	
6	. .	. .	. .	− 30.9	58 24 33.1	1 34.2	− 19 32 28.1	+ 13.4	D.	
7	. .	. .	54.0	− 22.3	S. 69 29 43.1	2 34.3	− 30 38 38.2	+ 17.7	D.	
8	. .	. .	. .	+ 2 33.0	N. 35 47 21.1	41.9	+ 74 41 42.2	− 1.8	D.	
9	. .	. .	. .	+ 50.4	S. 20 35 54.4	21.9	+ 18 17 22.9	+ 4.6	D.	
10	. .	. .	. .	− 3 6.1	33 41 57.8	38.8	+ 5 11 2.6	+ 9.9	D.	
11	30.208	60.0	53.2	+ 3.5	53 30 8.5	1 18.6	− 14 37 47.9	+ 15.9	D.	
12	. .	. .	. .	+ 49.0	S. 13 55 55.0	14.4	+ 24 56 29.8	+ 6.2	D.	
13	. .	. .	. .	+ 33.9	N. 30 39 18.4	34.6	+ 69 33 32.2	+ 3.1	D.	
14	. .	. .	. .	− 1 51.8	S. 4 53 14.5	5.0	+ 34 0 19.7	+ 6.3	D.	
5	. .	. .	. .	+ 1 7.0	N. 13 58 45.1	14.5	+ 52 52 38.8	+ 5.2	D.	
6	. .	. .	52.1	− 40.5	S. 65 9 26.3	2 5.6	− 26 17 52.7	+ 21.9	D.	
7	. .	. .	. .	− 44.2	61 9 23.1	1 45.7	− 22 17 29.6	+ 21.1	D.	
8	. .	. .	. .	+ 1.7	61 10 8.9	1 45.8	− 22 18 15.5	+ 21.1	D.	
9	. .	. .	. .	− 1 16.1	66 43 53.7	2 15.2	− 27 52 29.7	+ 23.1	D.	
0	. .	. .	. .	− 4 6.9	66 41 2.9	2 14.9	− 27 49 38.6	+ 23.1	D.	
1	30.233	58.0	51.3	+ 1 42.8	69 51 51.4	2 38.2	− 31 0 50.4	+ 24.3	D.	
2	. .	. .	. .	− 5.9	60 30 2.8	1 43.0	− 21 38 6.6	+ 22.3	D.	
3	. .	. .	. .	− 4 38.9	60 25 29.8	1 43.0	− 21 33 33.6	+ 22.3	D.	
4	. .	. .	. .	+ 1 18.4	38 41 25.6	46.8	+ 0 11 26.8	+ 17.9	D.	
5	. .	. .	. .	− 3 8.2	38 36 59.0	46.7	+ 0 15 53.5	+ 18.0	D.	
6	30.234	57.7	51.3	+ 49.2	43 25 55.8	55.4	− 4 33 12.0	+ 19.2	D.	
7	30.008	60.0	54.5	− 1 37.9	62 3 18.3	1 48.4	− 23 11 27.5	+ 8.2	D.	
8	. .	. .	. .	− 2 27.0	22 32 41.9	24.0	+ 16 20 33.3	− 3.3	D.	
9	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
0	. .	. .	. .	− 2 38.6	51 57 29.8	1 13.9	− 13 5 4.5	+ 9.2	D.	
1	30.013	59.0	52.8	− 58.4	51 59 10.0	1 14.0	− 13 6 44.8	+ 9.2	D.	
2	. .	. .	. .	− 3 10.4	67 1 56.0	2 16.0	− 28 10 32.8	+ 15.3	D.	
3	. .	. .	. .	− 2 16.8	28 32 49.7	31.5	+ 10 20 18.0	+ 4.1	D.	
4	30.020	58.3	52.0	− 43.4	73 59 23.8	3 19.5	− 35 9 4.1	+ 19.6	D.	
5	. .	. .	. .	− 1 31.1	60 3 35.7	1 40.5	− 21 11 37.0	+ 15.9	D.	
	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
	. .	. .	. .	− 3 56.0	0 41 10.0	0.7	+ 38 12 28.5	+ 0.1	D.	
	. .	. .	. .	− 39.9	0 44 26.1	0.8	+ 38 9 12.3	+ 0.1	D.	
	. .	. .	. .	+ 3 43.4	0 48 49.4	0.9	+ 38 4 48.9	+ 0.1	D.	
	30.458	45.0	38.6	− 1 54.5	47 33 10.8	1 6.0	− 8 40 37.6	+ 13.9	D.	
	. .	. .	. .	+ 2 12.3	1 12 18.2	1.3	+ 37 41 19.7	+ 2.6	D.	Whole rev. not recorded.
	. .	. .	. .	+ 53.8	1 10 59.6	1.2	+ 37 42 38.4	+ 2.6	D.	
	30.456	45.0	38.3	+ 27.0	75 30 32.5	3 50.4	− 36 40 43.7	+ 24.8	D.	
	. .	. .	. .	− 3 6.9	1 46 57.6	1.9	+ 37 6 39.7	+ 6.7	D.	
	. .	. .	. .	− 3 23:2	S. 1 46 41.4	1.8	+ 37 6 56.0	+ 6.7	D.	
	. .	. .	. .	− 58.9	N. 23 45 52.0	26.7	+ 62 40 57.9	+ 5.3	D.	
	30.464	44.5	37.6	+ 1 42.9	S. 69 51 47.6	2 44.1	− 31 0 52.5	+ 25.7	D.	
	. .	. .	. .	+ 30.6	16 0 37.6	17.4	+ 22 52 44.2	+ 12.0	D.	
	. .	. .	. .	− 3 31.4	46 46 36.0	1 4.4	− 7 54 1.2	+ 20.0	D.	
	. .	. .	. .	− 1 15.3	46 38 52.4	1 4.3	− 7 46 17.5	+ 20.4	D.	
	30.466	44.2	36.5	+ 1 14.3	69 36 23.1	2 42.3	− 30 45 26.2	+ 27.0	D.	
	. .	. .	. .	− 26.4	69 24 42.5	2 40.6	− 30 33 43.9	+ 27.2	D.	
	. .	. .	. .	+ 50.2	44 15 58.1	59.3	− 5 23 18.2	+ 20.9	D.	
	. .	. .	35.5	+ 19.2	S. 56 35 26.6	1 32.2	− 17 43 19.6	+ 24.4	D.	
	30.468	43.7	35.1	− 1 35.5	N. 24 11 24.1	27.4	+ 63 5 30.7	+ 14.2	D.	
	. .	. .	. .	− 3 7.9	S. 56 46 59.9	1 33.0	− 17 54 53.7	+ 25.1	D.	
	. .	. .	34.9	− 4 11.8	56 45 56.0	1 32.9	− 17 53 49.7	+ 25.1	D.	
	30.196	54.5	50.0	− 17.7	58 19 48.2	1 35.0	− 19 27 44.0	+ 18.5	D.	
	. .	. .	. .	+ 1 35.4	62 21 42.7	1 51.6	− 23 29 55.1	+ 21.3	D.	
	. .	. .	. .	− 1 33.8	63 3 32.6	1 55.0	− 24 11 48.4	+ 22.4	D.	
	. .	. .	49.2	− 1 41.5	38 33 24.1	46.8	+ 0 19 28.3	+ 15.0	D.	
	. .	. .	. .	− 3 57.0	36 31 8.4	43.5	+ 2 21 47.3	+ 15.0	D.	
	. .	. .	. .	+ 2 13.5	55 12 19.2	1 24.4	− 16 20 4.4	+ 21.2	D.	
	. .	. .	. .	− 1 3.1	66 59 4.8	2 17.8	− 28 7 43.4	+ 25.2	D.	
	. .	. .	. .	− 4 38.7	66 55 29.1	2 17.3	− 28 4 7.2	+ 25.2	D.	
	30.200	53.5	47.8	− 1 15.8	S. 66 58 52.1	2 17.8	− 28 7 30.7	+ 25.4	D.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.							MICROMETER.		
						A.	B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Corr'd.
						° ′ ″	″	″	″	″	″	″	r.	r.	r.
1868. Oct. 26	1	Weisse XXI, 995 .	6.8	3	III–VII.	325 15 8.7	6.0	2.3	9.8	13.2	5.7	7.62	28.369	. .	28.524
	2	Anon. 22h. 52m. 44s.	. .	3	III–VII.	307 25 8.3	5.0	3.0	8.9	12.3	7.0	7.42	33.425	. .	33.580
	3	Weisse XXII, 1108 .	. .	3	IV–VI.	" " "	"	"	"	"	"	"	38.189	. .	38.344
	4	Anon. 23h. 3m. 23s. .	9.3	3	III–VII.	339 0 8.7	6.0	5.8	10.7	11.0	4.0	7.70	25.378	. .	25.533
	5	Lacaille 9432 . .	. .	3	IV–VI.	0 20 9.0	5.8	5.4	13.8	11.0	4.9	8.32	29.333	. .	29.488
	6	Anon. 23h. 21m. 5s.	. .	2	VI, VII.	264 45 10.0	9.8	9.9	19.9	19.0	14.0	13.77	22.784	. .	22.939
	7	Anon. 23h. 22m. 24s.	. .	1	V.	" " "	"	"	"	"	"	"	24.222	. .	24.377
	8	Anon. 23h. 29m. 58s.	. .	3	IV–VI.	356 20 7.3	6.3	5.3	14.3	11.0	4.0	8.03	27.582	. .	27.737
	9	O. Arg. S. 23054 .	. .	3	III–VII.	347 30 7.9	5.8	5.0	12.1	10.0	4.0	5.80	32.372	. .	32.527
	10	Lacaille 9619 . .	. .	3	III–VII.	352 0 8.0	7.2	5.8	14.0	12.7	4.1	8.63	29.421	. .	29.576
	11	Schjellerup 9964 .	. .	3	III–VII.	319 15 8.2	6.0	4.0	10.0	11.8	6.0	7.67	36.413	. .	36.568
	12	Weisse O, 1212 . .	. .	3	III, IV, V.	306 50 8.3	7.0	3.9	11.0	13.7	7.9	8.63	35.815	. .	35.970
	13	Weisse O, 1217 . .	. .	2	V, VII.	" " "	"	"	"	"	"	"	36.257	. .	36.412
	14	Anon. 0h. 18m. 9s. .	9.0	3	III–VII.	311 55 8.7	6.0	4.7	10.3	12.8	5.0	7.92	35.442	. .	35.597
	15	Nadir	. .	5	. .	100 0 9.0	9.2	5.0	16.2	15.2	9.3	10.65	30.065	. .	. .
28	16	Anon. 21h. 53m. 17s.	10.0	1	IX.	331 30 9.0	6.2	5.1	11.1	12.2	4.9	8.08	30.973	+ 0.131	31.104
	17	Weisse XXI, 1253 .	. .	1	VII.	" " "	"	"	"	"	"	"	30.844	. .	30.975
	18	Weisse XXI, 1255 .	. .	1	IX.	" " "	"	"	"	"	"	"	30.553	. .	30.684
	19	Lacaille 9047 . .	. .	3	IV–VI.	357 45 10.0	9.1	8.1	16.3	3.0	oblit.	10.31	27.645	. .	27.776
	20	Anon. 22h. 13m. 46s.	9.0	2	IV, VI.	341 10 7.3	5.3	4.2	12.3	10.1	2.7	6.98	29.649	. .	29.780
	21	Anon. 22h. 30m. 21s.	. .	3	IV–VI.	358 35 7.7	6.0	5.7	15.0	11.0	2.7	8 02	31.142	. .	31.273
	22	B. A. C. 7826 . .	. .	3	V–VII.	" " "	"	"	"	"	"	"	26.750	. .	26.881
	23	O. Arg. S. 22282 .	. .	3	III–VII.	341 20 8.0	4.4	4.0	10.0	10.0	2.1	6.42	29.148	. .	29.279
	24	O. Arg. S. 22374 .	9.0	3	IV–VI.	343 20 9.9	5.8	5.0	12.6	12.0	4.4	8.28	32.245	. .	32.376
	25	O. Arg. S. 22391 .	10.0	1	IX.	" " "	"	"	"	"	"	"	21.737	. .	21.868
	26	Weisse XXII, 944 .	. .	3	III–VII.	329 40 7.3	3.7	3.9	9.2	10.0	3.0	6.18	27.892	. .	28.023
	27	Weisse XXII, 1087 .	9.0	2	II, VIII.	323 55 7.4	3.0	2.0	8.2	10.0	3.7	5.72	27.051	. .	27.182
	28	Weisse XXII, 1088 .	8.0	3	IV–VI.	" " "	"	"	"	"	"	"	27.001	. .	27.132
	29	Lacaille 9369 . .	. .	3	III–VII.	358 25 7.0	7.0	6.0	14.7	11.0	2.0	7.95	29.782	. .	29.913
	30	Weisse XXIII, 112 .	. .	3	III–VII.	316 15 5.7	0.0	0.0	5.1	8.8	2.0	3.60	26.109	. .	26.240
	31	Lacaille 9701 . .	. .	3	III–VII.	343 45 5.4	4.0	1.9	10.0	8.9	1.7	5.32	31.457	. .	31.588
	32	Lacaille 9735 . .	. .	3	IV–VI.	353 5 4.3	3.0	2.1	10.8	8.0	1.1	4.88	27.818	. .	27.949
	33	Harvard Zone, 97, 22	. .	2	IV, VI.	318 45 4.0	0.7	59.7	6.2	6.2	1.1	2.98	28.540	. .	28.671
	34	Anon. 0h. 7m. 22s. .	. .	2	VII, IX.	" " "	"	"	"	"	"	"	31.095	. .	31.226
	35	O. Arg. N. 362 . .	7.0	2	IV, VI.	269 40 6.8	3.4	4.0	13.2	12.2	6.5	7.68	33.643	. .	33.774
	36	O. Arg. N. 362, (2d *)	9.0	2	V, VIII.	" " "	"	"	"	"	"	"	33.957	. .	34.088
	37	Weisse O, 466 . .	. .	3	III–VII.	315 15 7.0	4.9	3.0	9.8	12.3	5.0	7.00	33.774	. .	33.905
	38	Anon. 0h. 33m. 24s. .	. .	1	VI.	337 15 6.0	4.0	3.9	10.0	8.9	1.8	5.77	29.883	. .	30.014
	39	Anon. 0h. 33m. 36s. .	. .	1	IX.	" " "	"	"	"	"	"	"	37.803	. .	37.934
	40	Lacaille 218 . . .	6.7	3	III–VII.	341 20 4.9	3.8	3.0	10.2	8.7	59.9	5.08	33.410	. .	33.541
	41	Nadir	. .	5	. .	100 0 5.0	5.2	1.3	13.0	10.1	5.0	6.60	29.960	. .	. .
29	42	Anon. 21h. 23m. 43s.	9.2	3	III–VII.	335 20 5.1	6.7	3.3	11.0	8.1	2.1	6.05	33.928	+ 0.165	34.093
	43	Anon. 21h. 31m. 56s.	8.5	3	III–VII.	355 15 6.1	10.2	5.8	14.1	8.8	2.9	7.98	28.063	. .	28.228
	44	Weisse XXI, 916 .	8.0	3	III–VII.	319 40 3.9	6.5	1.2	9.4	7.8	2.5	5.22	27.258	. .	27.423
	45	Anon. 21h. 46m. 25s.	10.0	2	III, VII.	315 50 3.5	5.4	0.2	9.4	7.3	2.4	4.70	31.170	. .	31.335
	46	Anon. 21h. 53m. 19s.	10.0	1	V.	331 30 6.9	10.2	6.2	14.8	12.1	4.7	9.15	31.045	. .	31.210
	47	Weisse XXI, 1253 .	8.0	2	III–VII.	" " "	"	"	"	"	"	"	30.868	. .	31.033
	48	Weisse XXI, 1255 .	8.0	1	V.	" " "	"	"	"	"	"	"	30.561	. .	30.726
	49	Anon. 22h. 5m. 11s. .	9.0	3	III–VII.	331 10 5.1	7.9	3.7	12.4	9.2	2.7	6.83	35.840	. .	36.005
	50	Weisse XXII, 167 .	9.0	2	II, IX.	" " "	"	"	"	"	"	"	27.319	. .	27.484
	51	Weisse XXII, 175 .	8.0	3	IV–VI.	" " "	"	"	"	"	"	"	29.242	. .	29.407
	52	Weisse XXII, 331 .	8.3	3	III–VII.	330 45 8.4	13.1	7.6	18.0	14.2	8.1	11.57	33.353	. .	33.518
	53	Weisse XXII, 518 .	8.5	3	III–VII.	312 10 4.7	7.9	3.0	12.1	10.1	3.1	6.82	31.792	. .	31.957
	54	Anon. 22h. 38m. 58s.	9.5	1	V.	340 25 5.4	11.5	6.9	17.3	11.8	4.2	9.52	32.352	. .	32.517
	55	I Piscium	6.0	3	IV–VI.	318 30 4.8	9.2	3.4	12.1	10.2	4.8	7.42	28.531	. .	28.696
	56	O. Arg. S. 22554 .	8.5	3	III–VII.	336 30 2.5	5.7	2.9	10.1	7.1	0.4	4.78	35.345	. .	35.510
	57	Lacaille 9385 . .	7.0	3	III–VII.	359 35 3.9	9.3	4.8	16.3	8.7	1.9	7.48	33.547	. .	33.712
	58	Anon. 23h. 8m. 50s. .	8.3	3	III–VII.	358 50 3.1	7.2	4.1	15.9	7.2	59.4	6.15	34.167	. .	34.332
	59	O. Arg. S. 22779 .	8.5	3	IV–VI.	344 30 6.0	10.1	5.9	16.2	10.7	4.0	8.82	35.605	. .	35.770
	60	II Piscium	6.0	3	III–VII.	321 25 2.9	7.8	3.9	13.8	8.8	3.0	6.70	32.849	. .	33.014
	61	Lacaille 9528 . .	7.0	3	III–VII.	350 15 4.5	9.2	5.9	16.8	8.1	2.6	7.85	33.451	. .	33.616
	62	Lacaille 9567 . .	7.0	3	III–VII.	356 20 5.9	12.3	7.9	19.3	9.9	4.1	9.90	29.113	. .	29.278
	63	Lalande 46769 . .	7.2	2	II, VIII.	338 10 1.7	6.8	1.0	11.7	5.6	58.5	4.22	30.726	. .	30.891
	64	Lacaille 9702 . .	8.0	3	III–VII.	344 10 1.8	6.0	1.7	11.3	5.4	59.2	4.23	28.363	. .	28.528
	65	O. Arg. S. 8 . .	8.3	2	IV, VI.	338 50 1.7	4.6	1.2	11.7	3.5	58.2	3.48	31.290	. .	31.455
	66	O. Arg. S. 9 . .	8.0	1	V.	" " "	"	"	"	"	"	"	31.724	. .	31.889

Number.	Barometer.	THERM'S.		Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.							
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	+ 46.2	S. 45 15 53.8	59.4	− 6 23 14.0	+ 19.9	D	
2	. .	. .	. .	− 1 52.0	27 23 15.4	30.6	+ 11 29 53.2	+ 15.7	D.	
3	. .	. .	. .	− 4 21.1	27 20 46.3	30.6	+ 11 32 22.3	+ 15.5	D.	
4	. .	. .	46.8	+ 2 19.8	59 2 27.5	1 38.2	− 20 10 26.5	+ 24.6	D.	
5	30.218	52.0	46.4	+ 16.0	S. 80 20 24.3	5 34.6	− 41 32 19.7	+ 30.8	D.	
6	. .	. .	. .	+ 3 41.6	N. 15 11 4.6	16.1	+ 54 4 59.9	+ 11.6	D.	
7	. .	. .	. .	+ 2 56.0	N. 15 11 50.2	16.1	+ 54 5 45.5	+ 11.7	D.	
8	30.218	51.7	45.5	+ 1 10.8	S. 76 21 18.8	3 59.4	− 37 31 39.0	+ 30.1	D.	
9	. .	. .	. .	− 1 19.3	67 28 46.5	2 22.0	− 28 37 29.3	+ 27.9	D.	
10	. .	. .	. .	+ 13.1	72 0 21.7	3 0.6	− 33 9 43.1	+ 29.0	D.	
11	. .	. .	. .	− 3 25.6	39 11 42.1	48.3	− 0 18 51.2	+ 21.6	D.	
12	. .	. .	. .	− 3 6.7	26 47 1.9	29.9	+ 12 6 7.4	+ 19.4	D.	
13	. .	. .	. .	− 3 20.5	26 46 48.1	30.0	+ 12 6 21.1	+ 19.4	D.	
14	30.228	50.7	44.0	− 2 55.1	31 52 12.8	36.9	+ 7 0 49.5	+ 20.9	D.	
15	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
16	. .	. .	. .	− 34.2	51 29 33.9	1 13.2	− 12 37 7.9	+ 18.0	D.	
17	. .	. .	. .	− 30.3	51 29 37.7	1 13.3	− 12 37 11.8	+ 18.1	D.	
18	. .	. .	. .	− 20.8	51 29 47.3	1 13.3	− 12 37 21.4	+ 18.1	D.	
19	30.172	55.5	51.3	+ 1 9.6	77 46 19.9	4 23.3	− 38 57 4.0	+ 27.5	D.	
20	. .	. .	. .	+ 6.8	61 10 13.8	1 45.9	− 22 18 20.5	+ 22.8	D.	—0.″56 added to mean of A, B, C, D.
21	. .	. .	. .	− 39.9	78 34 28.1	4 42.1	− 39 45 31.0	+ 28.7	D.	
22	. .	. .	. .	+ 1 37.4	78 36 45.5	4 43.0	− 39 47 49.3	+ 28.8	D.	
23	30.176	55.0	50.0	+ 22.5	61 20 29.0	1 46.8	− 22 28 36.6	+ 23.9	D.	
24	. .	. .	. .	− 1 14.4	63 18 53.9	1 56.0	− 24 27 10.7	+ 24.9	D.	
25	. .	. .	. .	+ 4 14.2	63 24 22.4	1 56.4	− 24 32 39.6	+ 25.0	D.	
26	. .	. .	. .	+ 1 1.8	49 41 7.9	1 9.0	− 10 48 37.7	+ 21.4	D.	
27	. .	. .	. .	+ 1 32.3	43 56 38.0	56.5	− 5 3 55.3	+ 20.0	D.	
28	. .	. .	. .	+ 1 32.8	43 56 39.5	56.5	− 5 3 56.8	+ 20.0	D.	
29	30.190	54.5	49.3	+ 6.8	78 25 14.7	4 39.1	− 39 36 14.6	+ 30.4	D.	
30	. .	. .	. .	+ 1 57.6	36 17 1.2	43.1	+ 2 35 54.9	+ 18.8	D.	
31	. .	. .	. .	− 49.7	63 44 15.6	1 58.7	− 24 52 35.1	+ 27.4	D.	
32	. .	. .	. .	+ 1 4.1	73 6 8.9	3 11.4	− 34 15 41.1	+ 29.7	D.	
33	. .	. .	. .	+ 41.6	38 45 44.5	47.3	+ 0 7 7.4	+ 22.0	D.	
34	30.211	53.3	47.7	− 38.1	S. 38 44 24.8	47.3	+ 0 8 27.1	+ 22.0	D.	
35	. .	. .	. .	− 1 58.0	N. 10 21 50.4	10.7	+ 49 15 40.3	+ 16.6	D.	
36	. .	. .	. .	− 2 7.4	N. 10 21 59.8	10.8	+ 49 15 49.8	+ 16.6	D.	
37	. .	. .	. .	− 2 2.2	S. 35 13 4 8	41.7	+ 3 39 52.7	+ 21.8	D.	
38	. .	. .	. .	− 0.4	57 15 5.3	1 31.6	− 18 22 57.7	+ 25.9	D.	
39	30.220	52.8	47.0	− 4 8.5	57 10 57.2	1 31.4	− 18 18 49.4	+ 25.9	D.	
40	. .	. .	. .	− 1 50.9	61 18 14.1	1 47.5	− 22 26 22.4	+ 26.6	D.	
41	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
42	30.378	52.0	45.5	− 2 8.2	55 17 57.8	1 25.9	− 16 25 44.5	+ 16.7	Y.	
43	. .	. .	. .	+ 55.4	75 16 3.3	3 42.9	− 36 26 7.0	+ 24.3	Y.	
44	. .	. .	. .	+ 1 20.7	39 41 25.9	49.4	− 0 48 36.1	+ 12.8	Y.	
45	. .	. .	. .	− 41.8	35 49 22.9	43.1	+ 3 3 33.2	+ 12.3	Y.	
46	. .	. .	. .	− 38.8	51 29 30.3	1 14.9	− 12 37 6.0	+ 18.1	Y.	
47	. .	. .	. .	− 32.4	51 29 36.7	1 14.9	− 12 37 12.4	+ 18.2	Y.	
48	30.374	51.2	43.5	− 22.7	51 29 46.4	1 15.0	− 12 37 22.2	+ 18.2	Y.	
49	. .	. .	. .	− 3 8.0	51 6 58.8	1 14.0	− 12 14 33.6	+ 18.9	Y.	
50	. .	. .	. .	+ 1 18.5	51 11 25.3	1 14.2	− 12 19 0.3	+ 19.3	Y.	
51	. .	. .	. .	+ 18.5	51 10 25.3	1 14.2	− 12 18 0.3	+ 19.3	Y.	
52	. .	. .	42.6	− 1 50.1	50 43 21.4	1 13.1	− 11 50 55.3	+ 19.7	Y.	
53	30.378	49.8	42.2	− 1 1.2	32 9 5.6	37.7	+ 6 43 55.9	+ 14.7	Y.	
54	. .	. .	. .	− 1 18.7	60 23 50.8	1 45.2	− 21 31 56.8	+ 24.2	Y.	
55	. .	. .	. .	+ 40.8	38 30 48.2	47.7	+ 0 22 3.3	+ 18.2	Y.	
56	. .	. .	. .	− 2 52.5	56 27 12.2	1 30.3	− 17 35 3.3	+ 23.8	Y.	
57	30.382	48.1	41.2	− 1 56.1	79 33 11.3	5 16.1	− 40 44 48.2	+ 31.0	Y.	
58	. .	. .	. .	− 2 15.9	78 47 50.2	4 55.1	− 39 59 6.1	+ 30.1	Y.	
59	. .	. .	. .	− 3 0.6	64 27 8.2	2 5.1	− 25 35 34.1	+ 27.0	Y.	
60	. .	. .	. .	− 1 34.3	41 23 32.4	53.0	− 2 30 46.2	+ 21.0	Y.	
61	. .	. .	. .	− 1 53.4	70 13 14.4	2 45.9	− 31 22 21.1	+ 28.9	Y.	
2	. .	. .	. .	+ 22.6	76 20 32.5	4 3.2	− 37 30 56.5	+ 30.7	Y.	
3	30.390	46.6	40.2	− 28.6	58 9 35.6	1 36.7	− 19 17 33.1	+ 26.1	Y.	
4	. .	. .	. .	+ 45.9	64 10 50.1	2 3.9	− 25 19 14.8	+ 27.7	Y.	
5	. .	. .	. .	− 45.6	58 49 17.8	1 39.2	− 19 57 17.8	+ 26.4	Y.	
6	. .	. .	. .	− 59.1	S. 58 49 4.3	1 39.3	− 19 57 4.4	+ 26.5	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.									MICROMETER.		
						A.			B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Corr
						°	′	″	″	″	″	″	″	″	r.	r.	r.
1868. Oct. 29	1	O. Arg. S. 90 . .	8.5	3	IV–VI.	334	5	3.1	8.1	2.1	14.3	7.8	1.0	6.07	31.211	. .	31.
	2	Lacaille 66 . . .	6.5	2	V, VIII.	349	25	3.2	8.7	5.4	16.8	7.2	0.5	6.97	29.024	. .	29.
	3	49 Piscium	6.5	1	V.	303	35	3.1	8.0	3.2	13.9	9.3	2.1	6.60	31.190	. .	31.
	4	B. A. C. 122 . . .	6.5	3	IV–VI.	"	"	"	"	"	"	"	"	"	29.415	. .	29.
	5	Lacaille 157 . . .	6.5	2	V, IX.	344	45	7.1	12.4	8.0	17.9	12.3	5.2	10.48	37.210	. .	37.
	6	O. Arg. S. 358 . .	6.0	3	III–VII.	"	"	"	"	"	"	"	"	"	27.225	. .	27.
	7	Lacaille 216 . . .	8.0	3	III–VII.	356	30	5.1	12.2	7.1	19.8	9.6	3.7	9.58	33.325	. .	33.
	8	Lacaille 257 . . .	6.5	3	III–VII.	344	55	3.5	8.7	2.2	13.9	7.6	0.2	6.02	27.999	. .	28.
	9	B. A. C. 319 . . .	6.0	3	III–VII.	355	15	4.2	10.3	5.0	16.8	7.2	1.2	7.45	36.218	. .	36.
	10	Nadir	. .	5	. .	100	0	1.4	8.4	1.1	15.9	7.8	2.0	6.10	29.909	. .	. .
30	11	4 Pegasi	. .	3	III–VII.	313	45	1.7	58.7	52.7	9.3	2.0	2.8	1.20	35.667	+ 0.151	35.
	12	Anon. 21. 44m. 52s..	9.0	3	III–VII.	338	40	6.3	3.0	58.9	14.4	3.0	4.2	4.97	36.033	. .	36.
	13	Anon. 21h. 54m. 19s.	9.0	1	III.	340	15	6.3	5.0	59.0	16.7	4.0	5.3	6.05	33.580	. .	33.
	14	O. Arg. N. 23438 .	. .	3	IV–VI.	266	25	6.2	4.1	0.9	19.3	8.0	12.1	8.43	33.246	. .	33.
	15	Weisse XXII, 129 .	9.0	3	III–VII.	317	35	6.1	3.0	56.8	12.5	4.2	6.7	4.88	34.170	. .	34.
	16	Weisse XXII, 303 .	9.0	2	VII, IX.	316	30	5.7	0.7	55.0	11.7	3.3	5.2	3.60	27.772	. .	27.
	17	Lacaille 9151 . .	. .	3	IV–VI.	346	40	6.1	2.1	59.2	15.0	3.2	5.2	5.13	33.762	. .	33.
	18	Anon. 22h. 35m. 10s.	. .	3	IV–VI.	265	15	6.3	5.1	2.0	22.0	9.0	13.3	9.62	31.816	. .	31.
	19	Anon. 22h. 42m. 22s.	9.0	3	IV–VI.	261	5	5.8	3.1	59.6	18.3	6.8	10.1	7.28	35.020	. .	35.
	20	B. A. C. 8002 . .	. .	3	III–VII.	349	0	5.5	5.0	0.0	17.2	4.0	5.0	6.12	27.997	. .	28.
	21	58 Pegasi	. .	3	III–VII.	309	45	5.0	2.9	6.9	12.0	5.0	7.3	6.52	27.523	. .	27.
	22	Nadir	. .	5	. .	100	0	5.2	5.7	57.0	18.8	6.7	10.0	7.23	29.960	. .	. .
Nov. 4	23	Nadir	. .	5	. .	100	0	7.0	5.8	58.0	18.7	8.7	12.3	8.42	30.016	+ 0.132	. .
	24	Weisse(2) XXI, 1331	7.0	3	IV–VI.	284	55	7.0	1.3	58.0	15.2	6.2	10.0	6.28	33.469	. .	33.
	25	O. Arg. S. 21904 .	7.0	3	III–VII.	334	0	7.4	3.2	57.6	14.8	5.1	6.2	5.72	29.961	. .	30.
	26	Weisse XXII, 129 .	9.0	3	V, VI, VII.	317	35	8.0	3.8	57.3	12.7	6.2	8.0	6.00	34.199	. .	34.
	27	37 Pegasi	. .	3	III–VII.	315	10	8.0	3.0	57.5	13.2	8.0	9.2	6.48	36.055	. .	36.
	28	*o* Andromedæ . . .	. .	3	IV–VI.	277	15	8.1	4.0	59.1	17.8	9.3	13.2	8.58	27.923	. .	28.
5	29	Weisse XXII, 303 .	9.0	3	III–VII.	316	35	7.9	4.6	59.1	12.0	6.8	9.7	6.68	37.361	+ 0.267	37.
	30	60 Aquarii	. .	3	III–VII.	321	10	8.9	8.2	2.4	15.1	9.2	11.8	9.27	34.572	. .	34.
	31	Anon. 22h. 36m. 28s.	. .	3	III–VII.	340	30	10.2	9.4	2.0	19.2	8.9	11.0	10.12	29.869	. .	30.
	32	Lalande 45758 . .	. .	3	III–VII.	320	0	9.1	7.3	1.2	15.7	6.3	10.8	8.40	29.593	. .	29.
	33	O. Arg. S. 2290 . .	. .	3	III–VII.	336	35	11.0	9.1	3.9	17.2	8.0	10.6	9.97	29.086	. .	29.
	34	Lacaille 9606 . .	. .	3	III–VII.	341	15	7.9	6.8	0.0	17.1	6.2	7.8	7.63	34.721	. .	34.
	35	O. Arg. S. 52 . . .	. .	3	III–VII.	338	50	11.0	8.0	3.0	19.0	7.9	9.6	9.75	34.628	. .	34.
	36	Weisse O, 212 . .	. .	3	III–VII.	316	35	14.7	8.7	4.2	18.9	7.8	15.0	11.55	31.010	. .	31.
	37	B. A. C. 138, (2d *) .	. .	4	III, V, VIII, IX.	324	10	14.4	10.9	6.8	21.6	12.3	15.7	13.62	32.708	. .	32.
	38	Anon. 0h. 34m. 37s. .	8.0	3	IV, VI, IX.	326	0	17.6	14.3	7.5	24.0	16.2	19.6	16.53	30.018	. .	30.
	39	Weisse O, 800 . .	9.0	3	V, VIII, IX.	314	40	18.0	13.7	6.0	22.3	16.4	19.7	16.02	39.064	. .	39.
	40	Weisse O, 1002 . .	. .	3	III–VII.	317	20	16.3	13.1	7.2	21.4	14.3	17.3	14.93	37.469	. .	37.
	41	a^1 Ursæ Minoris . .	. .	4	I, 3, 4, 5.	230	20	14.6	10.6	8.1	27.0	13.2	18.2	15.28	33.246	. .	33.
	42	Nadir	. .	5	. .	100	0	12.1	12.2	5.2	25.2	12.8	17.8	14.22	30.187	. .	. .
6	43	Lacaille 9707 . .	. .	3	IV–VI.	348	55	12.8	13.7	7.3	28.8	10.0	11.0	13.93	24.688	+ 0.129	24.
	44	Lamont 21 . . .	8.0	3	III–VII.	319	40	7.1	4.8	59.3	19.0	3.7	7.1	6.83	32.857	. .	32.
	45	Lacaille 55 . . .	. .	3	III–VII.	342	35	6.0	5.8	59.7	20.2	3.0	5.0	6.62	28.671	. .	28.
	46	O. Arg. N. 362 . .	9.0	3	V, VII, IX.	269	40	6.0	6.0	59.3	24.8	5.9	9.9	8.65	34.099	. .	34.
	47	O. Arg. N. 362, (2d *)	7.0	2	VI, VIII.	"	"	"	"	"	"	"	"	"	33.767	. .	33.
	48	Weisse O, 544 . .	7.5	3	III–VII.	316	0	6.0	4.9	59.0	19.0	4.8	6.6	6.72	35.669	. .	35.
	49	Weisse O, 588 . .	7.5	3	III–VII.	"	"	"	"	"	"	"	"	"	34.809	. .	34.
	50	B. A. C. 269 . . .	6.5	3	III–VII.	305	55	5.5	5.0	57.0	19.2	4.1	6.7	6.25	32.106	. .	32.
	51	Weisse O, 969 . .	9.0	3	III–VII.	317	20	6.1	7.0	58.8	20.2	5.0	6.0	7.18	27.179	. .	27.
	52	Weisse O, 1002 . .	7.0	3	III–VII.	"	"	"	"	"	"	"	"	"	37.353	. .	37.
	53	Weisse I, 88 . . .	7.0	3	III–VII.	321	40	5.2	7.0	0.9	21.0	5.0	5.7	7.47	27.475	. .	27.
	54	Lacaille 407 . . .	7.0	3	IV–VI.	341	35	5.1	6.8	0.0	21.0	3.8	3.0	6.62	30.181	. .	30.
	55	Lacaille 438 . . .	9.0	2	IV, VI.	346	5	5.1	6.0	0.3	19.5	4.0	4.3	6.53	30.372	. .	30.
	56	Lacaille 438, (2d *) .	7.0	3	III–VII.	"	"	"	"	"	"	"	"	"	30.184	. .	30.
	57	Anon. 1h. 33m. 11s. .	9.0	1	I.	305	5	5.0	5.3	58.8	20.2	5.9	7.3	7.08	30.533	. .	30.
	58	Anon. 1h. 33m. 14s. .	9.5	1	III.	"	"	"	"	"	"	"	"	"	35.012	. .	35.
	59	Weisse I, 721 . .	9.0	1	VI.	304	55	5.0	5.1	58.1	20.3	5.1	6.1	6.62	27.187	. .	27.
	60	O. Arg. S. 1146 . .	. .	3	III–VII.	345	20	4.2	5.1	59.1	17.7	2.3	2.9	5.20	30.043	. .	30.
	61	O. Arg. S. 1256 . .	. .	3	III–VII.	346	15	4.3	5.0	0.0	17.2	2.0	2.7	5.20	32.049	. .	32.
	62	Weisse I, 1048 . .	7.0	3	IV–VI.	323	50	2.1	2.8	57.0	17.0	1.8	2.0	3.78	25.667	. .	25.
	63	B. A. C. 722 . . .	. .	3	III–VII.	"	"	"	"	"	"	"	"	"	30.523	. .	30.
	64	Nadir	. .	5	. .	100	0	4.8	9.5	59.5	25.1	7.0	10.0	9.32	30.048	. .	. .

Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
. .	. .	. .	− 43.1	S. 54 4 22.9	1 23.0	− 15 12 6.7	+ 25.4	Y.	
. .	. .	. .	+ 25.2	69 25 32.1	2 39.4	− 30 34 32.3	+ 28.9	Y.	
. .	. .	. .	− 42.4	23 34 24.2	26.3	+ 15 18 48.7	+ 19.9	Y.	
30.394	46.0	39.3	+ 12.7	23 35 19.3	26.3	+ 15 17 53.6	+ 19.9	Y.	
. .	. .	. .	− 3 50.9	64 41 19.5	2 6.7	− 25 49 47.0	+ 27.6	Y.	
. .	. .	. .	+ 1 21.0	64 46 31.4	2 7.5	− 25 54 59.7	+ 27.6	Y.	
. .	. .	. .	− 1 49.4	76 28 20.1	4 6.3	− 37 38 47.2	+ 29.8	Y.	
. .	. .	. .	+ 57.3	64 56 3.3	2 8.5	− 26 4 32.6	+ 27.2	Y.	
30.394	45.2	38.5	− 3 20.0	75 11 47.4	3 45.1	− 36 21 53.3	+ 28.7	Y.	
. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	Y.	
30.528	53.0	48.7	− 3 2.1	33 41 59.1	39.6	+ 5 11 0.5	+ 10.2	D.	
. .	. .	. .	− 3 13.6	58 36 51.3	1 37.2	− 19 44 49.3	+ 19.9	D.	
30.530	53.0	48.3	− 1 57.0	S. 60 13 9.0	1 43.6	− 21 21 13.4	+ 21.2	D.	
. .	. .	. .	− 1 46.2	N. 13 36 37.8	14.4	+ 52 30 31.4	+ 2.8	D.	
. .	. .	. .	− 2 15.2	S. 37 32 49.6	45.7	+ 1 20 3.9	+ 14.8	D.	
. .	. .	. .	+ 1 5.3	36 31 8.9	44.0	+ 2 21 46.3	+ 15.2	D.	
. .	. .	. .	− 2 2.5	S. 66 38 2.6	2 16.9	− 27 46 40.3	+ 25.4	D.	
. .	. .	. .	− 1 1.4	N. 14 45 51.8	15.8	+ 53 39 46.8	+ 6.3	D.	
. .	. .	. .	− 2 41.7	N. 18 57 34.5	20.4	+ 57 51 34.1	+ 6.8	D.	
. .	. .	48.2	+ 57.9	S. 69 1 4.0	2 34.0	− 30 9 58.8	+ 27.6	D.	
30.528	52.0	48.2	+ 1 12.8	29 46 19.3	34.0	+ 9 6 45.9	+ 16.9	D.	
. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
. .	. .	. .	− 1 52.6	4 53 13.6	5.0	+ 34 0 20.6	+ 4.5	D.	
29.888	52.3	51.1	− 3.0	54 0 2.7	1 19.6	− 15 7 43.1	+ 19.8	D.	
. .	. .	. .	− 2 15.5	37 32 50.5	44.5	+ 1 20 4.2	+ 14.9	D.	
. .	. .	50.4	− 3 13.6	S. 35 6 52.8	40.7	+ 3 46 5.7	+ 15.4	D.	
29.876	52.5	. .	+ 1 0.8	N. 2 43 51.7	2.8	+ 41 37 33.7	+ 9.1	D.	
30.050	52.0	48.9	− 3 58.7	S. 36 31 7.9	43.3	+ 2 21 48.0	+ 15.2	F.*	Whole rev. not recorded.
. .	. .	. .	− 2 31.4	41 7 37.8	50.9	− 2 14 49.5	+ 17.7	F.	*Mr. Edgar Frisby.
. .	. .	. .	− 4.4	60 30 5.7	1 43.4	− 21 37 9.9	+ 24.1	F.	
. .	. .	. .	+ 4.4	40 0 12.8	49.3	− 1 7 22.9	+ 20.5	F.	Whole rev. recorded 28.
. .	. .	. .	+ 20.1	56 35 30.0	1 28.9	− 17 43 19.7	+ 25.9	F.	Whole rev. not recorded.
. .	. .	. .	− 2 36.2	61 12 31.4	1 46.6	− 22 20 38.8	+ 27.6	F.	
. .	. .	. .	− 2 33.3	58 47 36.4	1 36.9	− 19 55 34.1	+ 27.3	F.	
. .	. .	. .	− 39.9	36 34 31.6	43.7	+ 2 18 23.9	+ 21.9	F.	
. .	. .	. .	− 1 33.1	44 8 40.5	57.2	− 5 15 58.5	+ 23.9	F.	
30.096	51.0	44.7	− 8.9	46 0 7.6	1 1.1	− 7 7 29.5	+ 24.4	F.	
. .	. .	. .	− 4 51.8	34 35 24.2	40.7	+ 4 17 34.3	+ 22.2	F.	
. .	. .	. .	− 4 2.1	S. 37 16 12.8	45.0	+ 1 36 41.4	+ 22.7	F.	
30.120	49.0	44.8	− 1 49.9	N. 49 41 34.7	1 9.6	+ 88 36 23.2	+ 19.2	F.	
. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	F.	
. .	. .	. .	+ 2 42.1	S. 68 57 56.0	2 36.4	− 30 6 53.2	+ 30.1	D.	
. .	. .	. .	− 1 33.4	39 38 33.4	50.2	− 0 45 44.4	+ 22.5	D.	
. .	. .	. .	+ 37.4	S. 62 35 44.0	1 56.2	− 23 44 1.0	+ 28.4	D.	
. .	. .	. .	− 2 11.4	N. 10 22 2.8	11.1	+ 49 15 53.1	+ 14.6	D.	
. .	. .	. .	− 2 1.1	N. 10 21 52.5	11.1	+ 49 15 42.8	+ 14.6	D.	
. .	. .	. .	− 3 1.4	S. 35 57 5.3	43.8	+ 2 55 50.1	+ 22.2	D.	
30.350	43.0	. .	− 2 34.5	35 57 32.2	43.8	+ 2 55 23.2	+ 22.2	D.	
. .	. .	. .	− 1 9.9	25 53 56.3	29.4	+ 12 59 13.5	+ 20.6	D.	
. .	. .	. .	+ 1 24.2	37 21 31.3	46.3	+ 1 31 21.6	+ 22.7	D.	
. .	. .	35.5	− 3 54.2	37 16 12.9	46.2	+ 1 36 40.1	+ 22.7	D.	
. .	. .	. .	+ 1 14.9	41 41 22.3	54.0	− 2 48 37.1	+ 23.5	D.	
30.346	43.0	35.3	− 9.7	61 34 56.9	1 51.9	− 22 43 9.6	+ 26.8	D.	
. .	. .	. .	− 15.7	66 4 50.8	2 16.2	− 27 13 27.8	+ 27.4	D.	
. .	. .	. .	− 9.9	66 4 56.6	2 16.5	− 27 13 33.9	+ 27.4	D.	
. .	. .	. .	− 20.6	25 4 46.4	28.4	+ 13 48 24.4	+ 20.9	D.	
. .	. .	. .	− 2 40.9	25 2 26.1	28.4	+ 13 50 44.7	+ 20.9	D.	
. .	. .	35.0	+ 1 24.0	24 56 30.6	28.3	+ 13 56 40.3	+ 20.9	D.	
. .	. .	. .	− 5.5	65 19 59.7	2 11.7	− 26 28 32.2	+ 26.1	D.	
. .	. .	. .	− 1 8.3	66 13 56.9	2 17.3	− 27 22 35.0	+ 25.6	D.	
30.344	42.5	34.7	+ 2 11.5	43 52 15.2	58.4	− 4 59 34.4	+ 22.5	D.	
. .	. .	. .	− 20.4	S. 43 49 43.3	58.3	− 4 57 2.4	+ 22.0	D.	
. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES. A.	B.	C.	D.	E.	F.	Mean.	MICROMETER. Observed.	Nadir cor.	Cor.
						° ′ ″	″	″	″	″	″	″	r.	r.	r.
1868. Nov. 7	1	π Cephei	. .	3	VI, VII, VIII.	244 15 5.0	3.6	58.8	20.8	3.1	10.6	6.98	33.157	+ 0.243	[illegible]
	2	12 Piscium	. .	3	III–VII.	320 40 10.2	7.5	2.0	18.8	8.5	11.0	9.67	33.536	. .	[illegible]
	3	Lacaille 9576 . .	. .	3	III–VII.	353 0 8.1	8.0	1.1	18.2	6.6	9.2	8.53	30.250	. .	[illegible]
	4	Weisse XXIII, 1183	7.0	3	III, V, IX.	320 10 11.0	9.2	1.8	18.6	7.6	10.0	9.70	36.422	. .	[illegible]
	5	Weisse O, 97 . .	. .	2	VII, IX.	312 45 14.8	10.0	4.0	21.3	10.1	14.6	12.47	39.065	. .	[illegible]
	6	Lacaille 55 . . .	. .	3	III, V, VIII.	342 35 21.3	19.5	12.8	30.9	19.1	20.9	20.75	29.033	. .	[illegible]
	7	B. A. C. 136, (2d *) .	9.2	3	III–VII.	354 35 24.5	24.2	18.9	36.0	22.0	24.6	25.03	34.806	. .	[illegible]
	8	45 Piscium	. .	3	III–VII.	298 35 20.0	18.8	10.7	28.0	19.0	22.0	19.75	34.062	. .	[illegible]
	9	Nadir	. .	5	. .	100 0 18.1	19.4	9.0	19.6	31.4	23.2	20.12	30.149	. .	. .
9	10	Anon. 23h. 46m. 10s.	. .	3	III–VII.	290 0 8.8	8.1	59.8	17.2	10.8	17.9	10.43	29.107	+ 0.134	[illegible]
	11	Anon. 23h. 58m. 58s.	. .	3	IV–VI.	261 20 11.1	10.2	3.8	22.0	12.8	21.1	13.50	33.325	. .	[illegible]
	12	Weisse O, 110 . .	. .	3	III–VII.	316 10 7.3	5.4	57.9	13.8	7.1	14.2	7.62	33.114	. .	[illegible]
	13	Weisse O, 255 . .	9.0	2	IV, VI.	314 20 9.1	7.8	59.8	15.9	10.2	15.9	9.78	24.805	. .	[illegible]
	14	Weisse O, 337 . .	8.0	2	VII, IX.	315 0 7.4	6.3	58.0	13.6	7.8	14.3	8.07	30.032	. .	[illegible]
	15	I Cassiopeæ . . .	5.0	1	V.	265 45 9.6	10.9	5.4	23.4	13.8	22.9	14.33	33.660	. .	[illegible]
	16	B. A. C. 203 . . .	. .	3	III–VII.	341 35 7.8	7.1	59.8	16.9	6.7	11.6	8.32	28.843	. .	[illegible]
	17	η Andromedæ . . .	. .	3	III–VII.	296 10 7.1	7.1	57.1	14.4	8.8	13.9	8.07	28.608	. .	[illegible]
	18	ψ^2 Piscium	5.0	3	III–VII.	298 50 10.4	9.9	0.2	16.6	10.5	17.4	10.83	28.622	. .	[illegible]
	19	Nadir	. .	5	. .	100 0 4.2	5.8	55.1	15.1	5.3	14.8	6.72	29.960	. .	. .
	20	B. A. C. 539 . . .	. .	3	III–VII.	325 15 4.1	2.2	52.9	8.9	3.4	8.7	3.37	27.682	. .	[illegible]
	21	Weisse I, 819 . .	8.0	3	V, VII, IX.	320 50 3.9	3.1	56.0	11.1	4.9	2.9	3.65	28.899	. .	[illegible]
	22	B. A. C. 607 . . .	6.0	3	III–VII.	298 30 5.2	3.4	55.8	10.7	5.2	10.7	5.17	33.639	. .	[illegible]
	23	θ Arietis	5.0	3	III–VII.	299 35 5.7	6.4	57.8	13.8	7.2	13.7	7.43	28.667	. .	[illegible]
	24	12 Trianguli . . .	5.0	3	III–VII.	289 50 5.8	4.7	56.8	13.6	6.7	13.1	6.78	32.842	. .	[illegible]
	25	75 Ceti	. .	3	III–VII.	320 30 5.1	3.9	56.9	11.2	3.8	10.5	5.23	30.365	. .	[illegible]
	26	μ Arietis	. .	3	III–VII.	299 25 5.8	5.9	56.4	12.8	6.6	12.9	6.73	27.607	. .	[illegible]
	27	Weisse II, 724 . .	. .	2	V, IX.	305 45 6.0	4.5	55.9	13.1	5.9	12.5	6.32	33.302	. .	[illegible]
11	28	Weisse (2) XXI, 325	8.3	3	III–VII.	299 35 5.8	11.2	0.2	21.1	6.2	10.9	9.23	28.675	+ 0.130	[illegible]
	29	Weisse (2) XXI, 522	7.3	3	III–VII.	333 45 6.9	10.8	2.1	22.1	3.7	7.8	8.90	31.873	. .	[illegible]
	30	Lacaille 8873 . .	6.5	3	III–VII.	353 55 6.9	12.3	4.2	25.4	5.6	9.2	10.60	24.933	. .	[illegible]
	31	Anon. 21h. 32m. 43s.	8.0	2	VII, IX.	" " "	"	"	"	"	"	"	26.185	. .	[illegible]
	32	Anon. 21h. 46m. 1s.	9.5	3	V, VII, IX.	326 0 2.8	4.9	57.7	15.5	1.1	4.4	4.40	31.509	. .	[illegible]
	33	Anon. 21h. 54m. 22s.	10.0	2	VII, IX.	340 15 3.8	8.7	59.9	20.9	1.7	5.0	6.67	33.422	. .	[illegible]
	34	O. Arg. S. 21923 .	8.3	2	III, VII.	338 0 6.5	11.4	3.5	23.9	3.2	7.9	9.40	30.906	. .	[illegible]
	35	Anon. 22h. 8m. 23s. .	8.5	3	I–IX.	351 20 8.4	12.9	5.1	26.8	5.8	9.4	11.40	27.166	. .	[illegible]
	36	O. Arg. S. 22123 .	6.5	3	III–VII.	341 10 4.9	8.9	0.2	23.0	1.3	5.2	7 25	34.769	. .	[illegible]
	37	O. Arg. S. 22132 .	8.3	3	III–VII.	" " "	"	"	"	"	"	"	34.460	. .	[illegible]
	38	60 Aquarii	5.5	3	III–VII.	321 10 4.9	9.3	1.2	22.1	3.3	8.1	8.15	34.609	. .	[illegible]
	39	B. A. C. 7891 . .	6.5	2	IV–VII.	347 50 5.0	10.4	3.4	23.6	2.1	8.0	8.75	26.858	. .	[illegible]
	40	O. Arg. S. 22316 .	7.0	2	V–IX.	" " "	"	"	"	"	"	"	24.258	. .	[illegible]
	41	Anon. 22h. 43m. 17s.	9.0	1	V.	325 10 4.7	7.3	57.9	19.9	0.9	6.1	6.13	33.465	. .	[illegible]
	42	Weisse XXII, 897 .	8.5	2	II–VIII.	" " "	"	"	"	"	"	"	29.276	. .	[illegible]
	43	O. Arg. S. 22517 .	9.0	3	V, VII, IX.	345 45 8.4	13.0	5.2	25.5	6.2	8.9	11.20	32.794	. .	[illegible]
	44	O. Arg. S. 22543 .	7.0	2	II, IX.	" " "	"	"	"	"	"	"	34.756	. .	[illegible]
	45	O. Arg. S. 22544 .	7.0	3	V, VI, IX.	" " "	"	"	"	"	"	"	36.612	. .	[illegible]
	46	Weisse XXIII, 61 .	9.0	3	III–VII.	310 50 5.2	10.3	1.2	22.5	3.2	7.6	8.33	34.820	. .	[illegible]
	47	Lacaille 9432 . .	6.0	3	V, VII, IX.	0 20 4.6	9.7	1.3	24.6	1.9	5.8	7.98	29.369	. .	[illegible]
	48	Lacaille 9461 . .	8.0	2	VII, IX.	356 45 1.9	7.2	59.8	22.2	57.8	3.5	5.40	30.232	. .	[illegible]
	49	Lacaille 9507 . .	6.7	3	III–VII.	1 15 7.1	14.6	5.4	29.5	5.8	9.2	11.93	27.885	. .	[illegible]
	50	Lacaille 9554 . .	7.5	3	III–VII.	357 25 5.2	11.5	3.1	26.9	2.1	. .	9.28	30.000	. .	[illegible]
	51	O. Arg. S. 23120 .	9.5	3	III–VII.	342 40 8.5	12.8	4.1	26.4	5.8	9.2	11.13	35.001	. .	[illegible]
	52	Anon. 23h. 58m. 9s. .	8.6	3	III–VII.	352 5 4.0	10.1	2.3	24.7	1.3	4.8	7.87	31.979	. .	[illegible]
	53	Harvard Zone, 97, 22	9.2	3	III–VII.	318 45 4.1	9.4	1.1	22.4	2.7	7.2	7.82	28.796	. .	[illegible]
	54	Anon. 0h. 7m. 18s. .	8.8	2	VII, IX.	" " "	"	"	"	"	"	"	31.157	. .	[illegible]
	55	Anon. 0h. 13m. 40s. .	8.3	3	V, VII, IX.	352 20 4.3	10.6	1.1	24.0	2.1	4.7	7.80	29.370	. .	[illegible]
	56	Weisse O, 377 . .	8.5	3	III–VII.	320 0 3.9	8.7	1.4	21.4	1.2	6.7	7.23	32.601	. .	[illegible]
	57	Weisse O, 506 . .	9.3	2	III, VII.	314 35 5.9	10.7	2.9	22.1	5.8	9.1	9.42	31.500	. .	[illegible]
	58	Anon. 0h. 41m. 1s. .	8.5	2	I, IX.	316 40 4.3	9.3	1.1	21.9	3.8	8.2	8.10	26.882	. .	[illegible]
	59	Weisse O, 694 . .	8.8	1	V.	" " "	"	"	"	"	"	"	37.321	. .	[illegible]
	60	Weisse O, 917 . .	9.0	3	III–VII.	314 40 2.8	7.0	59.7	20.0	1.8	6.5	6.30	26.757	. .	[illegible]
	61	Lacaille 310 . . .	6.5	3	III–VII.	343 35 3.2	9.2	0.7	21.9	2.3	5.1	7.07	32.750	. .	[illegible]
	62	Nadir	. .	5	. .	100 0 4.2	13.4	1.3	26.9	5.4	12.0	10.53	30.086	. .	. .
	63	B. A. C. 7408 . .	7.0	2	V, VII.	328 45 6.1	11.4	2.1	22.0	4.0	8.1	8.95	29.288	+ 0.230	[illegible]
	64	17 Aquarii	6.0	3	V, VII, IX.	" " "	"	"	"	"	"	"	29.947	. .	[illegible]

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	30.336	50.5	47.9	− 1 44.4	N. 35 46 37.5	42.7	+ 74 40 59.4	+ 6.9	F.	
2	. .	. .	. .	− 1 58.2	S. 40 38 11.4	50.8	− 1 45 23.0	+ 21.1	F.	
3	30.332	50.5	46.9	− 15.6	72 59 52.9	3 11.4	− 34 9 25.1	+ 31.2	F.	
4	. .	. .	. .	− 3 28.5	40 6 51.2	49.9	− 1 13 51.9	+ 22.4	F.	
5	. .	. .	. .	− 4 51.0	32 40 21.4	38.1	+ 6 12 39.7	+ 20.8	F.	
6	. .	. .	. .	+ 22.5	62 35 43.2	1 54.1	− 23 43 58.1	+ 28.6	F.	
7	. .	. .	. .	− 2 38.1	74 32 46.9	3 31.9	− 35 42 39.6	+ 31.5	F.	
8	30.314	48.0	44.9	− 2 14.7	18 33 5.0	20.0	+ 20 20 14.2	+ 19.8	F.	
9	. .	. .	. .	. .	. . . .	. .	. . . .	. .	F.	
10	30.088	60.8	58.2	+ 23.8	S. 10 0 34.2	10.7	+ 28 52 54.3	+ 14.8	Y.	Records of attached and external thermometers transposed.
11	. .	. .	. .	− 1 48.1	N. 18 41 34.6	19.4	+ 57 35 33.2	+ 11.9	Y.	
12	. .	. .	. .	− 1 41.6	S. 36 8 26.0	42.0	+ 2 44 31.2	+ 21.8	Y.	
13	. .	. .	57.5	+ 2 38.4	34 22 48.1	39.3	+ 4 30 11.8	+ 21.6	Y.	
14	30.084	. .	. .	− 4.8	S. 35 0 3.2	40.2	+ 3 52 55.8	+ 21.9	Y.	Record of attached and external thermometers transposed.
15	. .	. .	. .	− 1 58.7	N. 14 16 44.4	14.6	+ 53 10 38.2	+ 14.4	Y.	
16	. .	. .	. .	+ 31.9	S. 61 35 40.2	1 45.9	− 22 43 46.9	+ 28.5	Y.	
17	. .	. .	57.2	+ 39.5	16 10 47.5	16.7	+ 22 42 35.0	+ 19.0	Y.	
18	30.080	60.8	57.2	+ 39.1	18 50 49.9	19.6	+ 20 2 29.7	+ 19.7	Y.	Records of attached and external thermometers transposed.
19	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
20	30.080	60.7	56.5	+ 1 8.4	45 16 11.7	58.1	− 6 23 30.6	+ 23.8	Y.	
21	. .	. .	. .	+ 30.4	40 50 34.0	49.8	− 1 57 44.6	+ 22.9	Y.	
22	. .	. .	. .	− 1 58.0	18 28 7.1	19.2	+ 20 25 12.9	+ 20.2	Y.	
23	. .	. .	. .	+ 37.7	19 35 45.1	20.5	+ 19 17 33.6	+ 20.1	Y.	
24	. .	. .	. .	− 1 33.0	9 48 33.7	10.0	+ 29 4 55.5	+ 19.6	Y.	
25	30.066	60.3	55.4	− 15.6	40 29 49.6	49.3	− 1 36 59.7	+ 21.3	Y.	
26	. .	. .	. .	+ 1 10.9	19 26 17.6	20.4	+ 19 27 1.2	+ 19.7	Y.	
27	30.054	60.1	55.2	− 1 47.2	25 43 19.1	27.8	+ 13 9 52.3	+ 19.7	Y.	
28	30.076	48.9	42.0	+ 37.5	19 35 46.7	21.2	+ 19 17 31.3	+ 4.6	Y.	
29	. .	. .	. .	− 1 2.8	53 44 6.1	1 20.9	− 14 51 47.8	+ 17.0	Y.	
30	. .	. .	. .	+ 2 34.3	73 57 44.9	3 24.2	− 35 7 29.9	+ 24.9	Y.	
31	30.080	48.4	41.2	+ 1 54.9	73 57 5.5	3 24.0	− 35 6 50.3	+ 25.0	Y.	
32	. .	. .	. .	− 51.3	45 59 13.1	1 1.5	− 7 6 35.4	+ 16.4	Y.	
33	. .	. .	40.3	− 1 51.3	60 13 15.3	1 43.8	− 21 21 19.9	+ 22.2	Y.	Very faint.
34	. .	. .	. .	− 32.6	57 59 36.8	1 35.1	− 19 7 32.7	+ 22.0	Y.	
35	30.096	48.0	39.3	+ 1 23.7	71 21 35.1	2 55.4	− 32 30 51.3	+ 27.2	Y.	
36	. .	. .	. .	− 2 33.5	61 7 33.7	1 47.9	− 22 15 42.4	+ 24.3	Y.	
37	. .	. .	. .	− 2 23.8	61 7 43.4	1 48.0	− 22 15 52.2	+ 24.4	Y.	
38	. .	. .	. .	− 2 28.4	41 7 39.7	52.1	− 2 14 52.6	+ 18.2	Y.	
39	. .	. .	. .	+ 1 34.1	67 51 42.9	2 26.0	− 29 0 29.7	+ 27.7	Y.	
40	30.100	47.5	39.0	+ 2 55.4	67 53 4.1	2 26.1	− 29 1 51.0	+ 27.7	Y.	
41	. .	. .	. .	− 1 52.5	45 8 13.6	1 0.0	− 6 15 34.4	+ 20.7	Y.	
42	. .	. .	. .	+ 18.5	45 10 24.6	1 0.1	− 6 17 45.5	+ 20.7	Y.	
43	. .	. .	. .	− 1 31.7	65 43 39.5	2 11.9	− 26 52 12.2	+ 28.0	Y.	
44	. .	. .	. .	− 2 33.5	65 42 37.7	2 11.8	− 26 51 10.3	+ 28.2	Y.	
45	. .	. .	. .	− 3 31.2	65 41 40.0	2 11.7	− 26 50 12.5	+ 28.2	Y.	
46	. .	. .	. .	− 2 34.9	30 47 33.4	35.6	+ 8 5 30.2	+ 17.5	Y.	
47	30.118	47.0	39.1	+ 15.1	80 20 23.2	5 35.8	− 41 32 22.8	+ 33.4	Y.	
48	. .	. .	. .	− 11.9	76 44 53.5	4 9.0	− 37 55 23.3	+ 32.6	Y.	
49	. .	. .	. .	+ 1 1.8	81 16 13.7	6 12.7	− 42 28 47.2	+ 34.1	Y.	
50	30.122	46.6	39.1	− 4.3	77 25 4.7	4 22.2	− 38 35 48.0	+ 33.2	Y.	— 2.″40 added to mean of A, B, C, D.
51	. .	. .	. .	− 2 40.8	62 37 30.3	1 55.1	− 23 45 46.2	+ 29.1	Y.	
52	. .	. .	. .	− 1 6.2	72 4 1.6	3 2.9	− 33 13 25.3	+ 31.9	Y.	
53	. .	. .	. .	+ 33.6	38 45 41.4	48.0	+ 0 7 9.8	+ 22.7	Y.	
54	. .	. .	39.0	− 40.1	38 44 27.7	48.0	+ 0 8 23.5	+ 27.6	Y.	
55	30.132	46.5	39.0	+ 18.2	72 20 26.0	3 5.9	− 33 29 52.7	+ 32.0	Y.	
56	. .	. .	. .	− 1 25.5	39 58 41.7	50.2	− 1 5 52.7	+ 23.4	Y.	
57	. .	. .	. .	− 51.0	34 34 18.4	41.2	+ 4 18 39.6	+ 22.2	Y.	
58	. .	. .	. .	+ 1 33.6	36 41 41.7	44.6	+ 2 11 12.9	+ 22.8	Y.	
59	30.150	46.6	38.9	− 3 53.2	36 36 14.9	44.5	+ 2 16 39.8	+ 22.8	Y.	
60	. .	. .	. .	+ 1 37.5	34 41 43.8	41.4	+ 4 11 14.0	+ 22.5	Y.	
61	30.146	46.5	39.0	− 1 30.3	63 33 36.7	1 59.9	− 24 41 57.4	+ 28.9	Y.	
62	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
63	. .	. .	. .	+ 15.1	48 45 24.0	1 8.3	− 9 52 53.1	+ 14.4	Y.	
64	30.376	47.0	42.1	− 5.5	S. 48 45 3.4	1 8.3	− 9 52 32.5	+ 14.5	Y.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES. A.			B.	C.	D.	E.	F.	Mean.	MICROMETER. Observed.	Nadir cor.	Corr.
						°	′	″	″	″	″	″	″	″	r.	r.	r.
1868. Nov. 12	1	Anon. 21h. 28m. 47s.	8.6	2	I, IX.	355	20	3.6	9.7	0.4	22.4	0.7	4.1	6.82	33.324	. .	33.
	2	Lacaille 8854 . .	7.8	3	III–VII.	"	"	"	"	"	"	"	"	"	33.505	. .	33.7
	3	79 Cygni	5.3	3	IV–VI.	281	10	5.8	10.8	0.6	23.5	5.3	10.8	9.37	25.604	. .	25.
	4	Anon. 21h. 38m. 12s.	6.5	3	I, VII, IX.	"	"	"	"	"	"	"	"	"	28.141	. .	28.
	5	Anon. 21h. 47m. 20s.	10.0	2	VII, IX.	330	50	2.4	6.3	58.2	18.9	0.6	5.1	5.25	29.042	. .	29.2
	6	O. Arg. S. 21923 .	8.3	3	III, VIII	338	0	4.8	8.2	0.7	21.1	1.5	5.6	6.98	30.728	. .	30.
	7	O. Arg. S. 22022 .	8.5	3	IV–VI.	340	50	5.8	12.0	2.8	26.6	3.7	8.1	9.83	34.734	. .	34.
	8	Anon. 22h. 8m. 49s.	9.0	2	VII, IX.	"	"	"	"	"	"	"	"	"	32.681	. .	32.
	9	Anon. 22h. 18m. 22s.	9.5	3	III–VII.	315	45	6.1	10.3	1.1	24.8	4.8	11.2	9.72	31.304	. .	31.
	10	Anon. 22h. 27m. 47s.	9.5	3	III, VI, IX.	347	5	5.8	11.0	3.9	25.9	4.8	10.2	10.27	28.478	. .	28.7
	11	Lalcaille 9246 . .	7.5	3	III–VII.	352	15	1.8	8.9	59.0	24.0	0.5	3.1	6.22	34.855	. .	35.0
	12	Anon. 22h. 43m. 17s.	9.0	2	IV–VI.	325	10	6.0	12.2	59.8	23.7	5.5	9.0	9.37	34.118	. .	33.3
	13	Weisse XXII, 897 .	8.8	2	VIII, IX.	"	"	"	"	"	"	"	"	"	29.383	. .	29.
	14	Lacaille 9357 . .	7.0	3	III–VII.	347	25	3.8	7.9	59.7	23.0	0.2	5.1	6.62	34.483	. .	34.7
	15	Anon. 23h. 3m. 22s.	9.5	2	VI, IX.	339	5	4.8	10.4	2.8	24.0	3.2	8.0	8.87	35.100	. .	35.3
	16	Lacaille 9424 . .	6.5	3	V, VII, IX.	0	40	6.7	13.4	4.9	30.1	5.7	9.4	11.70	25.280	. .	25.5
	17	Radcliffe 6067 . .	8.2	3	V, VII, IX.	264	35	4.2	12.3	3.9	31.0	7.2	12.6	11.87	36.444	. .	36.
	18	B. A. C. 8214 . .	6.0	3	III–VII.	327	5	7.2	13.1	3.0	25.8	6.9	10.4	11.07	32.008	. .	32.2
	19	Lacaille 9576 . .	6.0	3	III–VII.	353	0	3.2	8.2	59.8	24.2	2.3	4.4	7.02	30.232	. .	30.4
	20	Lacaille 9619 . .	7.5	3	IV–VI.	352	0	7.1	13.8	3.8	27.5	6.4	8.1	11.12	29.427	. .	29.
	21	Lacaille 9670 . .	8.0	3	III–VII.	357	45	1.9	7.4	58.1	23.1	58.1	. .	5.59	26.801	. .	27.
	22	Lacaille 9714 . .	7.5	3	V, VII, IX.	352	0	5.2	11.1	0.2	24.9	2.5	5.3	8.20	25.161	. .	25.4
	23	Lacaille 5 . . .	7.3	3	IV–VI.	345	55	6.6	11.9	2.5	25.2	3.8	7.4	9.57	30.416	. .	30.
	24	Lacaille 9 . . .	6.0	2	VI, IX.	"	"	"	"	"	"	"	"	"	35.012	. .	35.2
	25	Lacaille 62 . . .	7.8	3	IV–VI.	357	0	7.6	13.3	3.9	29.0	5.2	. .	11.42	35.118	. .	35.3
	26	Lacaille 72 . . .	8.5	2	VII, IX.	"	"	"	"	"	"	"	. .	"	34.416	. .	34.6
	27	Lacaille 131 . . .	8.0	3	III–VII.	351	50	4.4	11.3	2.9	25.6	2.8	6.2	8.87	27.484	. .	27.7
	28	Lacaille 162 . . .	6.5	3	III–VII.	353	30	4.0	10.7	0.5	25.1	2.1	5.5	7.98	27.711	. .	27.9
	29	η Cassiopeæ . . .	5.0	3	IV–VI.	261	45	6.1	13.3	3.1	30.3	7.5	13.0	12.22	26.974	. .	27.1
	30	Anon. 0h. 48m. 8s. .	9.5	3	IV–VI.	321	10	4.3	12.8	2.0	26.2	5.2	8.5	9.82	32.297	. .	32.5
	31	O. Arg. S. 596 . .	7.5	3	III–VII.	347	25	6.6	13.6	4.6	27.7	4.2	10.0	11.12	27.314	. .	27.5
	32	Weisse I, 15 . . .	9.2	3	III–VII.	316	30	4.0	7.4	58.1	23.1	3.4	6.6	7.10	29.909	. .	30.1
	33	Weisse I, 227 . .	9.5	2	VII, IX.	321	30	2.9	6.8	58.1	21.8	0.2	4.9	5.78	34.136	. .	34.3
	34	Nadir	. .	5	. .	100	0	2.7	9.2	58.3	23.4	2.7	7.2	7.25	29.882	. .	. .
13	35	Weisse XXI, 1240 .	. .	2	VII, IX.	332	29	59.0	57.6	50.2	69.0	56.2	58.2	58.37	26.795	+ 0.392	27.1
	36	Anon. 23h. 6m. 12s. .	. .	4	III–IX.	349	34	58.5	63.0	52.5	71.2	55.3	57.8	59.72	25.375	. .	25.7
	37	12 Piscium	. .	3	V–IX.	320	40	1.0	59.9	52.4	10.9	0.0	0.8	0.83	33.192	. .	33.5
	38	O. Arg. S. 23126 .	. .	3	IV, V, IX.	342	34	59.3	58.1	51.2	70.4	56.4	58.7	59.02	31.524	. .	31.0
	39	Anon. 23h. 59m. 4s.	. .	2	V, VIII.	261	14	55.4	55.7	49.7	70.9	56.1	58.9	57.78	36.333	. .	36.
	40	B. A. C. 122 . .	. .	3	III–VII.	303	39	50.4	48.8	43.2	62.8	50.9	52.8	51.48	38.442	. .	38.
	41	Anon. 0h. 32m. 58s.	. .	2	VI, IX.	263	4	55.0	55.4	50.8	72.0	56.7	59.2	58.18	30.404	. .	30.7
	42	a¹ Ursæ Minoris . .	. .	3	V–5.	230	19	45.5	43.7	39.8	62.4	44.4	50.3	47.68	32.287	. .	32.0
	43	Anon. 1h. 26m. 3s. .	. .	3	III, V, VIII.	303	54	45.7	43.9	40.2	59.1	47.5	49.0	47.57	35.236	. .	35.0
	44	Lalande 3702 . .	. .	3	V–IX.	345	54	38.7	39.2	31.6	51.1	35.7	39.0	39.22	27.457	. .	27.
	45	Weisse II, 35 . .	9.0	3	III–VII.	314	44	40.3	40.3	33.8	53.7	40.8	43.8	42.12	34.756	. .	31.14
	46	i Persei	. .	2	V, VII.	263	39	34.0	34.9	30.0	47.0	35.5	40.4	36.97	30.230	. .	32.0
	47	Nadir	. .	5	. .	99	59	34.3	36.1	27.3	51.6	35.3	40.3	37.48	29.639	. .	.
18	48	Lacaille 9195 . .	. .	2	V, VII.	345	10	8.2	9.1	1.3	17.8	5.0	7.9	8.22	26.596	+ 0.314	26.
	49	B. A. C. 7951 . .	. .	2	VII, IX.	323	50	8.4	6.9	0.8	18.0	5.8	10.0	8.32	35.353	. .	35.
	50	Weisse XXII, 1017 .	. .	2	V, VII.	329	50	8.8	8.5	2.4	21.1	7.0	9.9	9.63	29.537	. .	20.
	51	Anon. 23h. 3m. 21s. .	9.5	3	IV–VI.	339	0	6.4	5.9	59.8	16.6	2.1	6.3	6.18	25.195	. .	25.5
	52	Lalande 45758 . .	. .	3	III–VII.	320	0	3.8	3.2	56.5	12.6	1.7	5.0	3.80	29.380	. .	29.60
	53	O. Arg. S. 22911 .	9.0	3	III–VII.	336	35	0.8	59.1	53.2	10.5	56.8	0.2	0.10	28.600	. .	28.
	54	108 Aquarii	. .	3	III–VII.	338	30	2.0	0.0	55.2	11.1	58.2	0.2	1.12	28.981	. .	29.2
	55	B. A. C. 8372 . .	. .	3	III–VII.	261	15	4.1	4.7	59.6	21.0	4.9	9.1	7.23	36.663	. .	36.
	56	Lacaille 55 . . .	. .	3	III–VII.	342	35	5.7	4.8	0.4	20.0	3.2	5.8	6.65	28.511	. .	28.
	57	Weisse O, 377 . .	. .	3	III–VII.	320	0	6.1	5.0	0.2	17.0	3.0	6.7	6.33	32.507	. .	32.8
	58	58 Piscium	. .	3	III–VII.	307	40	5.7	5.2	57.2	16.1	3.7	7.2	5.85	34.506	. .	34.8
	59	Anon. 0h. 49m. 42s. .	. .	1	V.	345	55	7.0	6.1	0.0	17.9	2.4	6.4	6.63	29.560	. .	29.8
	60	B. A. C. 319 . . .	. .	2	V, VII.	345	10	9.8	11.9	5.2	24.9	7.4	10.3	11.60	26.468	. .	26.7
	61	96 Piscium	. .	3	III–VII.	312	15	3.1	3.8	56.0	15.2	0.6	4.8	3.92	27.805	. .	28.1
	62	B. A. C. 491 . . .	. .	3	III–VII.	328	55	4.3	6.2	58.0	15.8	1.0	4.1	4.90	25.710	. .	26.0
	63	Lacaille 509 . . .	. .	3	III–VII.	348	15	5.3	7.6	2.1	21.4	2.8	5.2	7.40	31.343	. .	31.6
	64	λ¹ Arietis	. .	2	III, VII.	296	0	4.2	4.4	57.2	17.0	3.9	6.0	5.45	37.510	. .	37.8
	65	λ² Arietis	. .	2	IV–VI.	"	"	"	"	"	"	"	"	"	38.438	. .	38.7
	66	Weisse II, 35 . .	. .	3	III–VII.	314	45	3.0	2.7	56.0	15.0	1.8	4.0	3.75	31.497	. .	31.
	67	Nadir	. .	5	. .	100	0	3.7	6.7	58.0	19.4	3.3	9.4	6.75	29.901	. .	. .

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	− 1 52.3	S. 75 18 14.5	3 45.1	− 36 28 20.4	+ 25.1	Y.	
2	. .	. .	. .	− 1 57.2	75 18 9.6	3 45.3	− 36 28 15.7	+ 25.1	Y.	
3	. .	. .	. .	+ 2 10.5	1 12 19.8	1.2	+ 37 41 18.2	+ 2.1	Y.	
4	. .	. .	40.1	+ 52.0	1 11 1.3	1.2	+ 37 42 36.7	+ 2.2	Y.	
5	30.864	46.4	39.4	+ 22.8	50 50 28.0	1 13.9	− 11 58 2.7	+ 18.3	Y.	
6	. .	. .	. .	− 30.0	57 59 36.9	1 36.2	− 19 7 33.9	+ 22.1	Y.	
7	30.370	46.0	38.5	− 2 35.4	60 47 34.4	1 47.6	− 21 55 42.8	+ 23.6	Y.	
8	. .	. .	. .	− 1 31.3	60 48 38.5	1 47.7	− 21 56 47.0	+ 23.7	Y.	
9	. .	. .	. .	− 48.0	35 44 21.7	43.4	+ 3 8 34.1	+ 15.7	Y.	
10	. .	. .	. .	+ 40.1	67 5 50.3	2 22.2	− 28 14 33.3	+ 27.2	Y.	
11	. .	. .	. .	− 2 39.4	72 12 26.8	3 6.3	− 33 21 53.9	+ 29.7	Y.	
12	. .	. .	. .	− 1 44.8	45 8 24.5	1 0.7	− 6 15 46.0	+ 20.7	Y.	Whole rev. recorded 34.
13	30.384	45.3	38.1	+ 12.2	45 10 21.5	1 0.8	− 6 17 43.1	+ 20.7	Y.	
14	. .	. .	. .	− 2 27.7	66 22 38.9	2 17.4	− 27 31 17.1	+ 28.7	Y.	
15	. .	. .	. .	− 2 48.5	59 2 20.3	1 40.5	− 20 10 21.6	+ 26.5	Y.	
16	30.392	45.0	37.8	+ 2 20.1	S. 80 42 31.8	5 55.6	− 41 54 48.2	+ 33.7	Y.	
17	. .	. .	. .	− 3 29.5	N. 15 28 17.7	16.8	+ 54 22 13.7	+ 8.6	Y.	
18	. .	. .	. .	− 1 10.1	S. 47 4 0.9	1 4.9	− 8 11 26.6	+ 23.9	Y.	
19	30.398	45.0	37.9	− 14.7	72 59 52.3	3 15.6	− 34 9 28.7	+ 32.1	Y.	
20	. .	. .	. .	+ 10.7	72 0 21.8	3 4.5	− 33 9 47.1	+ 32.0	Y.	
21	. .	. .	. .	+ 1 32.7	77 46 38.0	4 33.3	− 38 57 32.1	+ 33.7	Y.	Add—2″.03 added to mean of A, B, C, and D.
22	. .	. .	. .	+ 2 24.0	72 2 31.8	3 5.1	− 33 11 58.1	+ 32.1	Y.	
23	. .	. .	. .	− 20.2	65 54 49.2	2 15.0	− 27 3 25.0	+ 30.4	Y.	
24	30.398	44.2	36.3	− 2 44.3	65 52 25.2	2 14.8	− 27 1 0.8	+ 30.4	Y.	
25	. .	. .	. .	− 2 47.5	76 57 23.4	4 16.8	+ 38 8 1.5	+ 33.4	Y.	Add—2″.03 added to mean of A, B, C, and D.
26	. .	. .	. .	− 2 26.0	76 57 44.9	4 16.8	− 38 8 23.0	+ 33.4	Y.	
27	. .	. .	. .	+ 1 11.3	71 21 20.1	3 3.4	− 33 0 44.3	+ 31.9	Y.	
28	30.396	43.8	36.2	+ 1 4.2	S. 73 31 12.1	3 22.7	− 34 40 55.6	+ 32.2	Y.	
29	. .	. .	. .	+ 1 27.7	N. 18 13 20.1	20.0	+ 57 7 19.3	+ 14.4	Y.	
30	. .	. .	. .	− 1 19.1	S. 41 8 50.7	53.1	− 2 16 4.6	+ 24.0	Y.	
31	. .	. .	. .	+ 1 16.8	67 26 27.9	2 25.3	− 28 35 14.0	+ 30.1	Y.	
32	. .	. .	. .	− 4.2	36 30 2.9	44.9	+ 2 22 51.4	+ 23.0	Y.	
33	30.400	43.0	35.5	− 2 16.5	41 27 49.2	53.7	− 2 35 3.7	+ 24.0	Y.	
34	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	Y.	
35	30.324	48.5	44.0	+ 1 28.1	52 31 26.6	1 17.6	− 13 39 5.0	+ 19.5	F.	
36	30.304	46.0	44.7	+ 2 12.2	69 37 11.9	2 38.9	− 30 46 11.6	+ 30.3	F.	
37	. .	. .	. .	− 1 52.0	40 38 8.8	51.2	− 1 45 20.8	+ 21.6	F.	
38	30.290	44.0	39.8	− 1 0.2	S. 62 33 58.8	1 55.3	− 23 42 14.9	+ 29.4	F.	
39	. .	. .	. .	− 3 29.7	N. 18 48 32.0	20.5	+ 57 42 31.7	+ 11.3	F.	
40	. .	. .	. .	− 4 36.4	S. 23 35 15.0	26.3	+ 15 17 57.9	+ 19.5	F.	
41	30.288	43.0	38.2	− 23.5	N. 16 55 25.4	18.3	+ 55 49 22.9	+ 13.7	F.	
42	. .	. .	. .	− 1 23.8	N. 49 41 36.2	1 11.1	+ 88 36 26.5	+ 16.6	F.	
43	30.298	42.0	36.9	− 2 56.0	S. 23 51 51.5	26.7	+ 15 1 21.0	+ 20.8	F.	
44	30.286	41.5	36.5	+ 1 7.1	65 55 46.3	2 14.7	− 27 4 21.8	+ 27.4	F.	Whole rev. not recorded.
45	. .	. .	. .	− 35.9	S. 34 44 6.2	41.9	+ 4 8 51.1	+ 21.9	F.	
46	. .	. .	. .	− 1 21.6	N. 16 20 44.7	17.7	+ 55 14 41.6	+ 18.4	F.	Whole rev. recorded 30.
47	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	F.	Undoubtedly read wrong index. $29^{r}.889$ assumed as correct micrometer reading.
48	29.812	48.0	48.1	+ 1 36.7	S. 65 11 44.1	2 7.9	− 26 20 13.6	+ 27.1	F.	
49	. .	. .	. .	− 2 57.3	43 47 11.0	56.5	− 4 54 28.3	+ 20.4	F.	
50	29.804	46.5	40.0	+ 4.7	49 50 14.3	1 9.9	− 10 57 45.0	+ 23.1	F.	Barometer recorded 28.904.
51	. .	. .	. .	+ 2 20.5	59 2 26.7	1 38.2	− 20 10 25.6	+ 27.0	F.	
52	. .	. .	. .	+ 10.4	40 0 14.2	49.7	− 1 7 24.7	+ 21.2	F.	
53	29.810	44.0	38.7	+ 33.9	56 35 34.0	1 29.6	− 17 43 24.4	+ 27.3	F.	
54	. .	. .	. .	+ 22.0	S. 58 30 23.1	1 36.5	− 19 38 20.4	+ 28.4	F.	Whole rev. recorded 30.
55	29.816	43.8	37.5	− 3 37.9	N. 18 48 30.7	20.2	+ 57 42 30.1	+ 10.3	F.	
56	. .	. .	. .	+ 36.6	S. 62 35 43.2	1 54.1	− 23 43 58.1	+ 30.2	F.	
57	. .	. .	. .	− 1 28.3	39 58 38.0	49.8	− 1 5 48.6	+ 23.7	F.	
58	. .	. .	. .	− 2 30.8	27 37 35.0	31.1	+ 11 15 33.1	+ 20.8	F.	
59	29.810	43.0	37.1	+ 4.0	65 55 10.6	2 12.3	− 27 3 43.7	+ 30.9	F.	Barometer recorded 30.810.
60	. .	. .	. .	+ 1 40.6	75 11 52.2	3 41.4	− 36 21 54.4	+ 33.0	F.	Circle reading 345° 10′.
61	. .	. .	. .	+ 58.9	32 16 2.8	37.5	+ 6 36 58.9	+ 22.3	F.	
62	. .	. .	. .	+ 2 4.4	48 57 9.3	1 8.2	− 10 4 38.3	+ 25.7	F.	
63	. .	. .	. .	− 52.0	68 14 15.4	2 28.1	− 29 23 4.3	+ 28.4	F.	
64	. .	. .	. .	− 4 4.7	15 56 0.7	17.0	+ 22 57 21.5	+ 19.4	F.	Whole rev. recorded 38.
65	. .	. .	. .	− 4 33.9	15 55 31.5	17.0	+ 22 57 50.7	+ 19.4	F.	
66	29.820	41.5	35.5	− 56.4	S. 34 44 7.3	41.3	+ 4 8 50.6	+ 22.0	F.	
67	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	F.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES. A.	B.	C.	D.	E.	F.	Mean.	MICROMETER. Observed.	Nadir cor.	[illegible]
1868.						° ′ ″	″	″	″	″	″	″	r.	r.	r
Nov. 19	1	Weisse XXI, 1087 .	8.8	3	III-VII.	330 50 3.2	6.2	57.9	16.9	3.1	6.8	5.68	27.443	+ 0.197	[illegible]
	2	O. Arg. S. 21915 .	9.0	3	III-VII.	341 15 4.4	9.1	58.9	20.3	5.2	7.1	7.50	36.392	. .	[illegible]
	3	Lacaille 9052 . .	6.0	3	III-VII.	359 40 7.2	11.7	1.9	25.3	7.2	9.8	10.52	31.138	. .	[illegible]
	4	Lacaille 9127 . .	. .	3	III-VII.	346 25 5.2	7.9	59.7	19.9	3.4	8.0	7.35	34.055	. .	[illegible]
	5	δ Gruis	5.0	3	III-VII.	362 55 5.7	10.4	1.8	24.8	6.6	9.9	9.87	27.405	. .	[illegible]
	6	Anon. 22h. 31m. 32s.	9.0	3	III-VII.	347 50 4.5	8.7	1.1	21.1	4.5	8.5	8.07	32.863	. .	[illegible]
	7	Lacaille 9248 . .	5.5	3	III-VII.	353 40 2.4	6.1	57.7	18.0	0.8	4.9	4.98	26.652	. .	[illegible]
	8	O. Arg. S. 22499 .	8.5	3	III-VII.	343 25 5.1	8.6	58.8	19.8	3.6	7.9	7.30	30.595	. .	[illegible]
	9	O. Arg. S. 22508 .	8.2	3	V, VII, IX.	" " "	"	"	"	"	"	"	31.865	. .	[illegible]
	10	Weisse XXIII, 98 .	9.5	3	V, VII, IX.	325 55 8.7	11.2	1.8	21.8	8.1	12.1	10.62	33.331	. .	[illegible]
	11	Lalande 45758 . .	8.0	3	III-VII.	320 0 6.5	10.1	0.8	20.0	6.6	10.2	9.03	29.510	. .	[illegible]
	12	12 Piscium	6.0	3	III-VII.	320 40 4.9	8.8	58.2	18.8	4.5	8.4	7.27	33.403	. .	[illegible]
	13	Weisse XXIII, 609 .	9.2	2	VII, IX.	320 45 2.1	5.5	56.1	16.3	2.2	4.9	4.52	33.386	. .	[illegible]
	14	22 Piscium	5.5	3	III-VII.	316 40 4.8	7.3	58.3	18.0	5.8	10.0	7.37	28.450	. .	[illegible]
	15	O. Arg. S. 23124 .	8.3	3	III-VII.	337 25 3.0	7.8	57.6	17.8	3.5	7.1	6.13	28.546	. .	[illegible]
	16	Anon. 23h. 58m. 10s.	9.0	3	III-VII.	352 5 3.1	9.0	58.9	20.2	2.7	5.3	6.53	31.750	. .	[illegible]
	17	O. Arg. S. 48 . .	9.5	3	V, VII, IX.	334 50 2.9	7.7	57.0	18.3	3.3	6.7	5.98	37.602	. .	[illegible]
	18	Lacaille 142 . . .	6.0	3	III-VII.	342 25 3.3	7.8	59.7	21.2	3.3	7.1	7.07	28.646	. .	[illegible]
	19	Weisse O, 664 . .	9.2	2	V-IX.	320 25 3.8	8.3	59.2	20.7	5.4	9.1	7.75	31.864	. .	[illegible]
	20	Nadir	. .	5	. .	100 0 3.5	11.7	59.2	24.0	7.4	12.7	9.75	29.994	. .	. .
23	21	Weisse XXIII, 1183	. .	3	III-VII.	320 5 6.5	6.8	59.4	17.8	4.1	8.2	7.13	26.770	+ 0.204	[illegible]
	22	Lacaille 60 . . .	. .	3	III-VII.	354 55 8.0	8.4	1.6	19.4	5.0	6.9	8.22	26.042	. .	[illegible]
	23	Weisse O, 377 . .	. .	3	III-VII.	320 0 5.9	4.2	56.2	14.0	1.2	4.8	4.38	32.468	. .	[illegible]
	24	Lacaille 181 . . .	. .	2	V, VII.	355 35 3.5	6.2	56.9	17.5	59.7	3.0	4.47	30.782	. .	[illegible]
	25	Weisse O, 772 . .	. .	3	III-VII.	320 5 4.0	4.1	56.6	15.8	1.9	15.5	6.32	30.167	. .	[illegible]
	26	B. A. C. 296 . . .	. .	3	III-VII.	349 5 3.4	5.8	58.8	18.4	1.9	7.9	6.03	29.924	. .	[illegible]
	27	Nadir	. .	5	. .	100 0 3.2	6.0	55.6	20.8	3.6	8.0	6.20	29.904	. .	.
Dec. 9	28	B. A. C. 81 . . .	. .	3	III-VII.	321 50 5.0	8.0	59.8	22.0	4.0	5.0	7.30	31.235	+ 0.181	[illegible]
	29	Lacaille 131 . . .	. .	3	IV-VI.	351 50 3.1	9.0	0.0	23.7	2.3	2.0	6.68	27.580	. .	[illegible]
	30	O. Arg. S. 388 . .	. .	3	III-VII.	346 5 4.3	7.9	0.1	21.1	3.0	2.0	6.40	28.397	. .	[illegible]
	31	Santini 46 . . .	. .	3	III-VII.	316 10 4.1	5.0	57.2	20.0	2.9	5.1	5.72	25.267	. .	[illegible]
	32	B. A. C. 274 . . .	. .	3	III-VII.	313 5 4.1	6.0	59.0	20.8	4.9	4.0	6.47	27.315	. .	[illegible]
	33	θ Cassiopeæ . . .	. .	3	IV-VI.	264 30 4.0	8.7	2.2	28.0	7.0	9.0	9.82	36.567	. .	[illegible]
	34	Nadir	. .	5	. .	100 0 3.8	10.8	58.1	27.2	5.5	7.3	10.45	30.032	. .	. .
17	35	Anon. 23h. 58m. 55s.	8.0	3	IV-VI.	261 20 3.8	2.9	56.7	19.8	4.5	7.7	5.90	33.241	+ 0.086	[illegible]
	36	Groombridge 34 .	8.0	2	VI, VII.	275 40 7.0	5.3	59.1	21.1	8.8	11.3	8.77	36.492	. .	[illegible]
	37	Lacaille 86 . . .	. .	3	III-VII.	341 15 6.3	6.8	0.2	21.0	7.0	6.0	7.88	28.306	. .	[illegible]
	38	Weisse O, 466 . .	9.0	2	V, VII.	315 15 5.0	2.9	55.0	13.8	5.0	5.7	4.57	33.719	. .	[illegible]
	39	Anon. 0h. 35m. 21s. .	9.0	3	III-VII.	316 45 4.9	2.0	56.0	15.2	4.8	6.0	4.82	29.149	. .	[illegible]
	40	Weisse O, 762 . .	. .	3	III-VII.	320 10 4.0	2.8	56.8	13.5	3.0	4.1	4.03	34.165	. .	[illegible]
	41	Weisse I, 76 . . .	8.0	3	III-VII.	308 45 3.0	1.9	56.0	13.0	4.3	5.0	3.87	28.024	. .	[illegible]
	42	Lalande 2410 . .	8.5	3	III-VII.	306 5 5.3	4.1	7.0	15.1	5.1	7.3	7.32	27.427	. .	[illegible]
	43	Lacaille 408 . . .	. .	3	III-VII.	346 40 5.1	3.9	59.0	17.1	3.2	4.2	5.42	31.692	. .	[illegible]
	44	Lacaille 453 . . .	. .	3	III-VII.	347 45 2.8	3.0	57.8	16.0	1.8	3.3	4.12	28.039	. .	[illegible]
	45	Weisse I, 582 . .	8.0	3	IV-VI.	321 10 6.1	6.0	0.0	18.0	6.3	7.2	7.27	32.888	. .	[illegible]
	46	Weisse I, 721 . .	8.5	3	III-VII.	304 55 6.0	3.2	57.1	16.8	7.0	7.1	6.20	27.219	. .	[illegible]
	47	47 Cassiopeæ . . .	. .	3	1-5.	242 15 5.3	3.7	59.9	21.9	6.0	10.2	7.83	29.629	. .	[illegible]
	48	B. A. C. 643 . . .	6.0	3	III-VII.	348 50 3.9	5.1	58.9	18.2	3.8	4.0	5.65	35.771	. .	[illegible]
	49	Lacaille 678 . . .	. .	3	III-VII.	343 0 6.1	5.2	9.2	18.0	5.3	5.3	8.18	28.200	. .	[illegible]
	50	Anon. 2h. 14m. 40s. .	. .	1	V.	256 50 4.2	5.2	2.0	24.1	9.0	12.9	9.57	33.190	. .	[illegible]
	51	B. A. C. 766 . . .	. .	2	III-VII.	294 15 6.3	5.0	59.0	18.8	7.8	8.0	7.48	31.652	. .	[illegible]
	52	B. A. C. 790, (1st *) .	9.0	4	I, II, VIII, IX.	347 40 6.0	6.0	0.3	19.0	4.2	7.0	7.08	29.780	. .	[illegible]
	53	B. A. C. 790, (2d *) .	6.0	3	IV-VI.	" " "	"	"	"	"	"	"	29.979	. .	[illegible]
	54	Lacaille 838 . . .	. .	3	III-VII.	347 35 5.3	4.0	0.0	19.0	3.7	6.0	6.33	31.700	. .	[illegible]
	55	O. Arg. S. 1834 . .	. .	3	III-VII.	344 0 5.0	4.9	8.0	18.3	4.3	4.9	7.58	27.651	. .	[illegible]
	56	Nadir	. .	5	. .	100 0 5.7	7.0	57.8	20.9	7.0	10.8	8.20	30.056	. .	.
21	57	Groombridge 34 . .	. .	3	IV-VI.	275 40 4.0	1.1	56.0	16.0	4.9	8.8	5.13	36.291	+ 0.064	[illegible]
	58	Anon. 0h. 20m. 44s. .	. .	2	II, IV.	317 45 3.0	0.2	53.0	10.2	1.1	4.0	1.92	34.858	. .	[illegible]
	59	Anon. 0h. 28m. 13s. .	9.7	1	V.	" " "	"	"	"	"	"	"	25.246	. .	[illegible]
	60	Anon. 0h. 30m. 19s. .	8.7	2	VI, VIII.	" " "	"	"	"	"	"	"	30.270	. .	[illegible]
	61	Anon. 0h. 35m. 14s. .	. .	3	III-VII.	316 50 2.0	59.3	52.6	10.2	1.1	3.9	1.52	25.443	. .	[illegible]
	62	Weisse O, 733 . .	7.5	3	III-VII.	311 55 3.0	1.8	55.1	12.4	2.4	3.8	3.08	28.365	. .	[illegible]
	63	Weisse O, 788 . .	8.0	3	III-VII.	" " "	"	"	"	"	"	"	32.508	. .	[illegible]
	64	Weisse O, 878 . .	. .	3	IV-VI.	" " "	"	"	"	"	"	"	22.480	. .	[illegible]
	65	Weisse O, 891 . .	. .	2	VII, IX.	" " "	"	"	"	"	"	"	35.070	. .	[illegible]

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	29.826	50.0	44.7	+ 1 13.8	S. 50 51 19.4	1 11.8	+ 11 58 52.0	+ 18.7	Y.	
2	. .	. .	. .	− 3 26.4	61 11 41.1	1 46.3	+ 22 19 48.2	+ 23.7	Y.	
3	. .	. .	43.3	− 42.1	79 39 28.4	5 11.4	− 40 51 0.6	+ 30.1	Y.	
4	. .	. .	. .	− 2 13.2	66 22 54.1	2 13.8	− 27 31 28.7	+ 26.8	Y.	
5	29.822	49.2	41.8	+ 1 14.7	82 56 24.5	7 25.5	− 44 10 10.8	+ 32.5	Y.	
6	. .	. .	. .	− 1 36.0	67 48 32.0	2 23.4	− 28 57 16.2	+ 28.3	Y.	
7	. .	. .	. .	+ 1 38.4	73 41 43.3	3 18.6	− 34 51 22.7	+ 30.8	Y.	
8	. .	. .	. .	− 24.9	63 24 42.4	1 57.0	− 24 33 0.2	+ 27.9	Y.	
9	29.818	48.1	42.2	− 59.0	63 24 8.3	1 57.0	− 24 32 26.1	+ 28.0	Y.	Whole rev. recorded 30.
10	. .	. .	. .	− 1 50.4	45 53 20.2	1 0.7	− 7 0 41.7	+ 22.9	Y.	
11	. .	. .	40.8	+ 9.4	40 0 18.4	49.4	− 1 7 28.6	+ 21.4	Y.	
12	. .	. .	. .	− 1 52.7	40 38 14.5	49.4	− 1 45 24.7	+ 22.0	Y.	
13	29.806	47.1	41.1	− 1 52.2	40 43 12.3	49.4	− 1 50 22.5	+ 22.4	Y.	
14	. .	. .	. .	+ 42.4	36 40 49.7	43.9	+ 2 12 5.6	+ 21.8	Y.	
15	. .	. .	. .	+ 39.7	57 25 45.8	1 32.1	− 18 33 38.7	+ 28.5	Y.	
16	. .	. .	39.8	− 1 1.2	72 4 5.3	3 0.8	− 33 13 26.9	+ 33.2	Y.	
17	29.808	45.9	39.0	− 4 4.3	54 46 1.6	1 23.6	− 15 53 46.0	+ 28.0	Y.	
18	. .	. .	. .	+ 36.0	62 25 43.0	1 53.0	− 23 33 56.8	+ 33.2	Y.	Circle reading recorded 352° 25′.
19	. .	. .	. .	− 1 4.4	40 24 3.3	50.4	− 1 31 14.5	+ 24.3	Y.	Whole rev. not recorded.
20	. .	. .	. .	. .	. . . .	. .	. . . .	. .	Y.	
21	30.168	40.5	34.1	+ 1 31.9	40 6 39.0	51.3	− 1 13 51.1	+ 23.5	F.	
22	. .	. .	. .	+ 1 54.5	74 57 2.7	3 41.8	− 36 7 5.3	+ 34.6	F.	
23	30.160	40.0	33.9	− 1 26.5	39 58 37.8	50.7	− 1 5 49.3	+ 24.1	F.	
24	. .	. .	. .	− 33.8	75 34 30.6	3 51.4	− 36 44 42.8	+ 34.6	F.	
25	. .	. .	. .	− 14.4	40 4 51.9	50.9	− 1 12 3.6	+ 24.5	F.	
26	30.168	40.5	35.2	− 7.0	69 4 59.0	2 36.9	− 30 13 56.7	+ 32.5	F.	Whole rev. not recorded.
27	. .	. .	. .	. .	. . . .	. .	. . . .	. .	F.	
28	30.050	33.5	25.0	− 44.3	41 49 23.0	55.0	− 2 56 38.8	+ 25.9	D.	Bad night; stars blurred and unsteady.
29	. .	. .	. .	+ 1 10.0	71 51 16.6	3 5.5	− 33 0 42.9	+ 35.9	D.	
30	. .	. .	24.0	+ 44.3	66 5 50.7	2 18.2	− 27 14 29.7	+ 34.2	D.	
31	. .	. .	. .	+ 2 22.5	36 12 28.2	45.1	+ 2 40 25.9	+ 24.5	D.	
32	30.044	33.0	24.3	+ 1 18.4	S. 33 6 24.8	40.1	+ 5 46 34.3	+ 23.6	D.	
33	. .	. .	. .	− 3 59.3	N. 15 33 49.5	17.1	+ 54 27 45.8	+ 11.3	D.	
34	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
35	. .	. .	. .	− 1 44.0	N. 18 41 38.1	20.0	+ 57 35 37.3	+ 8.0	D.	
36	. .	. .	. .	− 3 25.5	N. 4 23 16.8	4.5	+ 43 17 0.5	+ 11.3	D.	
37	29.488	40.0	36.1	+ 50.2	S. 61 15 58.0	1 47.2	− 22 24 6.0	+ 33.3	D.	
38	. .	. .	. .	− 1 59.1	35 13 5.4	41.6	+ 3 39 52.2	+ 24.4	D.	
39	. .	. .	. .	+ 23.9	36 45 28.7	43.9	+ 2 7 26.6	+ 25.1	D.	
40	29.492	39.5	38.3	− 2 13.2	40 7 50.8	49.4	− 1 15 1.0	+ 26.4	D.	
41	. .	. .	38.0	+ 1 1.8	28 46 5.6	32.2	+ 10 7 1.4	+ 22.7	D.	
42	. .	. .	. .	+ 1 17.9	26 6 25.2	28.8	+ 12 46 45.2	+ 21.9	D.	
43	. .	. .	37.0	− 55.8	66 39 9.6	2 15.5	− 27 47 45.9	+ 34.8	D.	
44	. .	. .	. .	+ 58.5	67 46 2.6	2 23.0	− 28 54 46.4	+ 34.9	D.	
45	. .	. .	. .	− 1 14.3	41 8 52.9	51.3	− 2 16 5.0	+ 26.6	D.	
46	29.505	39.5	37.6	+ 1 24.4	S. 24 56 30.6	27.3	+ 13 56 41.3	+ 21.4	D.	
47	. .	. .	. .	+ 8.9	N. 37 44 43.3	45.5	+ 76 39 8.0	+ 8.9	D.	
48	. .	. .	37.7	− 3 3.5	S. 68 47 2.1	2 30.4	− 29 55 53.3	+ 34.0	D.	
49	. .	. .	. .	+ 53.5	S. 63 1 1.6	1 55.0	− 24 9 17.4	+ 31.9	D.	
50	. .	. .	. .	− 1 42.5	N. 23 11 33.0	25.2	+ 62 5 37.4	+ 10.7	D.	
51	. .	. .	. .	− 54.2	S. 14 14 13.2	14.9	+ 24 39 11.1	+ 18.0	D.	Blurred badly.
52	. .	. .	. .	+ 3.5	67 40 10.5	2 22.1	− 28 48 53.4	+ 32.0	D.	
53	. .	. .	38.5	− 2.1	67 40 4.9	2 22.0	− 28 48 47.7	+ 32.0	D.	
54	. .	. .	. .	− 56.1	67 34 10.2	2 21.2	− 28 42 52.2	+ 31.3	D.	
55	29.518	40.0	39.3	+ 1 10.7	64 1 18.2	1 59.8	− 25 9 38.8	+ 30.0	D.	
56	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
57	. .	. .	. .	− 3 18.8	N. 4 23 13.7	4.6	+ 43 16 57.5	+ 11.5	D.	
58	. .	. .	. .	− 2 34.2	S. 37 42 27.7	45.9	+ 1 10 25.6	+ 25.3	D.	
59	. .	. .	. .	+ 2 26.8	37 47 28.7	46.1	+ 1 5 24.4	+ 25.5	D.	
60	. .	. .	. .	− 10.2	37 44 51.7	46.1	+ 1 8 1.4	+ 25.6	D.	
61	29.995	45.0	39.0	+ 2 20.6	36 52 22.1	44.7	+ 2 0 32.4	+ 25.4	D.	
62	. .	. .	. .	+ 49.7	31 55 52.7	37.2	+ 6 57 9.3	+ 23.7	D.	
63	. .	. .	. .	− 1 20.4	31 53 42.6	37.2	+ 6 59 19.4	+ 23.8	D.	
64	. .	. .	. .	+ 3 53.4	31 58 56.4	37.3	+ 6 54 5.5	+ 23.9	D.	
65	. .	. .	. .	− 2 40.4	S. 31 52 22.6	37.2	+ 7 0 39.4	+ 23.8	D.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.									MICROMETER.	
						A.			B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.
						°	′	″	″	″	″	′	″	″	r.	r.
1868. Dec. 21	1	Anon. 0h. 56m. 31s.	9.0	2	V, IX.	343	25	3.2	1.6	56.1	14.0	1.0	3.6	3.25	25.922	. .
	2	Anon. 1h. 5m. 32s.	. .	3	III–VII.	306	35	2.6	0.8	54.1	12.8	2.2	5.0	2.92	34.567	. .
	3	Anon. 1h. 12m. 49s.	. .	3	III–VII.	316	0	4.8	1.1	56.0	14.0	3.3	6.9	4.35	28.291	. .
	4	Weisse I, 362	8.0	3	III–VII.	325	15	5.0	4.0	56.0	14.5	5.0	6.0	5.08	29.062	. .
	5	Anon. 1h. 33m. 11s.	8.7	3	I, III, V.	305	5	4.7	2.1	55.9	15.8	4.8	6.8	5.02	30.522	. .
	6	Anon. 1h. 33m. 19s.	9.5	1	IX.	"	"	"	"	"	"	"	"	"	34.992	. .
	7	Anon. 1h. 41m. 42s.	9.3	2	II, V.	311	55	4.9	3.8	57.0	15.0	5.0	5.2	5.15	34.331	. .
	8	Weisse I, 736	7.0	3	VII, VIII, IX.	"	"	"	"	"	"	"	"	"	37.336	. .
	9	Anon. 1h. 49m. 38s.	9.0	3	V–VII.	346	0	5.2	4.0	59.5	16.0	4.0	4.8	5.58	30.650	. .
	10	Weisse I, 999	. .	3	III–VII.	309	25	5.0	3.7	6.8	13.2	4.7	6.0	6.57	30.279	. .
	11	Weisse I, 1018	7.5	3	V–VII.	"	"	"	"	"	"	"	"	"	32.232	. .
	12	O. Arg. S. 1433	8.0	3	III–VII.	346	0	6.0	5.0	0.2	17.0	4.5	5.3	6.33	30.729	. .
	13	Anon. 2h. 19m. 22s.	7.0	3	V–VII.	313	15	4.9	2.0	56.9	13.1	4.3	5.7	4.48	37.766	. .
	14	B. A. C. 800	6.5	3	III–VII.	311	45	4.0	3.0	57.0	14.0	4.0	5.0	4.50	32.703	. .
	15	O. Arg. S. 1758	. .	3	IV–VI.	347	20	3.2	1.3	57.6	15.2	0.1	3.2	3.43	25.883	. .
	16	Lacaille 846	. .	3	III–VII.	"	"	"	"	"	"	"	"	"	32.081	. .
	17	Weisse II, 762	8.0	3	III–VII.	320	35	2.7	1.0	55.9	13.0	1.2	3.3	2.85	27.502	. .
	18	Nadir	. .	5	. .	100	0	2.2	4.2	55.7	18.2	3.3	7.0	5.10	29.979	. .
Dec. 23	19	Lacaille 9606	. .	4	VI, VII, VIII, IX.	341	15	2.1	58.1	54.9	12.3	57.7	0.0	0.85	34.831	+ 0.076
	20	Anon. 23h. 51m. 55s.	. .	3	IV–VI.	349	5	4.0	0.3	57.8	14.0	59.0	2.0	2.85	29.986	. .
	21	Weisse XXIII, 1209	. .	3	IV–VI.	320	55	6.1	2.0	58.9	14.9	2.1	6.0	5.00	38.171	. .
	22	Anon. 0h. 1m. 4s.	. .	3	IV–VI.	"	"	"	"	"	"	"	"	"	25.392	. .
	23	Anon. 0h. 6m. 33s.	. .	3	IV, V, IX.	336	50	6.0	1.2	58.3	13.7	0.8	3.9	3.98	35.685	. .
	24	Anon. 0h. 6m. 34s.	. .	3	VI, VII, VIII.	"	"	"	"	"	"	"	"	"	37.716	. .
	25	Anon. 0h. 18m. 6s.	. .	3	III–VII.	311	55	6.1	2.1	58.5	15.1	1.9	5.0	4.78	35.411	. .
	26	49 Piscium	6.5	3	IV–VI.	303	35	6.8	2.8	59.7	17.1	3.8	6.7	6.15	31.371	. .
	27	Weisse (2) O, 746	8.0	3	III–VII.	292	35	6.0	2.3	58.0	16.0	3.0	7.3	5.43	33.111	. .
	28	Weisse O, 674	9.0	3	III–VII.	320	25	6.0	3.8	59.9	16.8	2.0	6.9	5.90	28.278	. .
	29	Anon. 0h. 46m. 41s.	9.0	3	IV–VI.	"	"	"	"	"	"	"	"	"	35.721	. .
	30	Anon. 0h. 50m. 27s.	9.3	3	III–VII.	316	50	4.9	1.4	57.4	15.8	1.1	5.3	4.32	32.120	. .
	31	Anon. 1h. 2m. 24s.	. .	2	III, VII.	"	"	"	"	"	"	"	"	"	33.053	. .
	32	Weisse I, 188	. .	3	III–VII.	305	50	6.0	4.2	59.0	16.9	2.8	5.0	5.65	33.090	. .
	33	Lacaille 438, (2d *)	. .	3	III–VII.	346	5	5.2	5.2	0.6	18.0	1.2	3.0	5.53	30.301	. .
	34	Lacaille 458	7.0	3	I, II, III.	349	25	5.4	5.9	3.0	20.8	2.0	2.2	6.55	27.587	. .
	35	O. Arg. S. 938	7.5	3	V, VI, VII.	"	"	"	"	"	"	"	"	"	31.960	. .
	36	Lacaille 462	6.5	3	V, VI, VII.	"	"	"	"	"	"	"	"	"	28.400	. .
	37	Anon. 1h. 39m. 8s.	7.0	3	III–VII.	316	10	6.0	3.2	59.7	19.7	2.8	6.2	6.27	35.193	. .
	38	Weisse I, 780	9.0	3	IV–VI.	311	0	5.3	6.0	59.8	17.7	3.4	5.0	6.20	28.726	. .
	39	Anon. 1h. 49m. 40s.	9.0	3	III–VII.	346	0	5.0	4.9	1.0	18.3	1.0	2.1	5.38	30.849	. .
	40	Anon. 2h. 0m. 12s.	. .	2	IV, VI.	315	45	5.0	4.0	58.3	17.5	1.0	4.3	5.02	33.039	. .
	41	O. Arg. S. 1388	8.5	3	II, III, IV.	348	25	6.0	7.6	3.0	21.0	1.6	4.0	7.20	28.770	. .
	42	Anon. 2h. 6m. 23s.	9.0	3	V, VI, VII.	"	"	"	"	"	"	"	"	"	24.486	. .
	43	O. Arg. S. 1404	9.0	3	V, VI, VII.	"	"	"	"	"	"	"	"	"	26.590	. .
	44	Weisse II, 397	. .	3	II, IV, V.	317	10	6.0	4.8	59.2	18.0	1.0	4.0	5.50	26.766	. .
	45	B. A. C. 776	. .	3	V, VII, VIII.	"	"	"	"	"	"	"	"	"	26.582	. .
	46	B. A. C. 803	6.5	3	III–VII.	349	30	6.3	7.8	3.5	23.6	2.0	3.5	7.78	33.643	. .
	47	B. A. C. 845	6.0	3	III–VII.	309	20	6.8	7.1	2.0	20.9	4.0	7.0	7.97	31.022	. .
	48	Weisse II, 728	8.0	3	III–VII.	306	0	6.0	6.2	59.7	20.2	1.7	6.0	6.63	32.193	. .
	49	O. Arg. S. 1887	8.0	3	III–VII.	342	20	5.0	6.2	2.0	22.2	2.0	2.8	6.70	28.220	. .
	50	Rumker 767	8.0	3	III–VII.	309	10	3.0	4.1	58.0	17.0	0.8	3.9	4.33	30.474	. .
	51	Anon. 2h. 6m. 23s.	8.0	3	IV–VI.	353	45	4.0	7.8	1.5	22.2	2.0	2.8	6.72	28.959	. .
	52	Nadir	. .	5	. .	100	0	4.5	12.1	1.0	26.9	5.7	8.8	9.83	30.118	. .
25	53	25 Piscium	. .	3	III–VII.	317	30	5.0	4.2	6.8	16.0	3.0	4.9	6.65	27.819	+ 0.066
	54	B. A. C. 8374	6.5	3	IV–VI.	290	40	5.0	5.0	58.3	17.2	4.7	6.8	6.17	38.828	. .
	55	Weisse O, 21	8.0	3	III–VII.	306	55	4.7	3.1	56.0	15.0	3.0	5.0	4.47	31.595	. .
	56	Anon. 0h. 11m. 7s.	10.0	3	III–VII.	325	50	4.0	3.4	56.2	16.0	3.0	3.1	4.28	34.563	. .
	57	O. Arg. S. 202	7.0	3	IV–VI.	339	45	4.6	5.8	0.0	20.8	3.0	3.7	6.32	32.564	. .
	58	Lacaille 100	. .	3	IV–VI.	344	15	3.8	3.4	57.1	16.2	1.0	2.0	3.92	32.979	. .
	59	Anon. 0h. 31m. 54s.	8.7	3	IV–VI.	"	"	"	"	"	"	"	"	"	30.397	. .
	60	Weisse O, 556	9.0	3	V, VI, VII.	314	20	3.8	3.1	56.8	16.0	3.2	3.9	4.47	31.399	. .
	61	Anon. 0h. 39m. 27s.	. .	3	III–VII.	325	15	4.0	4.7	56.8	16.3	3.7	4.4	4.98	31.179	. .
	62	Weisse O, 762	. .	3	III–VII.	320	5	3.9	3.7	56.8	15.4	2.0	2.3	4.02	24.644	. .
	63	Anon. 0h. 50m. 27s.	10.0	3	III–VII.	316	50	4.1	3.0	56.1	16.7	3.7	4.0	4.60	32.068	. .
	64	Anon. 0h. 58m. 11s.	8.5	3	III–VII.	311	40	4.0	5.0	57.2	18.1	4.0	4.0	5.38	27.230	. .
	65	Anon. 1h. 13m. 52s.	10.0	3	IV–VI.	296	5	4.3	5.0	57.7	18.0	6.0	5.0	6.00	34.544	. .

Number.	Barometer.	THERM'S. At.	THERM'S. Ex.	Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	30.006	44.5	36.9	+ 2 5.4	S. 63 27 8.6	1 59.2	− 24 35 28.6	+ 34.6	D.	
2	. .	. .	. .	− 2 24.9	26 32 38.0	29.9	+ 12 20 31.3	+ 22.1	D.	
3	. .	. .	37.1	+ 51.5	36 0 55.8	43.6	+ 2 51 59.8	+ 25.4	D.	
4	. .	. .	. .	+ 27.3	45 15 32.3	1 0.5	− 6 22 53.6	+ 28.4	D.	
5	. .	. .	. .	− 18.3	25 4 46.7	28.1	+ 13 48 24.4	+ 21.7	D.	
6	30.018	44.0	35.0	− 2 37.9	25 2 27.1	28.1	+ 13 50 44.0	+ 21.7	D.	
7	. .	. .	. .	− 2 17.6	31 52 47.5	37.4	+ 7 0 14.3	+ 23.8	D.	
8	. .	. .	. .	− 3 51.3	31 51 13.8	37.4	+ 7 1 48.0	+ 23.8	D.	
9	. .	. .	. .	− 22.4	65 59 43.1	2 14.3	− 27 8 18.2	+ 34.2	D.	
10	. .	. .	. .	− 13.8	29 24 52.7	33.9	+ 9 28 12.6	+ 22.8	D.	
11	. .	. .	. .	− 1 11 8	29 23 54.7	33.9	+ 9 29 10.6	+ 22.8	D.	
12	. .	. .	35.0	− 24.9	65 59 41.4	2 14.3	− 27 8 16.5	+ 33.3	D.	
13	. .	. .	. .	− 4 5.1	33 10 59.3	39.3	+ 5 42 0.6	+ 23.4	D.	
14	30.022	43.0	35.0	− 1 26.6	31 43 37.9	37.2	+ 7 9 24.1	+ 22.6	D.	
15	. .	. .	. .	+ 2 6.8	67 22 10.2	2 23.1	− 28 30 54.1	+ 32.0	D.	
16	. .	. .	35.7	− 1 7.3	67 18 56.1	2 22.9	− 28 27 39.8	+ 31.9	D.	
17	30.024	42.8	35.2	+ 1 16.2	40 36 19.0	51.5	− 1 43 31.3	+ 24.5	D.	
18	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	
19	30.129	41.7	22.2	− 2 33.7	61 12 27.1	1 52.3	− 22 20 40.2	+ 32.4	D.	
20	. .	. .	. .	− 1.9	69 5 0.9	2 40.7	− 30 14 2.4	+ 35.3	D.	
21	. .	. .	. .	− 4 18.2	40 50 46.8	53.5	− 1 58 1.1	+ 26.1	D.	
22	. .	. .	. .	+ 2 21.9	40 57 26.9	53.8	− 2 4 41.5	+ 26.2	D.	
23	. .	. .	. .	− 3 0.5	56 47 3.4	1 34.4	− 17 54 58.6	+ 31.9	D.	
24	. .	. .	21.9	− 4 3.9	56 46 0.0	1 34.4	− 17 53 55.2	+ 31.9	D.	
25	. .	. .	. .	− 2 51.7	31 52 13.0	38.6	+ 7 0 47.6	+ 23.4	D.	
26	. .	. .	. .	− 45.2	23 34 20.9	27.1	+ 15 18 51.2	+ 20.6	D.	
27	. .	. .	. .	− 1 39.6	12 33 25.8	13.8	+ 26 19 59.6	+ 17.1	D.	
28	. .	. .	. .	+ 51.5	40 25 57.4	52.9	− 1 33 11.1	+ 26.9	D.	
29	. .	. .	. .	− 3 0.8	40 22 5.1	52.9	− 1 29 18.8	+ 26.9	D.	
30	30.134	36.5	21.2	− 1 8.7	36 48 55.6	46.5	+ 2 3 57.1	+ 25.7	D.	
31	. .	. .	. .	− 1 37.9	36 48 26.4	46.5	+ 2 4 26.3	+ 25.8	D.	
32	. .	. .	21.0	− 1 39.0	25 48 26.6	30.1	+ 13 4 42.5	+ 22.1	D.	
33	. .	. .	. .	− 12.0	66 4 53.5	2 19.4	− 27 13 33.7	+ 35.2	D.	
34	. .	. .	. .	+ 1 12.8	69 26 19.3	2 44.4	− 30 35 24.5	+ 36.1	D.	
35	. .	. .	. .	− 1 4.0	69 24 2.5	2 44.2	− 30 33 7.5	+ 36.1	D.	
36	30.128	34.7	20.7	+ 47.8	69 25 54.3	2 44.4	− 30 34 59.5	+ 36.1	D.	
37	. .	. .	. .	− 2 44.9	36 7 21.3	45.3	+ 2 45 32.6	+ 25.3	D.	
38	. .	. .	. .	+ 37.5	31 0 43.7	37.4	+ 7 52 18.1	+ 23.6	D.	
39	. .	. .	. .	− 28.8	65 59 36.5	2 18.9	− 27 8 16.2	+ 34.4	D.	Whole rev. recorded 35.
40	. .	. .	. .	− 1 37.5	35 43 27.5	44.7	+ 3 9 27.0	+ 24.8	D.	
41	. .	. .	. .	+ 35.8	68 25 43.0	2 36.4	− 29 34 40.2	+ 34.4	D.	
42	. .	. .	. .	+ 2 50.3	68 27 57.5	2 36.8	− 29 36 55.1	+ 34.4	D.	
43	30.128	33.2	20.1	+ 1 44.3	68 26 51.5	2 36.8	− 29 35 49.1	+ 34.3	D.	
44	. .	. .	. .	+ 1 38.8	37 11 44.3	47.2	+ 1 41 7.7	+ 24.5	D.	
45	. .	. .	. .	+ 1 44.7	37 11 50.2	47.2	+ 1 41 1.8	+ 24.5	D.	
46	. .	. .	20.0	− 1 56.6	69 28 11.1	2 45.0	− 30 37 16.9	+ 33.2	D.	
47	. .	. .	. .	− 34.3	29 19 33.6	35.0	+ 9 33 30.6	+ 21.8	D.	
48	. .	. .	. .	− 1 11.0	25 58 55.6	30.4	+ 12 54 13.2	+ 20.6	D.	
49	. .	. .	. .	+ 53.2	62 22 58.4	1 58.5	− 23 29 19.2	+ 30.2	D.	
50	. .	. .	. .	− 17.2	29 9 47.1	34.8	+ 9 43 17.3	+ 21.1	D.	
51	30.120	32.0	19.5	+ 30.2	73 45 36.9	3 31.3	− 34 55 29.0	+ 32.0	D.	
52	. .	. .	. .	. .	. . . . .	. .	. . . . .	. .	D.	
53	30.002	38.5	26.2	+ 1 6.2	37 31 12.8	46.9	+ 1 21 39.5	+ 24.6	D.	
54	. .	. .	. .	− 4 38.4	10 35 27.7	11.5	+ 28 18 0.0	+ 15.8	D.	
55	. .	. .	. .	− 51.9	26 54 12.5	31.1	+ 11 58 55.6	+ 21.4	D.	
56	. .	. .	25.3	− 2 24.9	45 47 39.3	1 3.0	− 6 55 3.1	+ 28.4	D.	
57	. .	. .	. .	− 1 22.4	59 43 43.9	1 44.6	− 20 51 49.3	+ 33.4	D.	
58	30.004	36.7	26.0	− 1 35.3	64 13 28.6	2 6.3	− 25 21 55.7	+ 34.9	D.	
59	. .	. .	. .	− 14.5	64 14 49.4	2 6.3	− 25 23 16.5	+ 35.0	D.	
60	. .	. .	. .	− 45.7	34 19 18.7	41.7	+ 4 33 38.8	+ 24.8	D.	
61	. .	. .	. .	− 39.0	45 14 25.9	1 1.7	− 6 21 48.4	+ 28.8	D.	
62	. .	. .	. .	+ 2 45.6	40 7 49.6	51.6	− 1 15 2.0	+ 27.0	D.	
63	30.012	35.5	25.0	− 1 6.8	36 48 57.8	45.8	+ 2 3 55.6	+ 25.9	D.	
64	. .	. .	. .	+ 1 24.7	31 41 30.0	37.9	+ 7 11 31.3	+ 24.2	D.	
65	. .	. .	. .	− 2 24.3	S. 16 2 41.7	17.7	+ 22 50 39.8	+ 19.0	D.	

DATE.	Number.	OBJECT.	Magnitude.	No. of mic. readings.	Transit wires	MICROSCOPES.									MICROMETER.		
						A.			B.	C.	D.	E.	F.	Mean.	Observed.	Nadir cor.	Corr'd.
						°	′	″	″	″	″	″	″	″	r.	r.	r.
1868. Dec. 25	1	B. A. C. 477 . . .	6.0	3	IV–VI.	302	5	4.8	6.0	59.4	19.7	5.4	5.1	6.73	25.346	. .	25.[illegible]
	2	Anon. 1h. 39m 10s.	. .	3	IV–VI.	316	5	5.0	5.0	58.0	18.3	4.0	5.3	5.93	25.603	. .	25.[illegible]
	3	Anon. 1h. 41m. 42s.	9.3	2	III, V.	311	55	3.8	5.0	57.8	17.4	3.3	3.0	5.05	34.533	. .	34.[illegible]
	4	Weisse I, 736 . .	7.0	3	VII, VIII, IX.	"	"	"	"	"	"	"	"	"	37.323	. .	37.[illegible]
	5	O. Arg. S. 1219 . .	. .	3	III–VII.	343	0	5.0	6.0	59.2	19.0	3.0	1.9	5.68	36.969	. .	37.[illegible]
	6	Weisse I, 1040 . .	7.0	3	III–VII.	311	15	4.2	7.0	58.4	18.8	4.0	3.9	6.05	28.544	. .	28.[illegible]
	7	Weisse 44 . . .	9.0	1	V.	310	35	4.2	5.8	58.8	18.6	4.0	3.9	5.88	28.200	. .	28.[illegible]
	8	Anon. 2h. 4m. 58s. .	9.5	2	VII, IX.	"	"	"	"	"	"	"	"	"	27.881	. .	27.[illegible]
	9	Weisse II, 155 . .	. .	3	III–VII.	306	30	3.0	5.0	57.0	18.0	3.7	4.8	5.25	29.908	. .	29.[illegible]
	10	Weisse II, 373 . .	9.5	3	III–VII.	305	15	2.8	4.4	57.0	19.0	2.8	3.6	4.97	34.741	. .	34.[illegible]
	11	Lacaille 787 . . .	7.0	3	IV–VI.	341	25	1.4	4.7	57.8	17.7	0.2	59.0	3.47	35.446	. .	35.[illegible]
	12	B. A. C. 845 . . .	6.0	3	III–VII.	309	20	3.1	5.0	58.0	17.0	3.0	3.3	4.90	30.874	. .	30.[illegible]
	13	Weisse II, 746 . .	9.3	3	III–VII.	305	55	3.0	4.8	56.4	18.7	3.0	3.5	4.90	27.818	. .	27.[illegible]
	14	Nadir	. .	5	. .	100	0	3.1	8.2	57.1	24.4	4.2	6.1	7.18	30.043	. .	. .

Number.	Barometer.	THERM'S.		Instrumental corrections.	Apparent Zenith distance.	Refraction.	Observed Declination.	Reduction to 1870.0.	Observer.	REMARKS.
		At.	Ex.							
	in.	°	°	′ ″	° ′ ″	′ ″	° ′ ″	″		
1	. .	. .	. .	+ 2 23.7	S. 22 7 30.4	25.0	+ 16 45 43.8	+ 21.0	D.	
2	. .	. .	. .	+ 2 15.6	36 7 21.5	44.9	+ 2 45 32.8	+ 25.5	D.	
3	. .	. .	. .	− 2 23.9	31 52 41.1	38.4	+ 7 0 19.7	+ 24.4	D.	
4	. .	. .	22.3	− 3 50.9	31 51 14.1	38.4	+ 7 1 46.7	+ 24.1	D.	
5	. .	. .	. .	− 3 40.4	62 56 25.2	2 0.2	− 24 4 46.2	+ 34.0	D.	
6	. .	. .	. .	+ 43.6	31 15 49.6	37.5	+ 7 37 12.1	+ 23.6	D.	
7	. .	. .	. .	+ 54.3	30 36 0.1	36.6	+ 8 17 2.5	+ 23.3	D.	
8	. .	. .	. .	+ 1 4.4	30 36 10.2	36.6	+ 8 16 52.4	+ 23.2	D.	
9	. .	. .	22.0	+ 0.9	26 30 6.1	30.8	+ 12 23 2.3	+ 21.8	D.	
10	. .	. .	. .	− 2 30.4	25 12 34.5	29.1	+ 13 40 35.6	+ 21.1	D.	
11	30.035	31.5	21.6	− 2 52.6	61 22 10.8	1 52.9	− 22 30 24.5	+ 31.6	D.	
12	. .	. .	. .	− 29.6	29 19 35.3	34.8	+ 9 33 29.1	+ 22.0	D.	
13	. .	. .	21.1	+ 1 6.3	S. 25 56 11.2	30.1	+ 12 56 57.9	+ 20.7	D.	
14	. .	. .	. .	. .	. . . .	. .	. . . .	. .	D.	

OBSERVATIONS

WITH

THE EQUATORIAL.

1868.

OBSERVATIONS

WITH

THE EQUATORIAL, 1868.

BRORSEN'S COMET.

	Sidereal time.	Δ α.	Δ δ.	Δ ρ.	α.	l. Δ p.	δ.	l. Δ p.	Star.	Obs.
	h. m. s.	m. s.	′ ″	s. ″	h. m. s.		° ′ ″			
May 11.	12 8 4.5	− 2 56.08	+ 6 7.9	0.00+0.2	6 12 28.50	9.8160	+ 45 27 26.3	0.5781	*a*	H.
16.	12 51 26.0	− 2 27.27	+ 11 14.3	+ 0.04+0.3	6 58 43.73	9.8395	+ 48 18 52.1	0.5465	*b*	H.
21.	13 49 28.1	+ 0 28.88	+ 2 12.7	0.00+0.0	7 49 37.15	9.8534	+ 49 53 21.5	0.5439	*c*	H.
22.	13 9 56.4	+ 0 45.70	− 4 11.0	+ 0.03−0.4	7 59 43.42	9.8444	+ 50 1 40.0	0.3820	*d*	H.
26.	13 38 27.6	+ 1 9.03	+ 3 50.4	− 0.01+0.1	8 41 29.65	9.8380	+ 50 0 16.6	0.3282	*e*	H.

COMPARISON STARS.

	Mean time.	Star.	α 1868.	Red.	δ 1868.	Red.	Authority.	Comp.	C−O.
	h. m. s.		h. m. s.	s.	° ′ ″	″			
May 11.	8 47 35.7	*a*	6 15 25.31	− 0.73	+ 45 21 21.2	− 3.0	Transit Circle, 3 obs.	21.7	. . . . . .
16.	9 11 10.6	*b*	7 1 11.66	− 0.70	+ 48 7 39.3	− 1.2	Argelander . . .	8.3	. . . . . .
21.	9 49 23.7	*c*	7 49 8.91	− 0.64	+ 49 51 8.2	+ 0.6	Argelander . . .	21.5	. . . . . .
22.	9 6 2.5	*d*	7 58 58.31	− 0.62	+ 50 5 51.0	+ 0.4	Argelander . . .	24.6	. . . . . .
26.	9 18 45.4	*e*	8 40 51.12	− 0.49	+ 49 56 23.7	+ 2.4	Argelander . . .	18.6	. . . . . .

ENCKE'S COMET.

	Sidereal time.	Δ α.	Δ δ.	Δ ρ.	α.	l. Δ p.	δ.	l. Δ p.	Star.	Obs.
	h. m. s.	m. s.	′ ″	s. ″	h. m s.		° ′ ″			
Aug. 13.	1 1 26.6	+ 0 33.93	− 2 28.0	+ 0.01−0.2	7 0 37.55	9.7286*n*	+ 30 48 49.5	0.6751	*a*	H.
14.	0 51 42.9	− 1 12.14	− 3 42.5	− 0.01−0.2	7 8 10.58	9.7263*n*	+ 30 32 48.0	0.6999	*b*	H.
14.	1 11 56.1	+ 0 26.70	− 2 33.1	+ 0.01−0.2	7 8 16.81	9.7273*n*	+ 30 32 35.7	0.6775	*c*	H.
15.	1 4 9.2	+ 1 42.98	+ 10 12.3	+ 0.05+0.9	7 15 55.94	9.7255*n*	+ 30 14 31.2	0.6622	*d*	H.
21.	2 1 4.2	− 1 9.42	+ 7 13.4	− 0.03+0.5	8 3 49.47	9.7150*n*	+ 27 38 4.9	0.6957	*e*	H.
21.	2 5 47.4	− 2 8.51	+ 6 34.2	− 0.02+0.4	8 3 51.34	9.7151*n*	+ 27 37 53.7	0.6887	*f*	H.

COMPARISON STARS.

	Mean time.	Star.	α 1868.	Red.	δ 1868.	Red.	Authority.	Comp.	C−O. A. N. 1692.
	h. m. s.		h. m. s.	s.	° ′ ″	″			s. ″
Aug. 13.	15 29 15.6	*a*	7 0 3.29	+ 0.32	+ 30 51 28.5	− 10.8	Transit Circle, 3 obs.	24.5	− 19.78+1 10.5
14.	15 15 37.5	*b*	7 9 22.36	+ 0.37	+ 30 56 40.4	− 9.7	" 3 obs.	18.6	− 20.22+1 12.8
14.	15 35 47.4	*c*	7 7 49.72	+ 0.38	+ 30 35 19.0	− 10.0	" 2 obs.	18.4	− 19.99+1 10.9
15.	15 24 5.9	*d*	7 14 12.54	+ 0.37	+ 30 4 27.6	− 9.6	" 2 obs.	30.10	− 20.57+1 13.2
21.	15 57 16.1	*e*	8 4 58.65	+ 0.27	+ 27 30 59.8	− 8.8	" 2 obs.	18.6	− 20.09+1 44.3
21.	16 1 58.5	*f*	8 5 59.60	+ 0.27	+ 27 31 27.9	− 8.8	" 2 obs.	9.3	− 20.37+1 49.2

ARETHUSA (95).

Sidereal time.		Δ α.	Δ δ.	Δ ρ.	α.	l. Δ p.	δ.	l. Δ p.	Star.	Obs.
	h. m. s.	m. s.	′ ″	s. ″	h. m. s.		° ″ ″			
Feb. 18.	5 46 6	+ 1 7.49	− 4 55.6	0.00—0.1	3 58 14.33	9.3365	+ 16 10 42.4	0.5557	*a*	H.
19.	6 46 36	+ 2 4.51	− 3 59.0	0.00—0.1	3 59 11.31	9.5045	+ 16 11 39.0	0.5883	*a*	H.

COMPARISON STAR.

Mean time.		Star.	α 1868.	Red.	δ 1868.	Red.	Authority.	Comp.	C—O.
	h. m. s.		h. m. s.	s.	° ′ ″	″			
Feb. 18.	7 53 0	*a*	3 57 6.66	+ 0.16	+ 16 15 46.4	− 8.3	Transit Circle, 1 obs.	28.10	. . . . .
19.	8 49 24	*a*	3 57 6.66	+ 0.14	+ 16 15 46.4	− 8.3	. . . .	24.8	. . . . .

ELPIS (59).

Sidereal time.		Δ α.	Δ δ.	Δ ρ.	α.	l. Δ p.	δ.	l. Δ p.	Star.	Obs
	h. m. s.	m. s.	′ ″	s. ″	h. m. s.		° ′ ″			
May 26.	15 55 29	+ 0 3.26	− 10 41.0	0.00—0.4	17 9 56.59	9.1730*n*	− 9 49 3.3	0.8166	*a*	H
June 12.	15 29 47	− 0 47.81	− 12 21.3	0.00—0.5	16 55 18.01	9.2298*n*	− 9 17 1.6	0.8122	*b*	H

COMPARISON STARS.

Mean time.		Star.	α 1868.	Red.	δ 1868.	Red.	Authority.	Comp.	C.—O. B.J.
	h. m. s.		h. m. s.	s.	° ′ ″	″			s.
May 26.	11 35 25	*a*	17 9 51.27	+ 2.06	− 9 38 21.9	+ 4.6	Bessel	18.6	− 0.06 + 7.5
June 12.	10 2 56	*b*	16 56 3.57	+ 2.25	− 9 4 44.9	+ 5.1	Schjellerup . . .	24.4	− 0.57 + 1.3

IANTHE (98).

Sidereal time.		Δ α.	Δ δ.	Δ ρ.	α.	l. Δ p.	δ.	l. Δ p.	Star.	O
	h. m. s.	m. s.	′ ″	s. ″	h. m. s.		° ′ ″			
April 23.	11 45 5	− 0 29.67	− 1 57.8	0.00—0.1	11 15 42.66	8.7692	− 1 57 19.5	0.7601	*a*	H.
24.	11 40 32	− 0 46.04	− 6 3.4	0.00—0.2	11 15 26.28	8.7011	− 2 1 25.1	0.7601	*a*	H.

COMPARISON STAR.

Mean time.		Star.	α 1868.	Red.	δ 1868.	Red.	Authority.	Comp.	C.—O.
	h. m. s.		h. m. s.	s.	° ′ ″	″			
pril 23.	9 35 26	*a*	11 16 11.05	+ 1.28	− 1 55 10.3	− 11.2	Bessel	11.4	. . . . .
24.	9 26 58	*a*	11 16 11.05	+ 1.27	− 1 55 10.3	− 11.2	. . . .	30.10	. . . . .

SAPPHO (80).

Sidereal time.	Δ α.	Δ δ.	Δ ρ.	α.	l. Δ p.	δ.	l. Δ p.	Star.	Obs.
h. m. s.	m. s.	′ ″	s. ″	h. m. s.		° ′ ″			
Sept. 5. 21 0 18	− 0 52.83	+ 10 30.0	0.00+0.2	22 29 26.14	9.2446n	+ 7 16 51.0	0.6695	a	H.
6. 20 9 58	− 1 32.34	+ 1 9.9	0.00+0.0	22 28 46.63	9.4213n	+ 7 7 30.8	0.6794	a	H.

COMPARISON STAR.

Mean time.	Star.	α 1868.	Red.	δ 1868.	Red.	Authority.	Comp.	C.—O. B. J.	
h. m. s.		h. m. s.	s.	° ′ ″	″			s.	″
Sept. 5. 9 58 21	a	22 30 16.17	+ 2.80	+ 7 6 1.0	+ 19.8	Schjellerup . . .	18.6	− 10.19	− 42.3
6. 9 4 14	a	22 30 16.17	+ 2.80	+ 7 6 1.0	+ 19.9	. . . .	18.6	− 9.96	− 44.0

FREIA (76).

Sidereal time.	Δ α.	Δ δ.	Δ ρ.	α.	l. Δ p.	δ.	l. Δ p.	Star.	Obs.
h. m. s.	m. s.	′ ″	s. ″	h. m. s.		° ′ ″			
Oct. 5. 22 24 27	− 1 29.77	+ 2 27.53	0.00+0.1	0 17 42.41	9.3393n	+ 3 14 16.9	0.7142	a	H.
6. 21 20 26	− 2 8.66	− 2 18.37	0.00−0.1	0 17 3.53	9.5062n	+ 3 9 30.8	0.7196	a	H.

COMPARISON STAR.

Mean time.	Star.	α 1868.	Red.	δ 1868.	Red.	Authority.	Comp.	C.—O. B. J.	
h. m. s.		h. m. s.	s.	° ′ ″	″			s.	″
Oct. 5. 9 24 19	a	0 19 9.25	+ 2.93	+ 3 11 31.0	+ 18.3	Transit Circle, 2 obs.	24.8	+ 0.22	+ 8.3
6. 8 16 33	a	0 19 9.25	+ 2.94	+ 3 11 31.0	+ 18.3	. . . .	17.6	+ 0.78	+ 8.7

LEDA (38).

Sidereal time.	Δ α.	Δ δ.	Δ ρ.	α.	l. Δ p.	δ.	l. Δ p.	Star.	Obs.
h. m. s.	m. s.	′ ″	s. ″	h. m. s.		° ′ ″			
Oct. 12. 22 46 18	− 0 24.73	+ 6 37.9	0.00 + 0.1	2 15 24.65	9.6047n	+ 25 20 53.9	0.5034	a	H.

COMPARISON STAR.

Mean time.	Star.	α 1868.	Red.	δ 1868.	Red.	Authority.	Comp.	C—O.
h. m. s.		h. m. s.	s.	h. m. s.	″			
Oct. 12. 9 18 34	a	2 15 45.94	+ 3.44	+ 25 14 5.4	+ 10.5	Transit Circle, 2 obs.	30.5	. . . . .

DIONE (106).

Sidereal time.		Δ a.	Δ δ.	Δ ρ.	a.	l. Δ p.	δ.	l. Δ p.	Star.	Obs
	h. m. s.	m. s.	′ ″	s. ″	h. m. s.		° ′ ″			
Oct. 17.	23 32 18	− 0 55.06	− 0 42.0	0.00 − 0.0	0 56 1.63	9.2155*n*	+ 0 11 28.4	0.7408	*a*	H.

COMPARISON STAR.

Mean time.		Star.	a 1868.	Red.	δ 1868.	Red.	Authority.	Comp.	C−O.
	h. m. s.		h. m. s.	s.	h. m. s.	″			
Oct. 17	9 44 48	*a*	0 56 53.72	+ 2.97	+ 0 11 52.8	+ 17.6	Transit Circle, 2 obs.	15.5	. . . .

ANGELINA (64).

Sidereal time.		Δ a.	Δ δ.	Δ ρ.	a	l. Δ p.	δ.	l. Δ p.	Star.	Obs
	h. m. s.	m. s.	′ ″	s. ″	h. m. s.		° ′ ″			
Nov. 11.	1 14 56	+ 1 28.66	+ 8 3.0	0.00+0.2	4 31 20.09	9.5799*n*	+ 23 54 40.0	0.5082	*a*	H.
12.	1 18 46	+ 0 37.98	+ 6 23.5	0.00+0.1	4 30 29.42	9.5721*n*	+ 23 53 0.5	0.5027	*a*	H.

COMPARISON STAR.

Mean time.		Star.	a 1868.	Red.	δ 1868..	Red.	Authority.	Comp.	C−O.	B. J.
	h. m. s.		h. m. s.	s.	h. m. s.	″			s.	
Nov. 11	9 48 51	*a*	4 29 47.71	+ 3.72	+ 23 46 36.1	+ 0.7	Transit Circle, 3 obs.	21.7	+ 0.18	− 3.
12	9 48 44	*a*	4 29 47.71	+ 3.73	+ 23 46 36.1	+ 0.8	. . . .	21.7	+ 1.11	− 2.

MIRIAM (102).

Sidereal time.		Δ a.	Δ δ.	Δ ρ.	a.	l. Δ p.	δ.	l. Δ p.	Star.	Obs
	h. m. s.	m. s.	′ ″	s. ″	h. m. s.		° ′ ″			
Oct. 26.	23 39 36	+ 1 32.55	+ 7 46.7	0.00+0.2	0 48 34.52	9.1949*n*	+ 6 41 36.5	0.6754	*a*	H.
Nov. 3.	22 19 29	− 0 7.12	− 7 39.8	0.00−0.2	0 45 46.68	9.4398*n*	+ 5 49 30.3	0.6934	*b*	H.
5.	23 4 57	+ 0 24.32	+ 6 47.3	0.00+0.2	0 45 20.20	9.2922*n*	+ 5 38 48.4	0.6880	*c*	H.
6.	22 44 55	+ 0 13.76	+ 1 8.8	0.00+0.0	0 45 9.64	9.3740*n*	+ 5 33 9.7	0.6928	*c*	H.
11.	22 57 37	+ 0 20.51	− 3 59.4	0.00−0.1	0 44 42.54	9.3178*n*	+ 5 10 29.4	0.6946	*d*	H.
12.	23 57 23	+ 0 20.32	− 7 58.5	0.00−0.2	0 44 42.34	8.9758*n*	+ 5 6 30.2	0.6905	*d*	H.
18.	1 51 20	+ 1 6.11	− 7 4.7	0.00−0.2	0 45 20.03	9.1186	+ 4 48 40.4	0.6948	*e*	H.
Dec. 2.	0 55 37	− 0 30.36	− 0 18.7	0.00−0.0	0 50 48.37	7.9889	+ 4 40 13.2	0.6943	*f*	H.
3.	0 1 2	+ 0 3.89	+ 0 41.9	0.00+0.0	0 51 22.62	9.0018*n*	+ 4 41 13.8	0.6953	*f*	H.

COMPARISON STARS.

Mean time.		Star.	a 1868.	Red.	δ 1868.	Red.	Authority.	Comp.	C−O.
	h. m. s.		h. m. s.	s.	° ′ ″	″			
Oct. 26.	9 16 32	*a*	0 46 58.94	+ 3.03	+ 6 33 32.0	+ 17.6	Wash. obs. 1*a*. 3*δ* . .	24.8	. . . . .
Nov. 3.	7 25 20	*b*	0 45 50.79	+ 3.01	+ 5 56 52.8	+ 17.5	Wash. obs. 3*a*. 1*δ* . .	30.5	. . . .
5.	8 2 49	*c*	0 44 52.89	+ 2.99	+ 5 31 43.5	+ 17.4	Transit Circle, 3 obs. .	20.5	. . . .
6.	7 38 54	*c*	0 44 52.89	+ 2.99	+ 5 31 43.5	+ 17.4	. . . .	24.5	. . . .
11.	7 31 55	*d*	0 44 19.07	+ 2.96	+ 5 15 11.7	+ 17.2	Transit Circle, 1 obs. .	33.5	. . . .
12.	8 27 35	*d*	0 44 19.07	+ 2.95	+ 5 15 11.7	+ 17.2	. . . .	24.5	. . . .
18.	9 57 38	*e*	0 44 11.01	+ 2.91	+ 4 55 28.4	+ 16.9	Bessel	14.5	. . . .
Dec. 2.	8 7 1	*f*	0 51 15.90	+ 2.83	+ 4 40 16.2	+ 15.7	Transit Circle, 3 obs. .	21.5	. . . . .
3.	7 8 39	*f*	0 51 15.90	+ 2.83	+ 4 40 16.2	+ 15.7	. . . .	21.4	. . . . .

HELENA (101).

Sidereal time.		Δ a.	Δ δ.	Δ ρ.	a.	l. Δ p.	δ.	l. Δ p.	Star.	Obs.
	h. m. s.	m. s.	′ ″	s. ″	h. m. s.		° ′ ″			
Nov. 5.	22 27 18	+ 0 0.34	− 8 20.6	0.00−0.3	23 1 44.53	8.8385n	+ 0 22 42.7	0.7391	*a*	H.
6.	21 59 27	+ 0 14.58	− 5 2.2	0.00−0.2	23 1 58.76	9.0935n	+ 0 26 1.1	0.7385	*a*	H.
9.	22 36 14	+ 1 8.78	+ 5 52.9	0.00+0.2	23 2 52.93	8.7448n	+ 0 36 56.5	0.7366	*a*	H.
12.	0 25 46	+ 1 7.47	− 1 41.5	0.00−0.0	23 3 32.81	9.2049	+ 0 48 56.3	0.7351	*b*	H.
13.	22 45 42	+ 1 31.64	+ 2 9.1	0.00+0.1	23 3 56.97	8.5775n	+ 0 52 46.9	0.7340	*b*	H.
14.	23 39 41	+ 2 0.34	+ 6 36.9	0.00+0.2	23 4 25.65	8.8404	+ 0 57 14.8	0.7331	*b*	H.
18.	0 24 52	− 1 21.87	− 11 3.2	0.00−0.3	23 7 1.47	9.1850	+ 1 15 23.3	0.7309	*c*	H.
19.	0 31 42	− 0 46.81	− 6 9.9	0.00−0.2	23 7 36.52	9.2173	+ 1 20 16.7	0.7303	*c*	H.
Dec. 2.	0 5 12	− 1 28.99	+ 1 11.5	0.00+0.0	23 17 8.42	8.9810	+ 2 32 29.1	0.7179	*d*	H.
3.	23 25 24	− 0 37.94	+ 7 15.5	0.00+0.2	23 17 59.45	8.1710	+ 2 38 33.3	0.7159	*d*	H.
9.	0 18 40	− 2 4.68	− 1 17.2	0.00−0.0	23 23 37.92	9.0387	+ 3 18 8.2	0.7099	*e*	H.

COMPARISON STARS.

Mean time.		Star.	a 1868.	Red.	δ 1868.	Red.	Authority.	Comp.	C−O.
	h. m. s.		h. m. s.	s.	° ′ ″	″			
Nov. 5.	7 25 16	*a*	23 1 41.70	+ 2.49	+ 0 30 44.0	+ 19.6	Transit Circle, 2 obs.	12.4	. . . . .
6.	6 53 34	*a*	23 1 41.70	+ 2.48	+ 0 30 44.0	+ 19.5	. . . .	24.6	. . . . .
9.	7 18 27	*a*	23 1 41.70	+ 2.45	+ 0 30 44.0	+ 19.4	. . . .	9.3	. . . . .
12.	8 55 53	*b*	23 2 22.92	+ 2.42	+ 0 50 18.5	+ 19.3	Transit Circle, 2 obs.	12.4	. . . . .
13.	7 12 10	*b*	23 2 22.92	+ 2.41	+ 0 50 18.5	+ 19.2	. . . .	12.4	. . . . .
14.	8 2 4	*b*	23 2 22.92	+ 2.39	+ 0 50 18.5	+ 19.2	. . . .	21.7	. . . . .
18.	8 31 24	*c*	23 8 20.96	+ 2.38	+ 1 26 7.8	+ 19.0	Transit Circle, 2 obs.	9.3	. . . . .
19.	8 34 17	*c*	23 8 20.96	+ 2.37	+ 1 26 7.8	+ 19.0	. . . .	15.4	. . . . .
Dec. 2.	7 16 45	*d*	23 18 35.13	+ 2.28	+ 2 30 59.3	+ 18.3	Schjellerup . . .	21.7	. . . . .
3.	6 33 7	*d*	23 18 35.13	+ 2.26	+ 2 30 59.3	+ 18.3	. . . .	24.5	. . . . .
9.	7 2 39	*e*	23 25 40.36	+ 2.24	+ 3 19 7.4	+ 18.0	Schjellerup . . .	12.4	. . . . .

PROSERPINA (26).

Sidereal time.		Δ a.	Δ δ.	Δ ρ.	a.	l. Δ p.	δ.	l. Δ p.	Star.	Obs.
	h. m. s.	h. s.	′ ″	s. ″	h. m. s.		° ′ ″			
Nov. 23.	1 49 52	+ 0 48.53	+ 3 10.1	0.00+0.1	4 49 6.85	9.5523n	+ 24 41 28.5	0.4739	*a*	H.

COMPARISON STARS.

Mean time.		Star.	a 1868.	Red.	δ 1868.	Red.	Authority.	Comp.	C−O. B. J.	
	h. m. s.		h. m. s.	s.	° ′ ″	″			s.	″
Nov. 23.	9 36 31	*a*	4 48 14.40	+ 3.92	+ 24 38 19.1	− 0.8	Transit Circle, 3 obs.	18.6	+ 1.82	+ 2.3

ARIADNE (43).

Sidereal time.		Δ *a*.	Δ *δ*.	Δ *ρ*.	*a*.	*l*. Δ *p*.	*δ*.	*l*. Δ *p*.	Star.	Obs.
	h. m. s.	m. s.	′ ″	s. ″	h. m. s.		° ′ ″			
Nov. 23.	3 8 1	− 1 57.56	− 0 46.5	0.00−0.0	5 2 15.20	9.3816*n*	+ 24 6 2.2	0.4097	*a*	H.

COMPARISON STAR.

Mean time.		Star.	*a* 1868.	Red.	*δ* 1868.	Red.	Authority.	Comp.	C−O.
	h. m. s.		h. m. s.	s.	° ′ ″	″			
Nov. 23.	10 54 27	*a*	5 4 8.88	+ 3.88	+ 24 6 51.0	− 2.3	Transit Circle, 2 obs.	15.5	. . . . .

UNDINA (92).

Sidereal time.		Δ *a*.	Δ *δ*.	Δ *ρ*.	*a*.	*l*. Δ *p*.	*δ*.	*l*. Δ *p*.	Star.	Obs.
	h. m. s.	m. s.	′ ″	s. ″	h. m. s.		° ′ ″			
Oct. 26.	0 54 6	− 1 2.65	+ 3 40.8	0.00+0.1	3 22 45.38	9.4457*n*	+ 5 47 54.7	0.6959	*a*	H.
28.	23 18 47	− 2 29.22	− 1 13.7	0.00−0.0	3 21 18.84	9.6049*n*	+ 5 43 0.1	0.7127	*a*	H.
Nov. 5.	0 16 33	− 0 1.90	− 1 28.2	0.00−0.0	3 14 58.40	9.5109*n*	+ 5 25 13.7	0.7023	*b*	H.
6.	23 18 57	− 0 48.75	− 3 17.9	0.00−0.1	3 14 11.56	9.5966*n*	+ 5 23 23.9	0.7132	*b*	H.
11.	0 26 18	+ 0 27.33	− 6 2.8	0.00−0.2	3 10 3.44	9.4806*n*	+ 5 15 24.6	0.7011	*c*	H.
12.	0 51 47	− 0 22.75	− 7 21.4	0.00−0.2	3 9 13.37	9.4157*n*	+ 5 14 6.0	0.6975	*c*	H.
13.	0 3 48	− 1 10.02	− 8 32.4	0.00−0.2	3 8 26.11	9.5223*n*	+ 5 12 54.9	0.7049	*c*	H.

COMPARISON STARS.

Mean time.		Star.	*a* 1868.	Red.	*δ* 1868.	Red.	Authority.	Comp.	C−O.*
	h. m. s.		h. m. s.	s.	° ′ ″	s.			s.
Oct. 26.	10 30 59	*a*	3 23 44.90	+ 3.13	+ 5 44 5.8	+ 8.0	Transit Circle, 4 obs.	15.5	+ 38.83+1 46.
28.	8 48 4	*a*	3 23 44.90	+ 3.16	+ 5 44 5.8	+ 8.0	. . . .	24.8	+ 39.18+1 49.1
Nov. 5.	9 14 13	*b*	3 14 57.04	+ 3.26	+ 5 26 33.6	+ 8.3	Transit Circle, 4 obs.	30.5	+ 39.71+1 59.0
6.	8 12 50	*b*	3 14 57.04	+ 3.27	+ 5 26 33.6	+ 8.3	. . . .	21.7	+ 39.71+2 3.3
11.	9 0 21	*c*	3 9 32.80	+ 3.31	+ 5 21 19.2	+ 8.4	Transit Circle, 2 obs.	30.5	+ 39.87+2 4.0
12.	9 21 50	*c*	3 9 32.80	+ 3.32	+ 5 21 19.2	+ 8.4	. . . .	24.5	+ 39.96+2 5.5
13.	8 30 3	*c*	3 9 32.80	+ 3.33	+ 5 21 19.2	+ 8.3	. . . .	21.7	+ 39.91+2 8.1

* Compared with an Ephemeris by Dr. Anderson ; communicated by Professor C. H. F. Peters.

ALEXANDRA (54).

Sidereal time.		Δ *a*.	Δ *δ*.	Δ *ρ*.	*a*.	*l*. Δ *p*.	*a*.	*l*. Δ *p*.	Star.	Obs.
	h. m. s.	m. s.	′ ″	s. ″	h. m. s.		° ′ ″			
Dec. 17.	2 15 1	+ 1 4.07	+ 1 2.5	0.00+0.0	5 25 55.30	9.6257*n*	+ 36 22 38.2	0.2297	*a*	H.
18.	2 18 28	− 0 3.05	− 2 10.6	0.00−0.0	5 24 48.20	9.6175*n*	+ 36 19 25.2	0.2154	*a*	H.

COMPARISON STAR.

Mean time.		Star.	*a* 1868.	Red.	*δ* 1868.	Red.	Authority.	Comp.	C.−O.	B. J.
	h. m. s.		h. m. s.	s.	° ′ ″	″			s.	
Dec. 17.	8 27 14	*a*	5 24 46.53	+ 4.70	+ 36 21 39.4	− 3.7	Transit Circle, 3 obs.	18.6	− 0.76	+ 1.5
18.	8 26 44	*a*	5 24 46.53	+ 4.72	+ 36 21 39.4	− 3.6	. . . .	24.5	− 0.72	+ 0.6

EUGENIA (45).

Sidereal time.		Δ α.	Δ δ.	Δ ρ.	α.	*l.* Δ *p.*	α.	*l.* Δ *p.*	Star.	Obs.
	h. m. s.	m. s.	′ ″	s. ″	h. m. s.		° ′ ″			
Dec. 18.	3 25 41	+ 0 13.81	− 2 13.7	0.00—0.0	5 53 37.35	9.4565*n*	+ 14 47 38.2	0.5951	*a*	H.
19.	2 44 58	− 0 41.96	− 1 24.8	0.00—0.0	5 52 41.59	9.5408*n*	+ 14 48 27.1	0.6169	*a*	H.

COMPARISON STAR.

Mean time.		Star.	α 1868.	Red.	δ 1868.	Red.	Authority.	Comp.	C.—O. B. J.	
	h. m. s.		h. m. s.	s.	° ′ ″	″			s.	″
Dec. 18.	9 33 46	*a*	5 53 19.60	+ 3.94	+ 14 49 58.8	− 6.9	Transit Circle, 2 obs.	16.4	+ 0.37	− 1.2
19.	8 49 13	*a*	5 53 19.60	+ 3.95	+ 14 49 58.8	− 6.9	. . . .	18.5	+ 0.52	− 4.0

ECHO (60).

Sidereal time.		Δ α.	Δ δ.	Δ ρ.	α.	*l.* Δ *p.*	α.	*l.* Δ *p.*	Star.	Obs.
	h. m. s.	m. s.	′ ″	s. ″	h. m. s.		° ′ ″			
Dec. 18.	4 48 39	+ 2 37.26	− 2 42.3	0.00—0.0	6 10 25.33	9.2236*n*	+ 16 25 16.5	0.5409	*a*	H.
19.	3 11 38	+ 1 41.64	− 3 24.0	0.00—0.1	6 9 29.72	9.5260*n*	+ 16 24 34.8	0.5920	*a*	H.

COMPARISON STAR.

Mean time.		Star.	α 1868.	Red.	δ 1868.	Red.	Authority.	Comp.	C.—O. B. J.	
	h. m. s.		h. m. s.	s.	° ′ ″	″			s.	″
Dec. 18.	10 56 31	*a*	6 7 44.10	+ 3.97	+ 16 28 7.0	− 8.2	Transit Circle, 2 obs.	12.4	− 1.32	− 1.3
19.	9 15 48	*a*	6 7 44.10	+ 3.98	+ 16 28 7.0	− 8.2	. . . .	15.5	− 1.30	+ 0.4

OCCULTATIONS OF STARS BY THE MOON, 1868.

Date.	Object.	Phase.	Chron. time.	Corr. Chron.	Mean time.	Obs.	Remarks.
			h. m. s.	m. s.	h. m. s.		
April 28	B. A. C. 2731 . .	Immersion . . .	7 33 10.5	+ 0 12.00	7 33 22.50	H.	Good.
June 24	49 Leonis*	Immersion . . .	15 18 45.0	− 0 47.90	9 3 57.16	H.	
July 1	24 Scorpii†	Immersion . . .	15 31 26.0	− 0 51.40	8 49 1.22	H.	Fair.
Aug. 6	Jupiter's 1st Sat.‡ .	Disappearance . .	12 53 4.±3*s*.	− 4 55.50	12 48 8.5	H.	
Aug. 13	Jupiter's 1st Sat. .	Disappearance . .	14 48 6.5	− 5 16.10	14 42 50.4	H.	Power 132; good seeing.
Sept. 28	64 Aquarii	Immersion . . .	21 34 24.0	− 1 23.00	9 0 32.4	H.	

* The star partially disappeared several seconds before this time.

† The predicted time of emersion apparently wrong in American Ephemeris.

‡ Power 132; good seeing; the Moon near and bright.

NOTE.—The occultation of Aldebaran was observed on May 22, as follows:

h. m. s.
Immersion at 0 3 10.6, Washington m. t. H.

The Moon was not visible in the telescope; the star pretty well seen, but disappearing occasionally. The emersion was not seen, as the clock would not drive the telescope with steadiness; and also light clouds came on at the time of emersion.

RIGHT ASCENSIONS, NORTH POLAR DISTANCES, AND SEMI-DIAMETERS

OF THE

SUN, MOON, AND PLANETS,

DEDUCED FROM

OBSERVATIONS WITH THE TRANSIT CIRCLE,

AND

COMPARED WITH THE TABLES.

1868.

RIGHT ASCENSIONS, NORTH POLAR DISTANCES, AND SEMI-DIAMETERS

OF THE

SUN, MOON, AND PLANETS.

SUN.

Date.	Observer.	Limb.	Apparent Right Ascension of center.	Corr'n to Am. Eph.	Sidereal time of transit of semi-diameter.	Corr'n to Am. Eph.	Limb.	Geocentric N. P. distance of center.	Corr'n to Am. Eph.	Vertical semi-diameter.	Corr'n to Am. Eph.
1868.			h. m. s.	s.	m. s.	s.		° ′ ″	″	′ ″	″
Jan. 30	N.	. .	20 50 27.64	− 0.03	1 8.50	− 0.03	. .	107 42 32.1:	+ 4.8:	16 15.3:	− 1.0
31	N.	. .	20 54 33.74	+ 0.15	1 8.37	− 0.04	. .	107 25 51.7	− 1.5	16 13.9	− 2.3
Feb. 7	A.	. .	21 22 51.62	+ 0.17	1 7.54	− 0.07	. .	105 21 39.8	− 0.2	16 12.7	− 2.4
8	Ha.	. .	21 26 50.71	0.00	1 7.33	− 0.16	. .	105 2 45.3	− 4.4	16 16.0	+ 1.1
11	A.	. .	21 38 43.92	+ 0.20	1 7.20	+ 0.04	. .	. . . .	. .	. . .	. .
12	Ha.	. .	21 42 40.00	+ 0.11	1 6.92	− 0.13	. .	. . . .	. .	. . .	. .
13	E.	. .	21 46 35.06	− 0.22	1 6.93	− 0.01	. .	103 24 58.6	+ 0.3	16 15.0	+ 1.0
14	A.	. .	21 50 30.00	+ 0.06	1 6.74	− 0.09	. .	. . . .	. .	. . .	. .
15	E.	. .	21 54 23.73	− 0.15	1 6.73	+ 0.01	. .	102 44 17.0	+ 2.3	16 14.4	+ 0.8
18	A.	. .	22 6 1.38	− 0.07	1 6.30	− 0.12	. .	101 41 35.7	− 2.0	16 13.5	+ 0.6
19	Ha.	. .	22 9 52.58	− 0.03	1 6.21	− 0.11	. .	101 20 21.5	− 1.2	16 11.6	− 1.1
20	E.	. .	22 13 43.11	0.00	1 6.28	+ 0.06	. .	100 58 54.9	− 2.1	16 11.5	− 1.0
22	N.	. .	. . . .	. .	. . .	. .	. .	100 15 37.6	+ 2.5	16 9.6	− 2.4
Mar. 10	A.	. .	23 22 53.88	− 0.02	1 4.78	− 0.05	. .	. . . .	. .	. . .	. .
18	Ha.	. .	23 54 9.72	+ 0.04	1 4.56	+ 0.01	. .	90 37 57.7	− 1.3	16 5.2	− 0.5
19	E.	. .	23 57 48.28	− 0.02	1 4.56	+ 0.03	. .	. . . .	. .	. . .	. .
23	A.	. .	0 12 21.77	+ 0.04	1 4.45	− 0.02	S.	88 39 34.4	− 1.9	. . .	. .
31	A.	. .	0 41 27.07	+ 0.06	1 4.45	− 0.04	. .	85 32 14.4	− 1.5	16 1.9	− 0.2
April 1	Ha.	. .	0 45 4.15	− 1.22r	1 4.43	− 0.08	S.	85 9 6.7	− 2.5	. . .	. .
4	N.	. .	0 56 1.18	+ 0.04	1 4.54	− 0.05	. .	84 0 22.5	+ 0.4	15 58.6	− 2.4
6	N.	. .	1 3 19.12	+ 0.02	1 4.56	− 0.09	. .	83 15 1.5	+ 0.1	15 58.0	− 2.5
8	N.	. .	1 10 37.95	+ 0.01	1 4.69	− 0.02	. .	82 30 9.3	+ 0.8	15 58.6	− 1.4
18	N.	. .	1 47 30.54	− 0.02	1 5.10	− 0.10	. .	78 54 10.5	+ 0.4	15 56.7	− 0.5
23	E.	. .	2 6 11.84	+ 0.12	1 5.48	− 0.05	. .	77 12 36.7	− 0.8	15 56.5	+ 0.6
24	A.	. .	2 9 57.29	− 0.02	1 5.54	− 0.06	. .	76 52 54.9	− 0.4	15 56.4	+ 0.7
27	N.	. .	2 21 17.16	+ 0.21	1 5.68	− 0.13	. .	75 55 7.3	− 0.1	15 52.7	− 2.3
28	E.	. .	2 25 4.40	− 0.08	1 5.85	− 0.04	. .	75 36 18.4	− 0.4	15 54.8	+ 0.1
30	N.	. .	2 32 41.12	+ 0.06	1 5.93	− 0.11	. .	74 59 24.5	− 0.5	15 52.6	− 1.6
May 1	N.	. .	2 36 30.22	+ 0.10	1 6.02	− 0.10	. .	74 41 20.4	+ 0.2	15 52.2	− 1.8
2	E.	. .	2 40 19.80	+ 0.09	1 6.14	− 0.06	. .	74 23 30.3	− 0.3	15 53.2	− 0.6
9	E.	II.	3 6 22.04	− 0.27	. . .	. .	. .	72 26 14.8	− 0.5	15 51.4	− 0.8
11	N.	. .	3 15 11.14	+ 0.06	1 6.78	− 0.16	. .	71 55 18.1	− 0.9	15 50.4	− 1.4
12	A.	. .	3 19 6.32	− 0.04	1 6.90	− 0.12	. .	71 40 17.7	− 0.1	15 48.9	− 2.7
14	N.	. .	3 26 58.80	+ 0.10	1 7.05	− 0.13	N.	71 11 10.4	− 0.4	. . .	. .
18	N.	. .	3 42 50.52	+ 0.09	1 7.34	− 0.16	. .	70 16 47.6	+ 0.7	15 48.2	− 2.2
21	N.	. .	3 54 50.18	+ 0.02	1 7.60	− 0.13	. .	69 37 27.4	− 0.8	15 47.5	− 2.4
22	A.	. .	3 58 51.08	− 0.08	1 7.68	− 0.12	. .	69 27 45.2	+ 1.9	15 49.9	+ 0.2
25	N.	. .	4 10 57.29	+ 0.07	1 7.90	− 0.12	. .	68 54 36.3	+ 0.1	15 46.9	− 2.3
26	A.	. .	4 15 0.15	− 0.06	1 8.07	− 0.02	. .	68 44 16.8	− 0.3	15 49.1	0.0
27	E.	. .	4 19 4.74	+ 0.09	1 8.12	− 0.03	. .	68 34 20.3	+ 0.3	15 48.8	− 0.1
29	A.	. .	4 27 11.99	+ 0.11	1 8.16	− 0.11	. .	68 15 35.0	+ 2.2	15 47.8	− 0.8
June 1	N.	. .	4 39 27.42	+ 0.09	1 8.38	− 0.07	. .	67 50 13.2	+ 0.7	15 47.1	− 1.1
4	N.	. .	4 51 46.14	− 0.02	1 8.54	− 0.06	. .	67 28 20.5	− 0.2	15 45.3	− 2.5
6	T.	. .	5 0 0.46	+ 0.04	1 8.60	− 0.09	. .	67 15 45.0	+ 0.6	15 47.0	− 0.6
8	N.	. .	5 8 16.01	+ 0.13	1 8.71	− 0.07	. .	67 4 43.2	− 0.4	15 45.2	− 2.2
9	E.	II.	5 12 23.98	− 0.05	. . .	. .	. .	. . . .	. .	. . .	. .
12	E.	. .	5 24 49.92	− 0.01r	1 8.84r	− 0.05	. .	66 47 40.8r	+ 8.6r	15 46.8r	− 0.2
15	N.	. .	5 37 17.62	+ 0.12	1 8.90	− 0.04	. .	. . . .	. .	. . .	. .
18	N.	. .	5 49 46.26	+ 0.08	1 8.88	− 0.09	. .	66 34 0.4	− 0.5	15 44.6	− 1.9
19	E.	. .	5 53 55.88	+ 0.03	1 8.89	− 0.08	. .	66 33 11.6	− 0.7	15 46.2	− 0.3
20	T.	. .	5 58 5.57	+ 0.05	1 8.90	− 0.07	. .	66 32 49.8	+ 1.3	15 46.7	+ 0.3
22	N.	. .	6 6 24.93	+ 0.14	1 8.88	− 0.09	. .	66 33 14.1	− 1.0	15 44.2	− 2.8
23	E.	. .	6 10 34.38	+ 0.05	1 8.92	− 0.04	. .	66 34 7.2	+ 1.5	15 47.0	− 0.7
24	T.	. .	6 14 43.79	+ 0.01	1 8.98	+ 0.03	. .	. . . .	. .	. . .	. .
26	E.	. .	. . . .	. .	. . .	. .	. .	66 39 7.8	+ 2.3	15 46.5	+ 0.3
29	N.	. .	6 35 28.64	+ 0.05	1 8.76	− 0.06	. .	66 47 45.0	− 2.0	15 45.5	− 0.6

SUN.

Date.	Observer.	Limb.	Apparent Right Ascension of center.	Corr'n to Am. Eph.	Sidereal time of transit of semi-diameter.	Corr'n to Am. Eph.	Limb.	Geocentric N. P. distance of center.	Corr'n to Am. Eph.	Vertical semi-diameter.	Corr'n Am. Eph.
1868.			h. m. s.	s.	m. s.	s.		° ′ ″	″	′ ″	
July 1	T.	. .	6 43 45.00	+ 0.04	1 8.72	− 0.04	. .	66 55 36.2	− 0.4	15 45.0	− [illegible]
2	N.	. .	6 47 52.81	+ 0.07	1 8.62	− 0.10	. .	67 0 7.8	0.0	15 44.0	− [illegible]
3	E.	II.	6 52 0.34	+ 0.13	. . .	. .	. .	67 5 3.3	+ 0.2	15 44.3	− [illegible]
4	T.	. .	6 56 7.39	+ 0.02	1 8.60	− 0.04	. .	. . . .	. .	. . .	.
6	N.	. .	7 4 20.44:	− 0.26:	1 8.49	− 0.05	. .	67 22 11.4	− 0.6	15 44.2	− [illegible]
7	E.	. .	7 8 26.81	0.00	1 8.52	+ 0.03	. .	67 28 43.1	+ 0.8	15 44.7	− [illegible]
11	T.	. .	7 24 47.36	− 0.04	1 8.23	− 0.02	. .	67 58 37.2	+ 1.8	15 45.7	− [illegible]
13	N.	. .	7 32 55.17	+ 0.02	1 7.98	− 0.13	. .	68 15 47.0	− 1.9	15 44.6	− [illegible]
14	E.	. .	7 36 58.41	+ 0.07	1 8.00	− 0.04	. .	68 24 58.4	− 0.9	15 46.0	− [illegible]
15	T.	. .	7 41 1.19	+ 9.14	1 7.89	− 0.08	. .	68 34 32.4	+ 0.8	15 45.9	− [illegible]
16	N.	. .	7 45 3.20	− 0.06	1 7.85	− 0.05	. .	68 44 25.7	0.0	15 44.8	− [illegible]
17	E.	. .	7 49 5.14	+ 0.17	1 7.84	+ 0.02	. .	68 54 44.2	+ 2.4	15 48.8	+ [illegible]
18	T.	. .	7 53 6.22	+ 0.06	1 7.72	− 0.03	. .	69 5 18.9	− 0.2	15 46.3	− [illegible]
21	E.	. .	. . . .	. .	. . .	. .	S.	69 39 18.3	+ 0.9	. . .	. .
22	T.	I.	8 9 5.58:	+ 0.20	. . .	. .	. .	. . . .	. .	. . .	.
23	N.	. .	8 13 3.85	+ 0.10	1 7.25	− 0.10	. .	70 3 39.1	+ 0.1	15 45.2	− [illegible]
28	E.	II.	8 32 46.67	+ 0.20	. . .	. .	S.	69 39 18.3	+ 0.9	. . .	. .
Aug. 5	T.	. .	9 3 46.96	+ 0.18	1 6.14	− 0.11	S.	73 12 47.8	+ 4.1	. . .	.
6	F.	II.	9 7 36.59	− 0.02	. . .	. .	. .	. . . .	. .	. . .	. .
12	T.	. .	9 30 23.72	+ 0.01	1 5.62	− 0.03	. .	75 14 13.0	+ 0.3	15 49.5	− [illegible]
13	F.	I.	9 34 10.20	+ 0.55*r*	. . .	. .	. .	75 32 29.2	− 4.0	15 49.1	− [illegible]
14	E.	. .	9 37 54.94	− 0.12	1 5.55	+ 0.06	N.	75 51 19.1	+ 11.5*r*	. . .	.
15	T.	. .	9 41 39.96	+ 0.01	1 5.32	− 0.09	. .	76 9 58.1	+ 2.5	15 51.6	− [illegible]
17	F.	. .	9 49 8.44	+ 0.24	1 5.30	+ 0.05	. .	76 18 8.5	− 2.5	15 55.4:	− [illegible]
18	E.	. .	9 52 51.72	+ 0.15	1 5.08	− 0.10	. .	77 7 38.4	+ 0.7	15 51.8	+
27	F.	II.	10 26 0.96	− 0.02	. . .	. .	. .	. . . .	. .	. . .	.
29	T.	. .	10 33 18.62	+ 0.14	1 4.42	− 0.11	N.	80 53 48.3	+ 0.1	. . .	.
Sept. 5	T.	. .	10 58 39.90	− 0.03	1 4.18	− 0.05	. .	83 27 19.5	+ 1.1	15 54.7	− [illegible]
7	F.	. .	. . . .	. .	. . .	. .	. .	84 12 15.3	+ 2.1	15 56.7	+ [illegible]
8	Ha.	. .	11 9 28.36	− 0.17	1 4.14	− 0.01	. .	84 34 49.9	+ 0.3	15 55.0	− [illegible]
10	F.	II.	11 16 40.22	+ 0.02	. . .	. .	. .	. . . .	. .	. . .	.
11	F.	. .	11 20 15.87	0.00	1 4.10	+ 0.01	N.	85 43 10.5	0.0	. . .	.
12	T.	. .	11 23 51.44	− 0.02	1 4.03	− 0.05	. .	86 6 8.5	+ 1.3	15 55.6	− [illegible]
18	T.	. .	11 45 24.28	+ 0.10	1 4.02	− 0.04	. .	88 25 5.2	+ 0.6	15 58.3	+ [illegible]
19	F.	. .	11 48 59.74	+ 0.10	1 4.08	+ 0.01	. .	88 48 25.4	+ 1.6	15 56.5	− [illegible]
21	T.	I.	11 56 10.79	+ 0.04	. . .	. .	. .	. . . .	. .	. . .	. .
25	F.	. .	. . . .	. .	. . .	. .	S.	91 8 41.5	− 2.8	. . .	.
28	F.	II.	12 21 23.50	+ 0.14	. . .	. .	. .	92 18 57.0	+ 1.9	16 0.4	− [illegible]
Oct. 1	T.	. .	12 32 14.66	− 0.02	1 4.39	0.00	. .	93 28 56.4	+ 2.2	16 3.2	+ [illegible]
6	F.	. .	12 50 26.54	− 0.11	1 4.62	− 0.04	. .	95 24 42.4	+ 1.5	16 2.4	− [illegible]
7	T.	. .	12 54 6.22	0.00	1 4.66	− 0.06	. .	95 47 40.4	+ 0.9	16 3.8	− [illegible]
9	F.	. .	13 1 26.49	− 0.21*r*	1 5.07	+ 0.21*r*	. .	96 33 26.6	+ 3.5	16 5.9	− [illegible]
12	N.	. .	13 12 31.14	+ 0.03	1 4.98	− 0.09	. .	97 41 21.6	+ 2.5	16 3.3	− [illegible]
13	F.	. .	13 16 13.54	− 0.07	1 5.12	− 0.03	. .	98 3 48.3	+ 2.7	16 3.0	− [illegible]
17	T.	. .	13 31 9.34	+ 0.06	1 5.49	0.00	. .	99 32 22.6	+ 1.2	16 6.8	− [illegible]
19	E.	. .	13 38 40.69	− 0.01	1 5.69	+ 0.02	. .	100 15 52.6	+ 1.7	16 7.0	− [illegible]
23	F.	II.	13 53 51.13	− 0.06	. . .	. .	. .	101 41 0.2	+ 2.3	16 8.5	− [illegible]
24	T.	. .	13 57 40.54	+ 0.05	1 6.11	− 0.05	. .	102 1 47.3	− 1.6	16 7.4	− [illegible]
26	E.	II.	14 5 21.24	+ 0.02	. . .	. .	N.	102 42 56.4	− 0.5	. . .	.
28	T.	. .	14 13 4.78	− 0.08	1 6.64	+ 0.05	. .	103 23 19.6	+ 2.4	16 11.1	− [illegible]
29	E.	. .	14 16 57.71	− 0.09	1 6.81	+ 0.11	. .	103 43 10.6	+ 2.2	16 10.6	− [illegible]
30	F.	II.	14 20 51.53	+ 0.02	. . .	. .	. .	104 2 46.4	− 0.1	16 10.2	− [illegible]
Nov. 3	E.	. .	14 36 34.30	− 0.07	1 7.30	+ 0.03	. .	105 19 3.2	+ 3.0	16 11.1	+ [illegible]
4	T.	. .	14 40 32.18	+ 0.03	1 7.28	− 0.11	. .	105 37 25.1	− 1.8	16 9.1	− [illegible]
7	T.	. .	14 52 30.57	− 0.04	1 7.70	− 0.05	. .	106 31 14.0	+ 1.0	16 12.1	+ [illegible]
10	E.	. .	15 4 36.81	− 0.02	1 7.96	− 0.15	. .	107 22 29.4	+ 0.1	16 9.5	− [illegible]
11	T.	. .	15 8 40.60	− 0.04	1 8.22	− 0.01	. .	107 39 1.4:	+ 2.0	16 13.2	+ [illegible]
12	N.	. .	15 12 45.34	+ 0.03	1 8.30	− 0.05	. .	107 55 12.7	+ 1.3	16 10.2	− [illegible]
13	E.	. .	15 16 50.84	0.00	1 8.42	− 0.05	. .	108 11 4.8	0.0	16 14.4	− [illegible]
14	T.	. .	15 20 57.28	+ 0.06	1 8.46	− 0.14	. .	108 26 37.5	− 1.6	16 11.6	− [illegible]
18	T.	. .	15 37 31.28	+ 0.10	1 9.04	+ 0.01	. .	109 25 36.9	+ 0.2	16 14.6	+ [illegible]
19	N.	. .	15 41 41.74	+ 0.01	1 9.02	− 0.13	. .	109 39 29.2	− 0.2	16 12.9	− [illegible]
23	N.	. .	15 58 31.78	+ 0.06	1 9.58	− 0.01	. .	110 31 24.5	+ 2.7	16 13.6	− [illegible]
28	T.	. .	16 18 51.05	− 0.04	1 10.08	− 0.02	. .	111 27 35.9	+ 1.2	16 14.6	− [illegible]
Dec. 2	F.	. .	16 37 7.08	+ 0.11	1 10.40	− 0.06	. .	112 5 15.2	+ 1.1	16 14.1	− [illegible]
3	N.	. .	16 41 27.64	+ 0.11	1 10.43	− 0.11	. .	112 13 36.9	+ 1.2	16 13.1	− [illegible]
9	T.	. .	17 7 42.48	− 0.08	1 11.02	+ 0.08	. .	112 54 36.6	+ 2.0	16 17.8	+ [illegible]
10	N.	. .	17 12 7.04	+ 0.28	1 10.99	0.00	. .	112 59 51.7	+ 1.1	16 15.7	− [illegible]
12	T.	. .	17 20 56.49	− 0.13	1 11.02	− 0.07	. .	113 9 2.4	+ 1.7	16 18.4	+ [illegible]
18	F.	. .	17 47 31.91	+ 0.05	1 11.35	+ 0.11	. .	113 25 24.8	+ 1.2	16 15.7	− [illegible]
19	T.	. .	17 51 58.54	+ 0.11	1 11.18	− 0.10	. .	113 26 28.3	− 0.7	16 19.1	+ [illegible]
21	N.	. .	18 0 51.56	− 0.05	1 11.27	− 0.03	. .	113 27 16.2	+ 1.4	16 15.6	− [illegible]
22	F.	. .	18 5 18.30	+ 0.06	1 11.32	+ 0.02	. .	113 26 54.8	− 0.5	16 15.9	− [illegible]
23	T.	. .	18 9 44.97	+ 0.14	1 11.30	0.00	. .	113 26 8.3	+ 0.9	16 18.8	+ [illegible]

MOON.

Date.	Mean time of transit of center.	Observer.	Limb.	Apparent Right Ascension of center.	Correction to tables of—		Limb.	Geocentric North Polar distance of center.	Correction to tables of—	
					Peirce.	Hansen.			Peirce.	Hansen.
1868.	h. m. s.			h. m. s.	s.	s.		° ′ ″	″	
Oct. 1	12 11 40.3	T.	II.	0 56 29.96	− 0.22	− 0.44	S.	88 8 12.8	+ 9.2	+ 4.5
5	15 22 6.6	N.	II.	4 23 13.59	+ 0.11	− 0.37	N.	73 29 45.4	+ 3.2	+ 2.5
8	18 7 46.9	N.	II.	7 21 10.89	+ 0.15	− 0.77	N.	70 52 13.3	+ 0.1	+ 0.1
22	5 38 42.9	N.	I.	19 45 15.60	− 0.34	− 0.17	S.	108 45 49.9	+ 7.2	+ 2.5
23	6 26 2.5	F.	I.	20 36 39.53	− 0.38	− 0.23	S.	107 6 19.9	+ 7.8	+ 3.5
24	7 11 49.6	T.	I.	21 26 30.67	− 0.28	− 0.10	S.	104 40 47.9	+ 6.4	+ 2.5
26	8 39 58.6	E.	I.	23 2 47.31	− 0.43	− 0.30	S.	98 1 17.5	+ 4.0	+ 1.2
28	10 6 59.8	T.	I.	0 37 55.85	− 0.27	− 0.27	S.	89 49 18.7	− 5.9	− 7.5
29	10 51 38.6	E.	I.	1 26 38.69	− 0.45	− 0.56	S.	85 31 26.2	+ 5.7	+ 4.1
30	11 37 55.6	F.	I.	2 17 0.13	− 0.11	− 0.24	S.	81 20 11.4	+ 6.5	+ 4.6
Nov. 2	14 10 57.3	N.	II.	5 2 16.73	− 0.19	− 0.33	S.	71 49 22.9	+ 0.6	− 0.2
5	17 0 36.1	N.	II.	8 4 13.62	+ 0.42	− 0.43	S.	71 36 14.7	− 1.8	− 2.9
6	17 56 52.5	E.	II.	9 4 34.73	+ 0.58	− 0.36	S.	74 1 16.6	+ 18.9	+ 16.2
18	3 30 0.4	T.	I.	19 22 38.87	− 0.41	− 0.23	S.	109 27 38.3	+ 3.5	− 0.2
19	4 18 44.3	N.	I.	20 15 27.81	− 0.27	− 0.11	S.	108 9 38.4	+ 5.8	+ [illegible]
21	5 50 43.1	T.	I.	21 55 34.41	− 0.37	− 0.16	S.	103 11 25.3	− 22.5	− 26.4
23	7 17 33.2	N.	I.	23 30 31.91	− 0.44	− 0.16	S.	95 58 34.9	+ 2.4	− 0.7
26	. . . .	F.	.	. . . .	. .	. .	S.	83 15 3.1	+ 4.6	+ 3.2
27	10 17 9.4	T.	I.	2 46 23.77	− 0.35	− 0.31	S.	79 9 22.8	+ 3.0	+ 2.5
30	12 57 34.2	F.	II.	5 39 4.59	− 0.27	− 0.38	S.	70 44 5.8	+ 8.4	+ 5.4
Dec. 1	13 55 52.0	T.	II.	6 41 28.51	− 0.25	− 0.46	S.	70 6 41.7	+ 1.5	+ 1.9
2	14 54 40.6	F.	II.	7 44 23.42	+ 0.10	− 0.28	S.	70 51 15.0	+ 1.7	+ 3.5
5	17 42 23.2	T.	II.	10 44 23.17	+ 0.27	− 0.49	S.	80 8 16.6	+ 5.5	+ 1.6
8	20 14 23.0	T.	II.	13 28 37.67	+ 0.21	− 0.13	.	. . . .	. .	. .
17	2 58 42.4	N.	I.	20 45 35.86	− 0.13	0.00	.	. . . .	. .	. .
18	3 44 50.8	F.	I.	21 35 48.50	− 0.17	− 0.03	S.	104 39 50.2	+ 0.4	− 3.0
19	4 29 13.4	T.	I.	22 24 14.89	− 0.29	− 0.17	S.	102 9 27.1	+ 2.9	+ 4.4
21	5 54 45.5	N.	I.	23 57 54.19	− 0.17	+ 0.02	S.	93 51 31.5	+ 3.0	− 0.1
22	6 37 20.8	F.	I.	0 44 33.00	− 0.71	− 0.42	S.	89 39 49.7	+ 2.9	0.0
23	7 20 57.5	T.	I.	1 32 13.47	− 0.38	+ 0.01	S.	85 23 48.4	+ 3.6	+ 0.5
24	8 6 28.3	N.	I.	2 21 48.25	− 0.37	+ 0.03	S.	81 13 11.6	+ 3.2	+ 0.5
25	8 54 54.0	F.	I.	3 14 8.50	− 0.35	− 0.07	S.	77 20 18.2	+ 4.7	+ 2.6
26	9 46 24.2	T.	I.	4 9 53.74	− 0.15	− 0.04	S.	74 0 26.9	+ 1.1	− 0.5

VENUS.

Date.		Observer.	Part observed.	Appa'nt Right Ascension of center.	Corr'n to Am. Eph.	Corr'n to Le Verrier's tables.	Sid. time of transit of semi-diam.	Corr'n to Am. Eph.	Part observed.	Geocentric N. P. distance of center.	Corr'n to Am. Eph.	Corr'n to Le Verrier's tables.	Vertical semi-diam.	
1868.				h. m. s.	s.	s.	s.	s.		° ′ ″	″	″	″	
Jan.	30	N.	.	22 51 4.81	+ 0.01	− 0.03	0.41	− 0.01	C.	98 49 49.9	+ 3.7	+ 4.1	. .	
	31	N.	.	22 55 38.61	+ 0.07	+ 0.03	0.39	− 0.03	. .	98 20 2.5	− 3.0	− 2.5	8.6	+
Feb.	11	A.	I.	23 44 56.30	+ 0.09	+ 0.08	. .	. .	. .	92 42 35.6	− 0.3	+ 0.5	5.4	−
	12	Ha.	I.	23 49 21.32	+ 0.08	+ 0.08	. .	. .	. .	99 11 13.7	− 0.7	+ 0.1	7.3	+
	13	E.	I.	23 53 45.58	− 0.21	− 0.22	. .	. .	S.	91 39 49.2	− 0.1	+ 0.7	. .	
	15	E.	I.	0 2 33.61	− 0.06	− 0.05	. .	. .	. .	90 36 49.7	− 1.4	− 0.7	8.9	−
	19	Ha.	I,	0 20 6.60	− 0.10	− 0.09	. .	. .	. .	88 30 44.2	+ 1.0	+ 1.7	6.8	+
	22	N.	.	0 33 12.64	− 0.03	+ 0.02	0.43	− 0.03	. .	86 56 20.0	− 0.1	+ 0.7	6.9	+
Mar.	18	Ha.	I.	2 23 25.04	− 0.09	+ 0.01	. .	. .	. .	74 41 38.4	− 2.2	− 1.4	8.0	+
	19	E.	I.	2 27 55.12	− 0.02	+ 0.08	. .	. .	. .	74 15 41.2	− 0.2	+ 0.7	7.6	−
	31	A.	I.	3 22 42.73	− 0.10	+ 0.02	. .	. .	. .	69 35 12.7	− 1.9	− 1.1	7.8	−
April	4	N.	I.	3 41 16.06	− 0.16	− 0.06	. .	. .	. .	68 16 30.9	− 1.3	− 0.4	9.1	+
	6	N.	.	3 50 35.14	− 0.23	− 0.13	0.59	− 0.06	. .	67 40 16.7	− 1.7	− 0.7	8.7	−
	8	N.	.	3 59 55.67	− 0.18	− 0.05	0.62	− 0.04	. .	67 6 13.9	+ 0.2	+ 1.2	9.4	−
	17	N.	.	4 42 4.95	0.00	+ 0.12	0.81	+ 0.08	. .	65 1 5.8	− 0.3	+ 0.7	10.3	−
	18	N.	.	4 46 45.53	− 0.07	+ 0.04	0.71	− 0.01	. .	64 50 7.5	− 1.7	− 0.7	9.5	−
	23	E.	I.	5 10 2.81	− 0.03	+ 0.13	. .	. .	. .	. . . .	. .	. .	. .	
	27	N.	I.	5 28 28.39	+ 0.05	+ 0.15	. .	. .	. .	63 39 2.2	− 1.0	− 0.7	10.4	−
	30	N.	I.	5 42 6.28	− 0.13	− 0.06	. .	. .	. .	63 26 22.2	+ 0.3	+ 1.0	11.1	
May	1	N.	I.	5 46 36.40	− 0.05	+ 0.01	. .	. .	. .	63 23 19.9	− 0.8	− 0.2	11.4	+
	11	N.	I.	6 29 57.18	− 0.15	− 0.08	. .	. .	. .	63 25 13.9	− 0.2	− 0.2	13.1	−
	18	N.	I.	6 37 52.80	− 0.03	+ 0.04	. .	. .	. .	63 58 35.3	+ 0.5	+ 0.5	14.1	+
	22	A.	.	. . . .	. .	. .			. .	64 27 51.8	− 0.4	− 0.8	14.5	
	26	A.	I.	7 26 33.50	− 0.10	− 0.11	. .	. .	. .	65 3 35.9	+ 2.5	+ 2.1	15.0	−
	27	E.	I.	7 29 38.83	− 0.10	− 0.14	. .	. .	. .	65 13 23.8	+ 2.3	+ 1.5	15.1	−
	30	E.	I.	7 38 56.61	− 0.02	− 0.09	. .	. .	. .	. . . .	. .	. .	. .	
June	1	N.	I.	7 44 43.17	− 0.06	− 0.11	. .	. .	. .	66 6 55.3	+ 2.0	+ 0.7	16.8	+
	4	N.	I.	7 52 41.89	− 0.02	− 0.08	. .	. .	. .	66 41 59.7	− 0.1	− 1.7	17.3	−
	5	E.	I.	7 55 9.84	+ 0.03	− 0.06	. .	. .	. .	66 54 8.4	+ 2.9	+ 1.2	17.1	−
	6	T.	I.	7 57 31.48	− 0.11	− 0.23	. .	. .	. .	67 6 23.7	+ 2.6	+ 0.6	18.2	−
	12	E.	I.	8 9 23.16	0.00	− 0.18	. .	. .	. .	68 22 24.6	+ 3.7	+ 1.4	19.3	−
	13	T.	I.	8 10 56.67	− 0.07	− 0.23	. .	. .	. .	68 35 20.0	+ 5.7	+ 3.4	21.8	+
	15	N.	I.	8 13 40.77	+ 0.08	− 0.07	. .	. .	. .	69 1 6.6	+ 4.4	+ 2.0	21.0	+
	19	E.	I.	8 17 29.68	− 0.07	− 0.22	. .	. .	N.	69 52 13.1	+ 4.7	+ 1.7	. .	
	20	T.	I.	8 18 5.31	+ 0.11	− 0.07	. .	. .	N.	70 4 47.3	+ 5.4	+ 2.1	. .	
	22	N.	I.	8 15 48.67	+ 0.15	− 0.11	. .	. .	. .	70 29 30.9	+ 5.9	+ 2.3	23.6	+
	23	E.	I.	8 18 56.04	− 0.01	− 0.29	. .	. .	N.	70 41 39.2	+ 7.0	+ 3.2	. .	
	24	T.	I.	8 19 53.91	− 0.04	− 0.33	. .	. .	N.	70 53 35.5	+ 6.9	+ 2.8	. .	
	29	N.	I.	8 16 15.18	+ 0.15	− 0.02	. .	. .	N.	71 49 53.7	+ 5.6	+ 1.2	. .	
July	1	T.	I.	8 14 1.97	+ 0.14	− 0.11	. .	. .	N.	72 10 33.1	+ 5.5	+ 0.9	. .	
	2	N.	I.	8 12 40.85	+ 0.13	− 0.11	. .	. .	N.	72 20 26.4	+ 6.2	+ 1.5	. .	
	3	E.	I.	8 11 10.34	+ 0.11	− 0.14	. .	. .	N.	72 30 0.8	+ 7.1	+ 2.3	. .	
	4	T.	I.	8 9 30.69	+ 0.04	− 0.24	. .	. .	N.	72 39 12.0	+ 4.8	0.0	. .	
	7	E.	I.	8 3 41.64	+ 0.07	− 0.27	. .	. .	N.	73 4 48.5	+ 6.5	+ 1.7	. .	
	22	N.	II.	7 23 41.54	+ 0.11	− 0.20	. .	. .	N.	74 22 21.2	+ 4.5	+ 0.3	. .	
Aug.	12	F.	II.	7 9 36.64	− 0.10	+ 0.02	. .	. .	. .	73 51 46.9	+ 1.4	+ 0.6	24.6	+
	13	E.	II.	7 10 39.21	− 0.07	+ 0.03	. .	. .	. .	73 48 46.4	+ 2.0	+ 1.2	22.5	+
	14	T.	II.	7 11 49.92	− 0.10	− 0.02	. .	. .	. .	73 45 49.7	+ 4.2	+ 3.5	22.4	−
	17	E.	II.	7 16 8.90	+ 0.07	+ 0.06	. .	. .	. .	73 37 17.9	+ 1.9	+ 1.5	20.5	−
	21	T.	II.	7 23 33.39	− 0.08	− 0.07	. .	. .	S.	73 27 49.1	+ 1.0	+ 1.0	. .	
Sept.	4	T.	II.	8 1 10.02	− 0.01	− 0.07	. .	. .	S.	73 27 17.7	− 1.2	− 0.1	. .	
	16	F.	II.	8 43 16.82	+ 0.29	+ 0.13	. .	. .	S.	74 27 18.8	+ 0.2	+ 1.3	. .	
	17	T.	II.	8 47 3.09	+ 0.10	− 0.05	. .	. .	S.	74 35 17.2	+ 1.0	+ 2.3	. .	
	18	F.	II.	8 50 51.54	+ 0.19	+ 0.06	. .	. .	S.	74 43 41.1	− 0.8	+ 0.6	. .	
	30	T.	II.	9 38 28.86	+ 0.14	− 0.03	. .	. .	S.	77 1 30.7	+ 0.4	+ 2.0	. .	
Oct.	5	F.	II.	9 55 5.54	+ 0.09	− 0.10	. .	. .	S.	78 18 21.5	. .	. .	. .	
	7	N.	.	10 7 25.47	+ 0.20	0.00	0.68	− 0.05	. .	78 52 8.2	− 0.7	+ 0.5	10.4	−
	8	F.	II.	10 11 36.25	+ 0.15	− 0.07	. .	. .	S.	79 9 41.0	+ 1.6	+ 2.7	. .	
	11	N.	.	10 24 12.15	+ 0.30	+ 0.05	0.61	− 0.09	. .	80 4 37.1	+ 1.6	+ 2.4	10.2	−
	12	F.	II.	10 28 24.85	+ 0.16	− 0.09	. .	. .	S.	80 23 42.3	+ 1.4	+ 2.2	. .	
	18	E.	II.	10 53 50.27	+ 0.26	+ 0.02	. .	. .	S.	82 25 47.7	+ 0.4	+ 1.1	. .	
	20	F.	.	. . . .	. .	. .	. .	. .	S.	82 47 23.5	+ 4.6	+ 5.2	. .	
	22	F.	II.	11 10 53.35	+ 0.22	− 0.02	. .	. .	S.	83 53 42.4	− 1.1	− 0.7	. .	
	23	T.	II.	11 15 9.76	+ 0.14	− 0.09	. .	. .	S.	84 16 25.8	− 0.6	− 0.3	. .	
	25	E.	II.	11 23 43.65	+ 0.15	− 0.08	. .	. .	S.	85 0 17.1	. .	. .	. .	

SATURN.

Date.		Observer.	Limb.	Apparent Right Ascension of center.	Corr'n to Am. Eph.	Sidereal time of transit of semi-diameter.	Corr'n to Am. Eph.	Limb.	Geocentric N. P. distance of center.	Corr'n to Am. Eph.	Vertical semi-diameter.	Corr'n Am. E
1868.				h. m. s.	s.	s.	s.		° ′ ″	″	″	
Feb.	11	A.	. .	16 13 15.21	− 1.01	0.61	+ 0.07	C.	109 11 28.8	− 12.9	. .	. .
	14	A.	. .	16 13 52.38	− 0.83	0.58	+ 0.04	. .	109 12 35.8	− 14.3	8.4	− [illegible]
April	27	N.	. .	16 10 25.30	− 0.74	0.66	+ 0.05	. .	108 54 3.1	− 14.8	8.8	− 0.2
	30	A.	. .	16 9 37.68	− 0.65	0.64	+ 0.03	. .	. . . .	. .	. .	. .
May	11	N.	. .	16 6 29.24	− 0.56	0.62	+ 0.01	. .	108 43 8.1	− 14.7	9.4	+ [illegible]
	21	N.	. .	16 3 26.64	− 0.42	0.62	+ 0.01	. .	108 34 58.6	− 14.0	9.0	+ [illegible]
	26	A.	. .	16 1 54.07	− 0.56	0.57	− 0.04	. .	. . . .	. .	. .	.
	30	E.	. .	16 0 40.92	− 0.39	0.66	+ 0.05	. .	. . . .	. .	. .	. .
June	1	N.	. .	16 0 4.60	− 0.47	0.62	+ 0.01	. .	108 26 11.0	− 14.7	9.0	+ [illegible]
	4	N.	. .	15 59 11.12	− 0.29	1.36	. .	S.	108 23 54.5	− 14.4	. .	. .
	5	E.	. .	15 58 53.34	− 0.41	0.70	+ 0.09	. .	. . . .	. .	. .	.
	12	E.	. .	15 56 53.63	− 0.40	0.68	+ 0.07	. .	. . . .	. .	. .	.
	13	T.	. .	15 56 37.24	− 0.35	0.58	− 0.03	S.	108 17 32.7	− 12.9	. .	.
	17	T.	. .	15 55 33.45	− 0.39	0.58	− 0.03	. .	108 14 58.3	− 13.8	7.7	− [illegible]
	18	N.	. .	15 55 18.14	− 0.29	0.64	+ 0.03	. .	108 14 22.7	− 12.9	9.1	+ [illegible]
	22	N.	. .	15 54 18.96	− 0.23	0.63	+ 0.02	. .	108 12 4.2	− 13.6	8.4	− [illegible]
	24	T.	. .	15 53 50.83	− 0.25	0.67	+ 0.06	N.	108 11 18.6	+ 4.4	. .	. .
	25	N.	. .	15 53 37.26	− 0.17	0.62	+ 0.02	. .	108 10 30.6	− 13.2	8.0	− [illegible]
	26	E.	. .	15 53 23.88	− 0.17	0.70	+ 0.10	. .	108 10 3.5	− 10.9	10.5	+ [illegible]
July	1	T.	. .	15 52 21.36	− 0.24	0.62	+ 0.02	N.	108 7 49.6	− 12.5	. .	. .
	2	N.	. .	15 52 9.82	− 0.20	0.62	+ 0.02	. .	108 7 25.6	− 13.1	8.2	− [illegible]
	3	E.	. .	15 51 58.51	− 0.24	0.64	+ 0.04	. .	. . . .	. .	. .	.
	13	N.	. .	15 50 24.23	− 0.04	0.65	+ 0.06	. .	108 4 22.6	− 12.4	8.6	+ [illegible]
	16	N.	. .	15 50 2.68	− 0.12	0.60	+ 0.01	. .	108 3 58.9	− 10.6	8.7	+ [illegible]
	17	E.	. .	15 49 56.24	− 0.13	0.72	+ 0.12	. .	108 3 52.2	− 11.2	10.3	+ [illegible]
	23	N.	. .	15 49 25.63	− 0.15	0.58	− 0.01	. .	108 3 40.9	− 12.4	8.6	+ [illegible]

URANUS.

Date.		Observer.	Limb.	Apparent Right Ascension of center.	Corr'n to Am. Eph.	Sidereal time of transit of semi-diameter.	Corr'n to Am. Eph.	Limb.	Geocentric N. P. distance of center.	Corr'n to Am. Eph.	Vertical semi-diameter.	Corr'n Am. E
Feb.	3	N.	C.	6 41 34.34	+ 1.74	. .	. .	. .	66 30 40.4	+ 12.2	. .	. .
	7	A.	C.	6 41 0.93	+ 1.44	. .	. .	. .	66 30 8.7	+ 12.2	. .	. .
	11	A.	C.	6 40 30.64	+ 1.62	. .	. .	. .	. . . .	. .	. .	. .
	12	Ha.	C.	6 40 23.51	+ 1.67	. .	. .	. .	66 29 41.2	+ 9.6	. .	. .
	18	A.	I.	6 39 44.34	+ 1.60	. .	. .	. .	66 28 56.9	+ 10.3	1.8	− [illegible]
	19	Ha.	C.	6 39 38.77	+ 1.86	. .	. .	. .	66 28 53.9	+ 12.4	. .	.
	22	N.	. .	6 39 22.28	+ 1.65	0.12	+ 0.01	. .	66 28 39.4	+ 11.9	. .	.
March	19	E.	. .	6 38 24.32	+ 1.68	. .	. .	. .	66 28 1.1	+ 11.8	. .	.
Oct.	8	N.	C.	7 15 24.37	+ 2.03	. .	. .	. .	67 16 38.2	+ 16.6	. .	.
	12	N.	C.	7 15 35.30	+ 1.99	. .	. .	. .	67 16 49.2	+ 18.0	1.8	[illegible]
	17	T.	C.	7 15 43.71	+ 1.89	. .	. .	. .	. . . .	. .	. .	
	23	F.	C.	7 15 46.17	+ 1.80	. .	. .	. .	67 16 50.3	+ 16.6	. .	.
	24	T.	. .	7 15 45.90	+ 1.91	0.14	+ 0.03	. .	67 16 49.2	+ 18.0	1.8	[illegible]
	28	T.	. .	7 15 42.08	+ 1.94	0.18	+ 0.07	N.	67 16 35.8	+ 18.9	. .	.
Nov.	2	N.	C.	7 15 32.07	+ 1.89	. .	. .	. .	67 16 3.2	+ 13.2	. .	. .
	5	N.	. .	7 15 23.52	+ 2.02	0.10	− 0.01	. .	67 15 42.0	+ 13.0	. .	. .
	6	E.	. .	7 15 20.00	+ 1.83	0.26	+ 0.15	. .	67 15 38.5	+ 17.2	. .	. .
	11	T.	C.	7 15 0.18	+ 1.96	. .	. .	. .	67 14 50.8	+ 13.8	. .	. .
	12	N.	. .	7 14 55.38	+ 1.80	0.10	− 0.01	. .	67 14 40.6	+ 13.6	. .	. .
Dec.	1	T.	. .	7 12 49.81	+ 1.73	0.22	+ 0.10	. .	67 10 25.4	+ 8.5	3.2	− [illegible]
	5	T.	. .	7 12 15.51	+ 1.83	. .	. .	. .	67 9 26.2	+ 14.1	. .	.
	8	F.	. .	7 11 48.29	+ 1.94	. .	. .	. .	. . . .	. .	. .	. .
	17	N.	. .	7 10 19.52	+ 1.84	0.14	+ 0.02	. .	67 5 56.0	+ 14.6	2.0	+ [illegible]
	18	F.	. .	. . . .	. .	. .	. .	. .	67 6 19.2	+ 55.2	. .	. .
	21	N.	. .	7 9 37.47	+ 1.79	0.17	+ 0.05	. .	67 4 41.8	+ 14.2	1.6	− [illegible]
	23	T.	. .	7 9 15.98	+ 1.76	0.20	+ 0.08	. .	67 4 35.1	+ 44 8	2.6	+ [illegible]

July 24. Seems 1 rev. wrong in N. P. D.

NEPTUNE.

Date.		Observer.	Limb.	App'nt Right Ascension of center.	Corr'n to Am. Eph.	Corr'n to Newcomb's tables.	Sid. time of transit of semi-diam.	Corr'n to Am. Eph.	Limb.	Geocentric N. P. distance of center.	Corr'n to Am. Eph.	Corr'n to Newcomb's tables.	Vertical semi-diam.	Corr'n to Amer. Ephem.
1868.				h. m. s.		s.	s.	s.		° ′ ″	″	″	″	″
Aug.	12	T.	. .	1 5 52.31	− 4.12	+ 0.14	. .	. .	. .	84 46 25.1	+ 24.8	+ 0.5	. .	. .
	22	T.	. .	1 5 20.30	− 4.17	+ 0.10	. .	. .	. .	84 50 15.4	+ 25.9	+ 0.6	. .	. .
	26	T.	. .	1 5 4.76	− 4.15	+ 0.11	. .	. .	. .	84 52 1.2	+ 23.9	− 0.3	. .	. .
	29	T.	. .	1 4 52.14	− 4.16	+ 0.09	. .	. .	. .	84 53 27.9	+ 24.2	+ 0.1	. .	. .
Sept.	5	T.	. .	1 4 19.80	− 4.17	+ 0.12	. .	. .	. .	84 57 6.1	+ 24.5	+ 0.7	. .	. .
	7	F.	. .	1 4 9.99	− 4.06	+ 0.23	. .	. .	. .	84 58 13.6	+ 25.8	+ 2.2	. .	. .
	8	Ha.	. .	1 4 5.59	− 3.39	− 0.10	. .	. .	. .	84 58 47.2	+ 25.8	+ 2.2	. .	. .
	10	Ha.	. .	1 3 54.31	− 4.32	− 0.04	. .	. .	. .	84 59 52.6	+ 23.0	− 0.5	. .	. .
	17	Ha.	. .	1 3 16.29	− 4.18	+ 0.06	. .	. .	. .	85 4 4.9	+ 26.2	+ 2.5	. .	. .
	18	Ha.	. .	1 3 10.70	− 4.09	+ 0.15	. .	. .	. .	85 4 41.0	+ 25.7	+ 1.9	. .	. .
	30	F.	. .	1 1 59.62	− 4.13	+ 0.07	. .	. .	. .	85 12 16.5	+ 26.4	+ 2.6	. .	. .
Oct.	1	T.	. .	1 1 53.45	− 4.19	0.00	. .	. .	. .	85 12 56.6	+ 27.7	+ 3.9	. .	. .
	5	N.	. .	1 1 28.88	− 4.19	+ 0.01	. .	. .	. .	85 15 29.3	+ 25.3	+ 1.6	. .	. .
	12	N.	. .	1 0 45.72	− 4.09	+ 0.10	. .	. .	. .	85 19 59.8	+ 25.4	+ 1.8	. .	. .
	17	T.	. .	1 0 14.99	− 4.11	+ 0.05	. .	. .	. .	85 23 7.1	+ 22.6	− 0.9	. .	. .
	23	F.	. .	. . . .	. .	. .	. .	. .	. .	85 26 55.0	+ 28.9	+ 5.6	. .	. .
	24	T.	. .	0 59 33.02	− 4.06	+ 0.06	. .	. .	. .	85 27 27.0	+ 24.9	+ 1.6	. .	. .
	26	E.	. .	0 59 21.40	− 3.99	+ 0.13	. .	. .	. .	85 28 38.1	+ 25.0	+ 1.8	. .	. .
	28	T.	. .	0 59 9.84	− 4.05	+ 0.07	. .	. .	. .	85 29 45.5	+ 22.7	− 0.5	. .	. .
	29	E.	. .	0 59 4.02	− 4.18	− 0.06	. .	. .	. .	85 30 20.1	+ 23.0	− 0.2	. .	. .
	30	F.	. .	0 58 58.66	− 3.89	+ 0.22	. .	. .	. .	85 30 57.2	+ 26.1	+ 2.8	. .	. .
Nov.	2	N.	. .	0 58 41.97	− 3.99	+ 0.12	. .	. .	. .	85 32 35.6	+ 24.9	+ 1.6	. .	. .
	5	N.	. .	0 58 25.85	− 4.03	+ 0.08	. .	. .	. .	85 34 9.6	+ 23.1	− 0.1	. .	. .
	6	E.	. .	0 58 20.62	− 4.04	+ 0.08	. .	. .	. .	85 34 44.8	+ 27.2	+ 4.0	. .	. .
	7	T.	. .	0 58 15.43	− 4.04	+ 0.07	. .	. .	. .	85 35 14.9	+ 26.6	+ 3.5	. .	. .
	9	N.	. .	0 58 5.24	− 4.10	− 0.02	. .	. .	. .	85 36 12.4	+ 24.2	+ 1.2	. .	. .
	11	T.	. .	0 57 55.46	− 4.02	+ 0.02	. .	. .	. .	85 37 9.7	+ 23.9	+ 1.0	. .	. .
	12	N.	. .	0 57 50.62	− 4.05	− 0.02	. .	. .	. .	85 37 36.8	+ 22.9	+ 0.1	. .	. .
	13	E.	. .	0 57 46.03	− 3.91	+ 0.11	. .	. .	. .	85 38 5.1	+ 23.7	+ 0.9	. .	. .
	14	T.	. .	0 57 41.24	− 4.07	− 0.06	. .	. .	. .	85 38 33.2	+ 24.8	+ 2.1	. .	. .
	18	T.	. .	0 57 23.80	− 3.78	+ 0.22	. .	. .	. .	85 30 13.9	+ 23.2	+ 0.7	. .	. .
	23	N.	. .	0 57 3.60	− 3.95	+ 0.05	. .	. .	. .	85 42 7.0	+ 23.2	+ 0.6	. .	. .
	27	T.	. .	0 56 49.21	− 4.08	− 0.08	. .	. .	. .	85 43 23.5	+ 21.2	− 1.7	. .	. .
Dec.	1	T.	. .	0 56 36.71	− 3.98	+ 0.01	. .	. .	. .	85 44 33.9	+ 24.4	+ 1.1	. .	. .
	2	F.	. .	0 56 33.89	− 3.92	+ 0.07	. .	. .	. .	85 44 50.6	+ 26.1	+ 2.7	. .	. .
	10	N.	. .	0 56 15.10	− 3.77	+ 0.20	. .	. .	. .	85 46 23.2	+ 24.4	+ 1.2	. .	. .
	17	N.	. .	0 56 4.63	− 3.96	− 0.02	. .	. .	. .	85 47 4.5	+ 22.8	+ 0.6	. .	. .
	21	N.	. .	0 56 1.62	− 3.84	+ 0.09	. .	. .	. .	85 47 10.9	+ 22.9	+ 0.7	. .	. .
	22	F.	. .	0 56 1.11	− 3.89	+ 0.04	. .	. .	. .	85 47 9.1	+ 21.6	− 0.6	. .	. .
	23	T.	. .	0 56 0.74	− 3.92	. .	. .	. .	. .	85 47 10.2	+ 24.1	+ 1.9	. .	. .

Sept. 8. N. P. D. increased by 1 rev. — 15″.3.

SMALL PLANETS.

Date.	Observer.	Washington mean time.	Berlin mean time corrected for aberration.	Apparent Right Ascension of center.	Corr'n to Ephem.	Geocentric N. P. distance of center.	Corr'n to Ephem.	NOTES.
CERES (1).								
1868.		h. m.	h. m.	h. m. s.	s.	° ′ ″	″	
Aug. 13	F.	12 52.3	18 37.7	22 24 0.76	− 2.45	115 35 30.4	+ 3.9	
26	T.	11 50.2	17 35.5	22 12 56.58	− 2.24	116 49 7.3	+ 8.7	
29	T.	11 35.8	17 21.1	22 10 22.50	− 2.63	117 2 27.5	+ 9.9	
JUNO (3).								
May 11	N.	12 18.8	18 1.1	15 39 47.49	+ 1.24	92 40 30.7	+ 3.4	
21	N.	11 31.2	17 13.4	15 31 37.75	+ 1.26	92 1 8.9	+ 4.6	
26	A.	11 7.7	16 49.8	15 27 39.80	+ 1.00	91 46 11.1	+ 2.0	
30	E.	10 48.9	16 30.9	15 24 38.07	+ 1.14	91 36 50.9	+ 2.1	N. P. D. increased one rev.
ASTRÆA (5).								
June 27	T.	11 7.3	16 53.8	17 33 26.80	− 2.03	106 44 47.6	− 4.0	
29	N.	10 57.7	16 44.2	17 31 41.53	− 2.03	106 47 10.2	− 2.1	
July 1	T.	10 48.1	16 34.5	17 29 59.50	− 2.07	106 49 39.9	− 2.9	
IRENE (14).								
July 18	T.	11 8.1	16 56.4	18 57 1.97	+ 1.51	118 9 24.0	+ 6.3	
22	T.	10 48.7	16 37.0	18 53 25.35	+ 1.54	118 22 58.4	+ 4.0	
EUNOMIA (15).								
June 15	N.	11 37.7	17 24.2	17 16 35.59	− 0.13	122 37 57.0	− 14.8	
22	N.	11 2.8	16 49.3	17 9 16.99	− 0.30	122 5 51.2	− 14.7	
23	E.	10 57.8	16 44.2	17 8 17.22	+ 0.13	. . . .	. .	
27	T.	10 38.5	16 24.9	17 4 24.71	− 0.26	121 40 6.8	− 14.5	
PSYCHE (16).								
April 30	A.	11 53.8	17 36.9	14 31 25.34	+ 0.11	100 33 17.6	+ 4.9	
May 11	N.	11 2.2	16 45.3	14 22 57.24	+ 0.28	99 50 21.7	+ 1.2	
MELPOMENE (18).								
Feb. 11	A.	11 46.1	17 35.6	. . . .	. .	77 14 35.4	+ 2.7	
18	A.	11 12.1	17 1.3	9 5 42.15	+ 1.06	76 13 13.2	+ 0.7	
THALIA (23).								
Aug. 20	F.	11 40.2	17 23.8	. . . .	. .	119 3 47.8	− 11.0	
26	T.	11 11.2	16 54.7	21 33 54.72	+ 1.26	119 24 41.6	− 6.1	
URANIA (30).								
May 26	A.	11 39.0	17 27.7	15 59 8.34	+ 3.70	113 42 44.0	+ 12.2	
June 5	E.	10 49.5	16 38.2	15 49 1.73	+ 4.00	113 7 16.9	+ 4.6	

EUPHROSYNE (31).

Date.	Observer.	Washington mean time.	Berlin mean time corrected for aberration.	Apparent Right Ascension of center.	Corr'n to Ephem.	Geocentric N. P. distance of center.	Corr'n to Ephem.	NOTES.
1868.		h. m.	h. m.	h. m. s.	s.	° ′ ″	″	
April 21	N.	11 58.9	17 41.4	14 1 5.30	− 9.74	103 11 43.1	− 20.2	
24	A.	11 44.2	17 26.6	13 58 6.97	− 9.71	103 14 4.1	− 19.7	
27	N.	11 29.5	17 11.8	13 55 10.74	− 9.69	103 16 14.5	− 21.6	

POLYHYMNIA (33).

June 13	T.	12 11.5	18 2.2	17 42 39.03	− 5.26	116 41 32.7	− 0.1	
15	N.	12 1.6	17 52.4	17 40 38.61	− 5.31	116 41 45.3	+ 0.4	
18	N.	11 46.8	17 37.7	17 37 35.35	− 5.51	116 41 33.8	+ 0.7	
26	E.	11 7.3	16 58.3	17 29 29.09	− 5.14	116 38 9.0:	− 2.1	
27	T.	11 2.4	16 53.4	17 28 30.20	− 5.36	116 37 28.6	+ 0.5	

DORIS (48).

Aug. 26	T.	12 33.1	18 17.6	22 55 59.31	− 2.30	92 33 56.2	+ 7.9	
29	T.	12 19.3	18 3.9	22 53 56.24	− 2.36	92 51 19.9	+ 9.7	
Sept. 7	F.	11 37.6	17 22.2	. . . .	. .	93 46 3.4	+ 13.4	

CALYPSO (53).

uly 22	T.	12 19.3	18 4.4	20 24 11.98	− 1.90	106 30 13.3	− 9.0	The records of the observations are all unexceptionable; probably two are one rev. wrong.
25	T.	12 4.8	17 49.9	20 21 30.54	− 1.59	106 43 28.0	+ 12.4	
ug. 12	T.	10 38.6	16 23.5	20 5 59.63	− 1.70	107 59 35.9	− 5.1	
15	T.	10 24.5	16 9.3	20 3 42.55	− 1.91	108 11 39.7	+ 12.6	

MELETE (56).

eb. 14	A.	11 2.4	16 46.2	8 40 12.71	+ 3.23	81 54 56.2	− 22.6	Doubtful whether it is Melete.
18	A.	10 43.3	16 27.0	. . . .	. .	81 34 2.5	− 13.0	

MNEMOSYNE (57).

pril 21	N.	11 36.7	17 18.1	13 38 50.98	− 0.49	97 14 30.8	− 8.7	
24	A.	11 22.9	17 4.3	13 36 51.49	− 0.58	96 53 17.4	− 5.2	

ELPIS (59).

une 15	N.	11 13.9	17 0.2	16 52 41.16	+ 0.44	99 14 31.7	+ 1.4	
22	N.	10 40.6	16 26.8	16 47 0.83	+ 0.32	99 13 5.9	+ 1.1	

DANÆ (61).

eb. 14	A.	12 25.5	18 17.1	. . . .	. .	77 14 35.4	+ 2.7	
18	A.	12 6.0	17 47.6	9 5 42.15	+ 1.06	76 13 13.2	+ 0.7	

CYBELE (65).

ay 11	N.	12 14.0	17 59.1	15 35 0.20	+ 0.56	104 7 42.6:	+ 10.6:	
26	A.	11 4.1	16 49.1	15 24 5.71	+ 0.60	103 26 1.4	+ 5.7	

HESPERIA (69).

Date.		Observer.	Washington mean time.	Berlin mean time corrected for aberration.	Apparent Right Ascension of center.	Corr'n to Ephem.	Geocentric N. P. distance of center.	Corr'n to Ephem.	NOTES.
1868.			h. m.	h. m.	h. m. s.	s.	° ′ ″	″	
July	18	T.	12 14.9	17 56.4	20 4 1.90	− 1.83	99 8 18.0	+ 9.0	
	22	T.	11 56.0	17 37.5	20 0 56.58	− 1.61	99 20 2.5	+ 4.9	
	25	T.	11 42.0	17 23.5	19 58 37.52	− 1.85	99 29 39.5	+ 8.0	
Aug.	5	T.	10 18.5	15 59.6	. . . . .	. .	100 8 45.2	+ 10.2	
	15	T.	10 4.9	15 45.8	19 44 6.17	− 1.48	100 47 29.2	+ 6.4	
	19	T.	9 47.1	15 27.8	19 41 57.02	− 0.38	101 3 24.2	+ 12.9	Doubtful whether this obs. is Hesperia

DIANA (78).

Date.		Observer.	Washington mean time.	Berlin mean time corrected for aberration.	Apparent Right Ascension of center.	Corr'n to Ephem.	Geocentric N. P. distance of center.	Corr'n to Ephem.	NOTES.
June	15	N.	11 46.4	17 31.8	17 25 19.91	− 1.25	125 31 21.5	+ 12.1	It cannot be determined whether either of these obs. pertains to Diana.
	22	N.	11 11.5	16 56.8	17 17 51.77	− 2.68	125 14 21.5	+ 3.1	

SAPPHO (80).

Date.		Observer.	Washington mean time.	Berlin mean time corrected for aberration.	Apparent Right Ascension of center.	Corr'n to Ephem.	Geocentric N. P. distance of center.	Corr'n to Ephem.	NOTES.
Aug.	26	T.	12 13.5	18 8.2	22 36 25.06	+ 10.06	81 21 28.9	− 39.1	Doubtful which obs. pertain to Sappho
	29	T.	11 59.4	17 54.1	22 34 8.66	+ 0.45	81 43 2.7	− 35.3	
	31	F.	11 50.3	17 45.1	22 32 43.00	− 0.06	81 59 39.2	+ 4.7	

IO (85).

Date.		Observer.	Washington mean time.	Berlin mean time corrected for aberration.	Apparent Right Ascension of center.	Corr'n to Ephem.	Geocentric N. P. distance of center.	Corr'n to Ephem.	NOTES.
March	30	N.	11 48.2	17 34.0	12 23 28.54	+ 4.87	97 34 9.5	+ 15.8	
	31	A.	11 43.4	17 29.2	12 22 41.64	+ 5.23	97 25 34.2	+ 17.9	

CORRECTIONS

TO THE

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF THE AMERICAN EPHEMERIS,

GIVEN BY

INDIVIDUAL OBSERVATIONS OF STARS

WITH THE

TRANSIT CIRCLE.

CORRECTIONS

TO THE

STAR POSITIONS OF THE AMERICAN EPHEMERIS, ETC.

α Andromedæ.

				s.		″
Feb.	7	A.	−	.14		. .
	11	A.	+	.02	+	1.2
	13	E.	−	.11	−	0.6
	18	A.	+	.09	−	1.4
	19	Ha.	−	.05	+	0.2
	22	N.	+	.04	+	1.5
April	7	N.	+	.06	+	1.2
	17	N.	−	.11	+	0.9
	27	N.		. .	−	0.6
	30	A.	+	.05	+	1.3
June	12	E.	+	.09	+	0.7
Aug.	20	F.		.00		. .
Sept.	7	F.	−	.14	+	2.4
	18	Ha.	+	.03	−	0.7
Oct.	16	F.		. .	+	1.4
Nov.	3	E.	+	.04	−	0.1
	6	A.	+	.08	+	1.1
Mean	. . . .		−	.003	+	0.57
Div.				. .	−	0.15
Flex., etc.	. . .			. .	+	1.06

α Andromedæ, (Ref.)

Oct.	5	N.	+	.04	−	0.8
	6	F.	−	.09		. .
	23	F.	+	.08	−	0.8
	24	T.	+	.11	+	1.5
	26	E.	−	.09	+	0.9
	28	T.	−	.05	+	0.5
Nov.	5	N.	−	.02	+	0.8
	7	T.	+	.03	+	0.9
	9	N.	−	.10		0.0
	11	T.	−	.06	+	1.1
Mean	. . . .		−	.015	+	0.46
Div.				. .	−	0.01
Flex., etc.	. . .			. .	+	1.27

γ Pegasi.

Feb.	11	A.	+	.03	+	0.4
	22	N.	+	.10	+	1.9
May	10	N.	−	.07	−	0.4
June	12	E.	+	.08	+	1.0
	13	T.	+	.09	+	0.9
July	11	T.	+	.04	+	0.7
Oct.	5	N.	−	.02	+	0.8
	24	T.	+	.04	+	3.0
	26	E.	−	.09	+	0.8
	28	T.	−	.09	+	1.7
Nov.	3	E.	+	.05	+	0.7
	6	E.	+	.11	+	2.1
	7	T.	+	.07	+	2.4
Dec.	5	H.		. .	−	0.4
Mean	. . . .		+	.026	+	1.11
Div.				. .	+	0.08
Flex., etc.	. . .			. .	+	1.03

γ Pegasi, (Ref.)

Nov.	9	N.	−	.05	−	0.1
	12	N.	−	.01	−	1.3

γ Pegasi, (Ref.)—Continued.

				s.		″
Nov.	13	E.	+	.05	−	0.3
	14	T.	−	.01	+	0.5
	19	N.	+	.01	+	0.3
Mean	. . . .		−	.002	+	0.02
Div.				. .	+	0.18
Flex., etc.	. . .			. .	+	1.24

α Cassiopeæ.

Aug.	13	F.	+	.02	+	0.8
	20	F.	−	.80	+	3.1
Nov.	11	T.	+	.10	+	2.0
	13	E.	−	.40	+	3.6
	14	T.	−	.07	+	0.6
	18	T.	−	.03	−	1.8
	23	N.	+	.12	−	1.0
Mean	. . . .		−	.151	+	1.06
Div.				. .	−	0.27
Flex., etc.	. . .			. .	+	0.33

α Cassiopeæ, (Ref.)

Nov.	9	N.	−	.17		. .
	12	N.		. .	−	1.4
	19	N.	−	.09	−	1.4
Dec.	10	N.	−	.05	−	1.0
Mean	. . . .		−	.010	−	1.27
Div.				. .	−	0.02
Flex., etc.	. . .			. .	+	1.89

α Cassiopeæ, S. P.

May	11	N.	+	.26	+	2.2
	21	N.		.00	−	4.2
	26	A.	−	.16	−	1.1
Mean	. . . .		+	.033	−	2.50
Div.				. .	−	0.10
Flex., etc.	. . .			. .	−	0.20

β Ceti.

June	13	T.	+	.11	−	0.2
July	11	T.	+	.14	−	2.0
Aug.	12	T.	+	.22	+	0.3
	13	F.		.00	+	2.4
	17	T.	+	.08	−	4.2
	23	F.	+	.11	−	0.2
	24	T.	+	.10	+	0.1
	26	E.	−	.01	+	0.6
Nov.	2	N.	+	.09	−	1.4
	19	N.	+	.07	−	0.1
Dec.	1	T.	+	.05	−	1.8
	12	H.		. .	−	1.1
	22	F.		.00		. .
	23	H.		. .	−	0.6
Mean	. . . .		+	.079	−	0.60
Div.				. .	+	0.09
Flex., etc.	. . .			. .	+	0.84

21 Cassiopeæ.

				s.		″
Oct.	29	E.	+	.05	−	1.8
	30	F.	+	.08	−	1.5
Nov.	3	E.	−	.14	−	1.6
	5	N.	+	.34	−	2.8
	6	E.	−	.27	−	3.5
Mean	. . . .		+	.018	−	2.24
Div.				. .	+	0.19
Flex., etc.	. . .			. .	+	0.24

21 Cassiopeæ, S. P.

April	24	A.	−	.48	+	2.0
	27	N.	+	.18	+	1.8
May	1	N.	+	.43	+	1.1
	4	N.	+	.36	+	1.2
	18	N.	+	.15	+	1.6
	22	A.	+	.05	+	1.0
Mean	. . . .		+	.115	+	1.45
Div.				. .	+	0.08
Flex., etc.	. . .			. .	−	0.02

ε Piscium.

June	13	T.	−	.02	+	1.1
Aug.	29	T.	−	.13	−	2.1
Sept.	5	T.	+	.01		0.0
	30	F.		.00	+	1.8
Oct.	5	N.	−	.12	−	0.1
	6	F.	−	.08	−	0.8
	7	T.	−	.03		0.0
	12	N.	−	.08	+	1.0
	24	T.	−	.09		. .
	28	T.	−	.06	−	0.9
Nov.	23	N.	−	.05		. .
Dec.	3	N.		. .	+	0.5
	18	H.		. .	+	0.5
Mean	. . . .		−	.059	+	0.09
Div.				. .	+	0.11
Flex., etc.	. . .			. .	+	0.99

Polaris.

Jan.	4	A.	+	0.1	−	0.3
	30	T.	−	1.4	+	2.3
Feb.	11	A.	−	4.1	−	1.1
	12	Ha.	+	1.7	−	0.5
	13	E.	+	3.7	+	2.6
	14	A.	+	1.1	−	1.0
	18	A.	+	2.5	−	0.7
	19	Ha.	−	0.3	−	0.8
	22	N.	+	1.3	−	0.4
Mar.	18	Ha.	+	0.6	−	4.3
	19	E.		. .	+	4.9
	31	A.	+	0.2	−	0.7
April	7	N.	+	1.2		. .
	17	N.	+	1.0	+	0.5
	26	N.	+	2.4		. .
	29	N.		. .	−	0.8

Polaris—Continued.

				s.		
April	30	N.	+	1.7	−	0.3
May	10	N.	+	2.7	−	1.4
	13	N.		. .	−	0.5
	17	N.	−	0.6	−	2.6
	21	A.	−	0.4		1.9
	24	N.		. .	−	2.0
	25	A.	−	0.9	−	1.5
	31	N.	−	0.6	−	0.2
June	12	T.	+	3.5		. .
	13	T.	+	2.9		0.0
	14	N.		. .		0.2
	16	T.	+	2.2		. .
July	1	T.	+	2.5	−	1.7
	3	T.	+	2.4	−	0.6
	10	T.	+	1.7	−	0.8
	11	T.	+	1.0		0.3
	12	T.		. .	−	0.9
	17	T.	+	2.1		. .
Aug.	12	T.	+	1.2	+	0.2
	13	F.	−	0.9		. .
	22	T.		. .	+	2.2
	26	T.	+	2.0	−	0.2
	29	T.	+	1.5		0.0
Sept.	4	Ha.		. .		1.4
	5	T.	+	2.6	−	0.7
	8	Ha.	−	0.3	+	1.7
	10	Ha.		. .	−	0.3
	17	Ha.		. .	−	0.4
Sept.	18	Ha.		. .	−	1.3
	30	F.	−	4.4		. .
Oct.	1	T.	+	2.0		. .
	5	N.		. .	+	0.4
	6	F.		. .	+	0.8
	12	N.	+	3.2	+	1.0
	13	F.		. .	+	1.9
	23	F.	−	3.2	+	0.6
	24	T.	+	.2.0	+	0.2
	26	E.	+	2.8	−	0.2
	28	T.	+	3.6	+	0.3
	29	E.	+	1.9	−	0.6
	30	F.	−	2.4	+	1.2
Nov.	5	N.		0.0	−	1.0
	6	E.		. .	+	0.3
	9	N.		. .	−	0.8
	11	T.	+	2.9	−	0.9
	12	N.	+	0.9	−	0.1
	13	E.	−	2.9	+	0.9
	14	T..	+	0.3		. .
	18	T.	+	6.8	−	0.9
	19	N.	−	1.0		. .
	21	T.	+	4.9		. .
	23	N.	+	1.5	+	0.2
	23	F.	−	0.2	+	1.5
	24	H.		. .	+	0.7
	27	T.		. .	−	0.5
Dec.	1	T.		. .	−	1.0
	2	F.		. .	+	0.4
	3	N.		. .	+	0.2
	8	F.		. .	+	1.5
	10	N.		. .	+	0.2
	12	H.		. .	−	0.8
	17	N.		. .	−	1.2
	18	H.		. .	+	0.1
	21	N.	+	0.7		0.0
	22	F.		. .	+	3.1
	23	T.		. .	−	0.3
Mean			+	1.048	−	0.14
Div.				. .	+	0.21
Flex., etc. . . .				. .	+	0.13

Polaris, (Ref.)

May	10	N.		. .	+	0.4
Oct.	28	T.		. .	+	0.4
Nov.	9	N.		. .	−	0.9
Dec.	17	N.		. .	−	1.0
Mean				. .	−	0.28
Div.				. .	−	0.32
Flex., etc. . . .				. .	+	1.65

Polaris, S. P.

				s.		
Feb.	11	A.	−	5.2		. .
	12	Ha.	+	1.9	−	1.6
	13	E.	+	3.8	+	2.7r
March	18	Ha	+	0.8	−	3.1
	19	E		.		1.1
	30	N	+	0.9	−	1.0
	31	A	+	0.3	−	1.1
April	5	N	+	0.2	−	0.7
	21	N.		. .	−	0.8
	24	A.		. .	−	1.1
	27	N.	+	2.0	−	1.6
May	1	N	+	1.0	−	0.9
	4	N		. .	−	1.3
	11	N	+	2.3	−	0.7
	16	E		. .	+	0.6
	18	N.	−	0.7		. .
	21	N.		. .		0.0
	22	A.	−	0.2		. .
	26	A.	+	0.5	−	0.6
June	1	N.		0.4	−	1.1
	5	E	+	4.2	+	2.7
	13	T.	+	3.0	−	0.8
	15	N.	+	1.0		0.0
	17	T.	+	2.7		. .
	18	N.		. .	−	1.3
	22	N		. .	−	1.6
	25	N.		. .	−	1.1
	26	E.		. .	+	0.2
	27	T.		. .	−	1.1
	28	T.		. .	−	1.2
	29	N.		. .	−	0.7
July	1	T	+	1.9	−	1.0
	2	N.		. .	−	1.5
	4	T.	+	1.9		0.0
	11	T.	+	2.0	+	0.7
	13	N.		. .	−	0.7
	18	T.	+	2.3	+	0.4
	23	N.		. .	+	0.1
Aug.	6	F.		. .	−	1.3
	12	T.	+	1.1		. .
	13	F.	−	2.0	−	0.1
	15	T.		. .	+	0.9
	18	E.		. .		0.0
	19	T.		. .	−	0.3
	26	T.	+	2.0		. .
	27	F.		. .	+	0.9
	29	T.	+	2.1	−	0.5
	31	F.		. .	+	1.3
Sept.	5	T.	+	0.7	−	0.9
	7	F.	+	1.4	+	0.8
	8	Ha.	−	0.4	+	1.7
	12	T.		. .	−	0.9
	19	F.		. .	+	0.5
	28	F.		. .	+	2.0
	30	F.	−	4.8	−	0.3
Oct	1	T.	+	1.7		. .
	11	N.	+	3.5	+	1.3
	16	T.	+	5.7		. .
	18	E		. .	−	0.7
	22	F.	−	1.7	+	1.0
	23	F.	+	2.8	−	1.5
	25	E.	+	2.4		0.0
	27	T.	+	3.5	−	1.7
	28	E.	+	2.3	−	1.1
	29	F.	−	3.0	−	0.7
Nov.	4	N.	+	3.9	−	2.5
	6	T.	−	0.3	+	2.0
	9	E.		. .	−	0.6
	10	T	+	2.7		. .
	11	N.	+	0.6	−	1.7
	11	F.	+	0.5	−	0.5
	12	E.	−	2.8	−	1.6
	13	T.	−	0.5		. .
	17	T.	+	7.0	−	1.4
	18	N.	−	1.4	−	2.2
	20	T.	+	4.1	−	1.2
	22	N.	+	1.0	−	1.0
Dec.	8	T.		. .	−	1.5
Mean			+	1.188	−	0.47
Div.				. .	+	0.18
Flex., etc. . . .				. .	+	0.10

Polaris, S. P., (Ref.)

				s.		
April	21	N.		. .	−	[illegible]
May	1	N.	−	1.2	−	[illegible]
	11	N.	+	0.6	−	1.1
	21	N.	+	0.2	−	[illegible]
Mean				0.133	−	[illegible]
Div.				. .	−	[illegible]
Flex., etc. . . .				. .	+	[illegible]

θ Ceti.

May	31	N.	+	.05		
June	12	T.	+	.11	−	3.9
July	4	T.	−	.04	−	[illegible]
	10	T.	−	.03	−	2.2
		T.		. .	+	0.2
	17	T.	−	.03	−	[illegible]
Aug.	26	T.	+	.06	−	1.2
Oct.	1	T.	+	.06	+	[illegible]
	29	E.	+	.09	+	1.0
Nov.	12	N.		.00	−	1.3
Dec.	10	N.	+	.11	−	0.4
	21	N.	+	.11	−	[illegible]
Mean			+	.045	−	[illegible]
Div.				. .	+	0.42
Flex., etc. . . .				. .	+	[illegible]

A Cassiopeæ.

Dec.	10	N.	+	.28	+	0.1
	21	N.	−	.02	−	1.3
Mean			+	.13	−	[illegible]
Div.				. .	+	[illegible]
Flex., etc. . . .				. .	+	[illegible]

η Piscium.

Jan.	4	A.		. .	+	[illegible]
May	31	N.	+	.10		[illegible]
June	12	T.	+	.07	−	[illegible]
	14	N.	+	.12	−	[illegible]
July	1	T.	−	.02	+	1.2
	4	T.	+	.02	−	1.4
	10	T.	−	.04	−	[illegible]
	11	T.	+	.10	−	1.3
	12	T.		. .	−	0.4
Aug.	22	T.	+	.11		.
Sept.	8	Ha.	−	.06	−	0.7
Oct.	23	F.	+	.20	−	[illegible]
	30	F.	+	.08	+	[illegible]
Dec.	12	H.		. .		0.0
	17	N.	+	.14		. .
	18	H.		. .	−	1.0
	23	T.	+	.06	−	0.6
Mean			+	.068	−	[illegible]
Div.				. .	+	[illegible]
Flex., etc. . . .				. .	+	[illegible]

η Piscium, (Ref.)

Nov.	13	E.		. .	−	0.4
	14	T.		. .	+	[illegible]
	18	T.	+	.03	+	1.1
Dec.	2	F.	+	.22	−	1.7
	22	F.	−	.02		. .
Mean			+	.077	+	[illegible]
Div.				. .	+	[illegible]
Flex., etc. . . .				. .	+	[illegible]

ο Piscium.

Jan.	30	T.		. .	+	[illegible]
	31	T.		. .	−	1.4
June	14	N.	−	.02	−	[illegible]
	19	T.		. .		[illegible]
Oct.	23	F.	+	.04	+	[illegible]
Nov.	13	E.	−	.10	+	[illegible]
	14	T.	−	.10	+	[illegible]

ο Piscium—Continued.

				s.		″
Nov.	18	T.	−	.03	−	2.2
	19	N.	−	.07		0.0
	23	F.	+	.01	+	3.8
	24	H.	−	.05	−	0.1
	27	T.	−	.06	−	2.7
	30	F.	−	.04		. .
Dec.	2	F.	−	.11	+	1.3
	22	F.	+	.02	−	1.6
	23	T.	−	.02	+	1.7
Mean .			−	.033	+	0.21
Div.				. .	+	0.09
Flex., etc. . . .				. .	+	1.00

β Arietis.

Jan.	30	T.		. .	+	1.5
May	13	N.	+	.02	−	2.5
	24	N.		. .	−	0.8
	31	N.	+	.01	+	0.1
June	5	T.	+	.05	−	0.8
	14	N.	−	.02	−	0.3
	19	T.		. .	+	0.3
Nov.	24	H.	−	.01	+	0.2
	27	T.	+	.05	−	1.3
	30	F.	+	.01	+	0.8
Dec.	2	F.	+	.09	−	0.9
Mean			+	.025	−	0.34
Div..				. .	+	0.05
Flex., etc. . . .				. .	+	1.04

β Arietis, (Ref.)

Nov.	13	E.	+	.04	+	0.1
	18	T.	−	.10	+	1.0
	23	N.	−	.03	−	1.0
Dec.	22	F.	+	.15	−	1.9
	23	T.	−	.02	+	0.9
Mean			+	.008	−	0.18
Div.				. .	+	0.23
Flex., etc. . . .				. .	+	1.25

50 Cassiopeæ.

Dec.	1,	N.		. .	−	2.5
Div.				. .	+	0.11
Flex., etc . . .				. .	+	0.25

50 Casssiopeæ, S. P.

May	11	N.	+	.04	+	0.2
	21	N.	+	.31	+	1.4
	22	A	−	.13	−	0.7
	26	A.	−	.10	+	0.4
June	5	E.	+	.59	+	1.0
Mean			+	.142	+	0.46
Div.				. .	+	0.07
Flex., etc. . . .				. .	+	0.19

α Arietis.

Jan.	30	T.		. .	+	1.3
May	21	A.	−	.07	−	1.1
	24	N.		. .	−	0.5
June	5	T.	+	.10	−	0.3
Nov.	13	E.	+	.01	+	2.2
	14	T.	−	.02	−	1.1
	18	T.	−	.03	+	2.2
	30	F.	+	.04	+	1.3
Dec.	1	T.		.00	−	1.8
	2	F.	−	.05	+	1.1
	23	T.	−	.02	+	0.7
Mean			+	.002	+	0.38
Div.				. .	−	0.01
Flex., etc. . . .				. .	+	1.05

α Arietis, (Ref.)

				s.		″
Nov.	19	N.	−	.03	−	0.1
Dec.	14	N.		.00	−	1.4
	17	N.	+	.08	+	0.3
	22	F.	+	.05	+	0.2
Mean			+	.025	−	0.25
Div.				. .	+	0.26
Flex., etc. . . .				. .	+	1.26

ξ^1 Ceti.

Sept.	5	T.	+	09	−	1.3
Nov.	13	E.	+	.09	+	2.5
	14	T.	+	.07	−	0.6
	18	T.	+	.04	+	1.1
	19	N.	+	.04	−	0.5
	27	T.	+	.04	−	1.6
	30	F.	+	.01		. .
Dec.	1	T.	+	.05	+	1.6
	2	F.	+	.08	+	2.0
	14	N.	+	.05	−	0.1
	17	N.	−	.03	−	0.4
	21	N.	+	.11	−	1.1
	23	T.	+	01	+	0.7
Mean			+	.050	+	0.19
Div.				. .	+	0.10
Flex., etc. . . .				. .	+	1.00

ι Cassiopeæ.

Nov.	13	E.	−	.31	−	0.5
	14	T.	+	.58	+	1.2
	23	F.	+	.14		0.0
	26	F.	−	.39	−	1.8
	30	F.	+	.21	−	1.1
Dec.	2	F.	+	.09	+	1.7
Mean			+	.058	−	0.08
Div.				. .	−	0.10
Flex., etc. . . .				. .	+	0.27

ι Cassiopeæ, S. P.

May	26	A.	−	.10		. .
June	5	E.	+	.58	+	0.4
	12	E.	+	.54	+	0.4
	15	N.	+	.36	+	1.6
Mean			+	.345	+	0.80
Div.				. .	−	0.02
Flex., etc. . . .				. .	−	0.10

ζ Ceti.

May	24	N.		. .	−	3.3
June	17	N.	+	.01		3.2
Oct.	30	F.	−	.01	−	0.7
Nov.	26	F.		. .	−	0.9
	27	T.	+	0.5	+	2.3
	30	F.	+	0.8	−	2.8
Dec.	2	F.	+	0.7	−	0.9
	17	N.	−	0.1	−	0.7
	24	N.		. .	−	1.1
Mean			+	.032	−	1.56
Div.				. .	+	0.16
Flex., etc. . . .				. .	+	0.97

α Ceti

Mar.	19	E.	+	.11	−	1.4
May	24	N.		. .	−	1.5
	25	A.	+	.08		. .
	31	N.	+	.04	−	0.5
June	5	T.	+	.07	−	0.7
	12	T.	−	.10	−	1.8
	17	N.	+	.01	−	3.0
July	13	E.	+	.08	−	1.6

α Ceti—Continued.

				s.		″
Nov.	30	F.	+	.04	+	1.3
Dec.	10	N.	+	.01	−	1.2
	24	N		. .	−	0.6
Mean			+	.038	−	1.14
Div..				. .	+	0.15
Flex., etc. . . .				. .	+	0.98

α Ceti, (Ref.)

Dec.	9	T.	+	.16	+	1.3
	14	N.	+	.15	−	2.1
	17	N.	+	.07	−	1.3
	19	T.		. .	−	0.7
	21	N.		.00	−	0.2
Mean			+	.095	−	0.60
Div.				. .	−	0.19
Flex., etc. . .				. .	+	1.20

48 (H) Cephei

Nov	23	F.	+	.17	−	2.7
Dec.	3	T.	+	1.34	−	4.2
	8	F.	+	.18	+	0.4
	9	T.	−	1.80	+	1.7
	10	N.	+	.50	−	1.9
	17	N.	−	.02	−	1.9
	21	N.	−	.03	−	2.3
Mean			+	.049	−	1.69
Div.				. .	+	0.18
Flex., etc. . . .				. .	+	0.21

48 (H) Cephei, S. P.

April	27	N.	+	.48	+	0.2
	30	A.	+	.12	−	0.3
May	21	N.	+	.40	−	1.1
June	25	N.	+	.62	+	1.0
	29	N.	+	.19	+	0.8
July	2	N.	+	.17	−	0.2
	3	E.	+	.29	+	1.2
Mean			+	.324	+	0.23
Div.				. .	+	0.05
Flex. etc. . . .				. .		0.00

ζ Arietis.

Dec.	5	T.	+	.06	−	1.4
	8	T.	−	.02	−	1.9
	12	T.	−	.02	+	0.9
	18	F.	+	.03	+	1.0
	19	T	−	.03	+	0.3
	21	N.	+	.01	−	1.1
	25	F.		. .	+	2.1
Mean			+	.005	−	0.01
Div.				. .	+	0.04
Flex., etc. . . .				. .	+	1.04

α Persei.

Mar	31	A.	−	.05	−	1.2
April	1	H.	−	.21	−	1.0
Nov.	18	T.	+	.22	+	2.5
	23	F.	−	.04	+	2.4
Mean			−	.020	+	0.68
Div.				. .	+	0.01
Flex., etc. . . .				. .	+	0.36

α Persei, (Ref.)

Dec.	10	N.	+	.14	−	2.3
	18	F.	−	.21	−	3.6
	21	N.	+	.02	−	2.5
	23	T.	+	.06	−	4.1
Mean			+	002	−	3.12
Div.				. .	+	0.14
Flex., etc. . . .				. .	+	1.92

δ Persei.

				s.		″
Nov.	13	E.		.00	+	0.9
	14	T.	+	.31	+	0.7
	18	T.	+	.14	+	0.9
	23	F.	+	.09	−	0.6
	26	F.	−	.16	+	3.0
Mean			+	.076	+	0.98
Div.				. .	+	0.04
Flex., etc.				. .	+	0.36

η Tauri.

June	14	N.	+	.04	−	1.6
	17	N.	+	.07	−	1.7
	19	T.		. .	−	0.5
	21	N.	+	.03	−	1.1
July	14	T.	+	.02	−	0.7
Nov.	13	E.	−	.01	+	2.5
	18	T.	−	.02	−	1.5
	23	F.	+	.01	−	1.4
	26	F.		. .	+	0.6
Dec.	18	F.	+	.01	+	0.6
	19	T.		.00		0.0
	23	T.	-	.06	+	0.6
	25	F.		. .	+	0.7
Mean			+	.009	−	0.27
Div.				. .	−	0.04
Flex., etc.				. .	+	1.05

Persei.

June	14	N.	+	.06	−	1.6
	19	T.	+	.04	−	0.2
July	14	T.	+	.03	−	0.2
Dec.	5	T.	+	.03	−	0.9
	8	F.	+	.03	+	0.2
	9	T.	+	.08	−	1.8
	23	T.		.00	−	0.5
	25	F.	+	.06	+	0.5
Mean			+	.034	−	0.56
Div.				. .	−	0.07
Flex., etc.				. .	+	1.05

Eridani.

July	14	T.	+	.02	−	2.2
Nov.	24	H.	+	.10		0.0
Dec.	1	T.	+	.09	−	1.6
	5	T.	+	.01	−	0.7
	8	F.	−	.05	−	0.3
	9	T.	+	.02	−	0.7
	10	N.		.00	−	0.8
	12	T.		.00	−	1.7
Mean			+	.024	−	1.00
Div.				. .	+	0.15
Flex., etc.				. .	+	0.89

γ Tauri.

June	21	N.	+	.05	−	1.3
July	1	N.	+	.02	−	1.7
	12	N.	−	.02	−	2.3
	14	T.	+	.02	−	0.3
Aug.	17	T.	−	.08	+	1.7
Dec.	18	F.	+	.01	+	0.5
	21	N.	−	.05	−	1.1
Mean			−	.007	−	0.69
Div.				. .	+	0.08
Flex., etc.				. .	+	1.03

ε Tauri.

Jan.	4	A.		. .	−	0.6
Feb.	3	N.	−	.02	+	0.9
	7	A.	+	.15	−	4.7
	11	A.	+	.01	+	0.1
	14	A.	−	.02	+	0.2
	18	A.	−	.12	−	2.9
May	1	N.	−	.01	−	2.2

ε Tauri—Continued.

				s.		″
June	11	E.	+	.01	−	1.3
	21	N.	−	.06		0.0
July	1	N.	+	.02	−	2.0
	12	N.	−	.03	−	1.6
	14	T.	+	.03	+	1.0
Aug.	11	T.	−	.06	+	1.0
Nov.	24	H.	−	.02	+	1.9
Dec.	26	T.	+	.09	−	0.9
Mean			−	.002	−	0.63
Div.				. .	+	0.06
Flex., etc.				. .	+	1.04

α Tauri.

April	18	N.	−	.07	−	0.4
	24	A.	−	.01		. .
	30	N.	−	.07	−	0.4
May	1	N.	−	.03	−	0.4
	11	N.	−	.06	+	0.3
	14	N.	−	.02	+	0.6
June	14	N.	+	.03	+	0.4
	18	E.		. .	+	0.2
	22	E.	−	.04	+	0.3
	25	E.	−	.02	+	2.1
	30	T.	+	.03	−	1.3
July	2	E.		. .	+	1.3
	4	T.	−	.01	−	0.3
	6	E.	−	.09	−	0.1
	17	T.	−	.02	+	0.4
Aug.	11	T.	−	.11	+	2.8
Oct.	5	N.	+	.04	+	1.5
Dec.	26	T.	−	.01	+	0.4
Mean			−	.029	+	0.41
Div.				. .	+	0.08
Flex., etc.				. .	+	1.03

α Tauri, (Ref.)

Dec.	14	N.	+	.09	−	0.5
Div.				. .	+	0.23
Flex., etc.				. .	+	1.24

α Camelopardalis.

Feb.	3	N.	−	.11	+	0.1
	22	N.	+	.18	+	0.2
Aug.	11	T.	+	.45	+	0.9
Dec.	1	T.	+	.16		0.0
Mean			+	.170	+	0.30
Div.				. .	−	0.12
Flex., etc.				. .	+	0.28

α Camelopardalis, (Ref.)

Dec.	10	N.	+	.15	−	0.9
	14	N.	+	.40	−	0.2
	17	N.	+	.55	−	0.8
	21	N.	+	.18	−	0.8
	23	T.	+	.37	−	2.5
Mean			+	.330	−	1.04
Div.				. .	−	0.03
Flex., etc.				. .	+	1.84

α Camelopardalis, S. P.

June	13	T.	+	.24		. .
	18	N.	+	.08	−	0.2
July	13	N.	−	.06	−	0.8
Mean			+	.087	−	0.50
Div.				. .	−	0.05
Flex., etc.				. .	−	0.11

ι Aurigæ.

Feb.	3	N.	−	.01	+	0.5
	7	A.	+	.01	−	0.8
	14	A.		.00	+	1.2

ι Aurigæ—Continued.

				s.		″
	18	A.	−	.10	−	[illegible]
April	17	N.	−	.03	−	[illegible]
	18	N.	−	.03	−	[illegible]
May	18	N.	−	.03	−	[illegible]
July	1	N.	−	.02	−	[illegible]
Dec.	14	N.	−	.04	−	[illegible]
Mean			−	.028	−	[illegible]
Div.				. .	−	[illegible]
Flex., etc.				. .	+	[illegible]

11 Orionis.

Feb.	14	A.	−	.04	+	[illegible]
Dec.	1	T.	−	.09	+	[illegible]
	17	N.	−	.06	−	[illegible]
	18	F.	−	.12	-	[illegible]
	21	N.	−	.16	+	[illegible]
	23	T.	−	.06	-	[illegible]
Mean			−	.088	+	[illegible]
Div.				. .	+	[illegible]
Flex., etc.				. .	+	[illegible]

α Aurigæ.

Feb.	11	A.	−	.03		[illegible]
May	14	N.	+	.03	−	[illegible]
	22	A.	−	.05		. .
June	18	E.	+	.22	+	[illegible]
July	2	E.	+	.21	+	[illegible]
	6	E.	−	.13	+	[illegible]
Nov.	30	F.	−	.02	−	[illegible]
Mean			+	.033	+	[illegible]
Div.				. .	+	[illegible]
Flex., etc.				. .	+	[illegible]

α Aurigæ, (Ref.)

Feb.	12	N.	+	.16	−	1.4
Mar.	11	N.		.00	+	[illegible]
Dec.	10	N.	+	.18	−	[illegible]
	17	N.	+	.04	−	[illegible]
	23	T.	+	.08	−	[illegible]
Mean			+	.092	−	[illegible]
Div.				. .	+	[illegible]
Flex., etc.				. .	+	[illegible]

β Orionis.

Feb.	7	A.	+	.01	−	[illegible]
	11	A.	+	.09	−	[illegible]
April	30	N.		.00		[illegible]
May	21	N.	−	.02	−	[illegible]
July	7	T.		. .	−	1.6
	10	T.	−	.10	−	[illegible]
	15	N.	+	.02	−	[illegible]
	17	T.	−	.01	−	[illegible]
	21	T.	−	.06	−	[illegible]
Mean			−	.009	−	[illegible]
Div.				. .	+	[illegible]
Flex., etc.				. .	+	[illegible]

β Orionis, (Ref.)

Dec.	21	N.	+	.03	−	[illegible]
Div.				. .	−	[illegible]
Flex., etc.				. .	+	[illegible]

β Tauri.

Feb.	3	N.	+	.01	+	[illegible]
	22	N.	−	.01	−	[illegible]
April	27	N.	−	.01	−	[illegible]
	30	N.	+	.05	−	[illegible]
May	1	N.	+	.03	−	1.4
	11	N.	−	.05	−	[illegible]
	14	N.	+	.03	−	[illegible]
	21	N.	−	.05	−	[illegible]
	22	A.	+	.07	−	[illegible]

β Tauri—Continued.

				s.		″
May	26	A.	−	.06	−	0.6
July	6	E.	+	.02	−	0.4
	7	T.		. .	+	0.2
	10	T.	−	.05	−	1.4
	15	N.	−	.10	−	1.2
	21	T.	−	.03	−	0.8
Aug.	12	F.	+	.08	−	1.0
Nov.	2	N.	+	.09	−	1.5
	30	F.	+	.08	+	0.8
Mean			+	.006	−	0.69
Div.				. .	−	0.14
Flex., etc.				. .	+	1.06

β Tauri, (Ref.)

Dec.	5	T.	+	.21	+	0.3
	17	N.	+	.05	−	0.8
	23	T.	−	.04	+	0.1
Mean			+	.073	−	0.13
Div.				. .	−	0.01
Flex., etc.				. .	+	1.27

Groombridge 966.

Dec.	18	F.	−	.60	+	3.0
	21	N.	−	.11	−	1.7
Mean			−	.355	+	0.65
Div.				. .	+	0.18
Flex., etc.				. .	+	0.23

Groombridge 966, S. P.

June	26	E.	+	.16	+	3.0
July	23	N.	−	.41	−	0.1
Mean			−	.125	+	1.45
Div.				. .	+	0.08
Flex., etc.				. .	−	0.01

δ Orionis.

Feb.	22	N.	−	.07	−	0.3
May	1	N.	−	.04	−	1.4
	14	N.	−	.03	−	0.9
	22	A.	+	.01		. .
	26	A.	−	.02	−	2.1
Aug.	12	F.	−	.02	−	1.8
Nov.	2	N.		.00	−	1.7
	30	F.		.00	−	0.2
Mean			−	.021	−	1.14
Div.				. .	+	0.18
Flex., etc.				. .	+	0.96

ε Orionis.

Feb.	7	A.		. .	−	2.6
May	1	N.	−	.01	−	1.7
	11	N.	−	.10	−	1.2
July	21	T.	−	.06	−	0.6
Dec.	5	T.	+	.02	+	2.9
	8	F.	+	.08	+	2.3
	10	N.		.00	−	0.2
	18	F.	+	.05	−	0.3
	23	T.		.00	−	0.3
Mean			−	.002	−	0.19
Div.				. .	−	0.20
Flex., etc.				. .	+	0.96

α Columbæ.

Feb.	11	A.	+	.10	+	4.2
	22	N.	−	.08	+	3.2
Dec.	1	T.	−	.11	+	2.7
	21	N.	−	.06	+	3.4
	23	T.	−	.05	+	2.3
Mean			−	.040	+	3.16
Div.				. .	−	0.27
Flex., etc.				. .	+	0.71

α Orionis.

				s.		″
Feb.	11	A.	−	.07	−	0.4
	14	A.	+	.06	−	0.3
April	27	N.	−	.05	−	0.7
	30	N.	−	.01	−	0.7
May	22	A.	−	.03	−	1.7
July	21	T.	−	.04	−	1.1
Nov.	30	F.	−	.11		. .
Dec.	17	N.	+	.02	−	0.4
	21	N.	−	.04	−	0.4
Mean			−	.019	−	0.74
Div.				. .	+	0.11
Flex., etc.				. .	+	0.99

α Orionis, (Ref.)

Dec.	5	T.	+	.07	+	2.1
	10	N.	+	.03	−	0.8
	18	F.	−	.16	−	1.3
	23	T.		. .	+	0.6
Mean			−	.020	+	0.15
Div.				. .	−	0.08
Flex., etc.				. .	+	1.21

22 Camelopardalis.

Dec.	5	T.	+	.45	−	0.9
	8	F.	+	.41	−	0.6
	10	N.	+	.32	−	0.2
	17	N	−	.02	−	1.3
	18	F.	+	.25	−	0.4
	21	N.	+	.16	−	1.4
Mean			+	.262	−	0.80
Div.				. .	+	0.03
Flex., etc.				. .	+	0.26

22 Camelopardalis, S. P.

June	27	T.	+	.60	−	0.7
July	23	N.	+	.28	−	0.8
Mean			+	.440	−	0.75
Div.				. .	+	0.03
Flex., etc.				. .	−	0.08

μ Geminorum.

Jan.	31	A.		. .	−	0.6
Dec.	10	N.	−	.05	−	0.9
	14	N.	−	.02	−	1.4
Mean			−	.035	−	0.97
Div.				. .		0.00
Flex., etc.				. .	+	1.05

γ Geminorum.

Feb.	3	N.	−	.02	+	0.2
	14	A.	−	.06		. .
	18	A.	−	.06		0.0
	19	Ha.	−	.05	+	0.3
May	21	N.	−	.09	−	1.2
June	1	N.	−	.01	−	1.0
	15	N.	−	.03	−	1.3
Nov.	30	F.	−	.10	−	2.1
Dec.	5	T.	−	.02	−	1.1
	8	F.	−	.03	−	0.7
	17	N.		.00	−	0.2
Mean			−	.041	−	0.71
Div.				. .	+	0.08
Flex., etc.				. .	+	1.03

γ Geminorum, (Ref.)

Dec.	10	N.	+	.02	−	1.5
Div.				. .	+	0.22
Flex., etc.				. .	−	1.25

51 (H.) Cephei.

Jan.	31	A.		. .	−	1.6
Feb.	11	A.	+	.63	−	0.6

51 (H.) Cephei—Continued.

				s.		″
Feb.	14	A.	+	.91	−	0.5
	18	A.	+	.81		. .
Oct.	8	N.		. .	+	1.4
Dec.	5	T.		. .	−	1.2
	8	F.		. .	+	0.5
	10	N.		. .	−	0.5
Mean			+	.783	−	0.36
Div.				. .	+	0.28
Flex., etc.				. .	+	0.15

51 (H.) Cephei, S. P.

May	8	N.	+	0.28	−	2.0
June	15	N.		. .	−	0.4
	27	T.	+	1.98	−	1.3
July	4	T.		. .	−	1.0
	18	T.	+	1.35	−	0.4
	25	T.		. .	−	0.7
	31	E.		. .	−	1.3
Aug.	7	E.		. .	−	1.5
	10	F.		. .	−	2.3
	12	T.	+	1.31	−	0.5
	13	F.	+	0.59	−	0.5
	18	E.		. .	−	1.5
Sept.	30	F.	+	1.13	−	0.1
Oct.	5	N.		. .	−	1.0
	6	F.		. .	−	0.9
Mean			+	1.107	−	1.01
Div.				. .	+	0.16
Flex., etc.				. .	−	0.08

α Canis Majoris.

May	30	E.	−	.18	−	1.9
June	5	E.	−	.02	+	1.1
	12	E.	−	.12	−	1.4
	19	E.		. .	+	1.2
Mean			−	.067	−	0.25
Div.				. .	+	0.17
Flex., etc.				. .	+	0.86

ε Canis Majoris.

Feb.	12	Ha.		.00	+	1.0
	14	A.	−	.19		. .
Mar.	19	E.	−	.14	−	1.4
June	19	E.		. .	+	1.2
Aug.	14	T.	−	.10	−	1.2
Oct	8	N.	+	.08		. .
Dec.	21	N.	−	.03	−	0.6
Mean			−	.063	−	0.20
Div.				. .	−	0.22
Flex., etc.				. .	+	0.76

δ Canis Majoris.

Jan.	30	A.	−	.06		0.0
Feb	7	A.	+	.26	+	1.7
	14	A.	−	.13	+	2.0
June	12	E.	−	.17	−	0.8
Aug.	14	T.	−	.23	−	0.3
Sept.	10	F.		.00	+	3.4
Nov.	6	E.	−	.10	+	2.1
Dec.	18	F.		. .	+	3.2
Mean			−	.061	+	1.67
Div.				. .	−	0.16
Flex., etc.				. .	+	0.78

δ Geminorum.

Jan.	30	A.	−	.14	−	0.4
	31	A.		. .	−	0.3
Feb.	7	A.	+	.01	−	0.8
	11	A.	+	.03	−	0.1
	14	A.	+	.03	+	0.9
Mar.	18	Ha.		. .	−	1.3
	19	E.	−	.03	+	0.1
Aug.	21	T.		. .		0.0

δ GEMINORUM—Continued.

				s.		″
Oct.	8	N.	−	.10	+	2.0
	12	N.	−	.04		0.0
Nov.	6	E.	−	.10	+	2.9
	9	N.	−	.03		. .
Mean			−	.041	+	0.21
Div.				. .	+	0.01
Flex., etc.				. .	+	1.05

67 PIAZZI.

Mar.	16	Ha.	−	.12	−	3.0
Div.				. .	+	.01
Flex., etc.				. .	+	.26

67 PIAZZI, S. P.

Oct.	5	N.	−	.34	+	2.0
	6	F.	+	.64	+	2.5
	13	F.	−	.36		. .
	17	F.	+	.11	+	3.4
Mean			+	.002	+	2.63
Div.				. .	+	0.03
Flex., etc.				. .	−	0.08

α² GEMINORUM.

Feb.	19	Ha.	+	.21	−	1.0
Mar.	18	Ha.	+	.20	−	1.2
	31	A.	+	.25		. .
May	30	E.	+	.23	−	0.1
June	1	N.	+	.26	−	0.2
	6	T.	+	.22	+	0.1
	12	E.	+	.20	−	2.9
Aug.	9	F.	+	.44	−	1.0
	11	T.	+	.26	+	1.6
	13	E.	+	.43	−	0.1
	14	T.	+	.32	+	0.1
	17	E.	+	.43	+	1.4
Oct.	17	T.	+	.18	−	3.7
	23	F.	+	.23	+	1.8
	26	E.	+	.22	+	0.8
	28	T.	+	.33	+	3.1
	29	E.	+	.18	−	0.2
Nov.	2	N.	+	.25	−	1.3
	6	E.	+	.24	+	4.6
Dec.	2	F.	+	.30	+	0.6
Mean			+	.269	+	0.13
Div.				. .	−	0.06
Flex., etc.				. .	+	1.05

α CANIS MINORIS.

Feb.	12	Ha.	−	.13	+	0.3
	24	N.	−	.13		. .
Mar.	16	Ha.		. .	−	1.3
	31	A.	−	.09	−	1.6
April	8	N.	−	.15	−	0.3
May	22	A.	−	.21	−	1.1
	26	A.	−	.26		. .
	27	E.	+	.02	+	2.3
June	6	T.	−	.11	+	0.1
	12	E.	−	.13	−	0.6
	15	N.	−	.06	−	0.3
	19	E.		. .	−	0.8
	23	E.	−	.09	−	0.3
	24	T.	−	.06	−	0.5
Aug.	12	F.	−	.17	−	1.4
	13	E.	−	.10	−	1.0
	14	T.	−	.16	+	0.1
	17	E.	+	.02	−	0.1
	21	T.		. .	−	0.3
Oct.	8	N.	−	.08	+	1.6
	13	N.	−	.05	+	1.2
	17	T.	−	.22	−	0.1
	24	T.	−	.16	+	1.0
	26	E.	−	.10	+	0.5
	28	T.	−	.12	+	0.2
	29	E.	−	.14	+	0.9
Nov.	2	N.		.00	−	0.7

α CANIS MINORIS—Contined.

				s.		″
Nov.	6	E.	−	.22	+	2.8
Dec.	2	F.	−	.03	+	0.9
	18	F.	−	.18	+	0.9
Mean			−	.115	+	0.04
Div.				. .	+	0.14
Flex., etc.				. .	+	0.98

α CANIS MINORIS, (Ref.)

April	27	N.	−	.08	+	0.5
May	30	E.	+	.04	+	5.1
June	1	N.	+	.01	−	1.2
Dec.	10	N.		. .	−	0.2
Mean			−	.010	+	0.38
Div.				. .	−	0.13
Flex., etc.				. .	+	1.21

β GEMINORUM.

Feb.	19	Ha	−	.04	−	0.8
	22	N.	−	.07		. .
Mar.	18	Ha.	−	.02	−	1.5
April	8	N.	−	.03	−	1.6
June	1	N.	−	.11		0.0
	6	T.	−	.08	−	0.5
	12	E.	−	.07	−	0.1
	13	T.	−	.07	−	0.4
	15	N.	+	.02	−	0.3
	20	T.	+	.01	−	0.2
Aug.	9	F.	+	.03	−	1.0
	12	F.	−	.10	−	2.1
	13	E	+	.09	−	0.9
	14	T.	−	.01	+	0.8
	17	E.	+	.04	−	0.6
	21	T.		. .	−	0.3
Oct.	8	N.	−	.05	+	1.4
	12	N.	−	.03	+	1.0
	17	T.	−	.06	−	4.1
	23	F.	−	.21	+	5.2
	24	T.	−	.03	+	0.8
	26	E.	−	.05	+	2.1
	28	T.	+	.06	−	1.3
	29	E.	−	.07	+	1.3
Nov.	2	N.	+	.02	−	1.2
	6	E.	−	.09	+	1.0
Dec.	1	T.	−	.05	−	1.3
Mean			−	.035	−	0.22
Div.				. .	−	0.15
Flex., etc.				. .	+	1.06

ι GEMINORUM, (Ref.)

April	27	N.	+	.02	−	0.6
Dec.	10	N.	+	.02	−	1.1
Mean			+	.020	−	0.85
Div.				. .		0.01
Flex., etc.				. .	+	1.27

θ GEMINORUM.

Jan.	30	A.	−	.15	−	2.1
Mar.	16	Ha.		. .	−	2.2
	18	Ha.		.02	−	2.1
Oct.	23	F.	−	.15	+	3.0
	24	T.	−	.05	−	0.6
	28	T.		.03	+	0.5
	29	E.	−	.16	−	2.4
Nov.	5	N.	−	.24	−	4.1
	6	E.	−	.21	−	1.0
	9	N.	−	.11	−	2.4
	11	T.	−	.15	−	1.3
Mean			−	.120	−	1.54
Div.				. .	−	0.16
Flex., etc.				. .	+	1.06

ρ ARGUS.

				s.		″
Nov	2	N.	−	.05	−	[illegible]
	9	N.	−	.01		0.0
	11	T.	+	.13	−	[illegible]
	12	N.	−	.14	−	[illegible]
	18	T.	−	.07	−	[illegible]
Dec	1	T.	−	.01		.
	5	F.	−	.10		.
	18	F.	−	.02	−	[illegible]
Mean			−	.034	−	[illegible]
Div.				.	−	[illegible]
Flex., etc.				. .	+	[illegible]

ε HYDRÆ.

Feb	7	A.	+	.04		.
	11	A.	−	.03		
	18	A.	−	.01		. .
Mar.	18	Ha	−	.03	−	[illegible]
	23	Ha.	−	.02	+	[illegible]
April	1	Ha	−	.02	+	[illegible]
	3	A		. .	−	[illegible]
Sept.	11	T.	+	.01		0.0
Oct.	8	N	−	.04	+	[illegible]
	28	T.	−	.16	−	[illegible]
	29	E.	−	.07	−	[illegible]
Nov.	5	N.	−	.08	−	[illegible]
	11	T.	−	.12	+	[illegible]
Dec.	2	F.	−	.04	+	[illegible]
Mean			−	.044	+	[illegible]
Div.				. .	+	[illegible]
Flex. etc.				. .	+	[illegible]

ι URSÆ MAJORIS.

Feb.	12	Ha.	+	.10	−	[illegible]
	13	E.	−	.36	−	[illegible]
	14	A.	−	.14	−	[illegible]
	19	Ha.	+	.10	−	[illegible]
Mar.	16	Ha.	−	.10	−	[illegible]
	18	Ha.	+	.07	−	[illegible]
	19	E.	+	.08	−	[illegible]
	23	Ha.	+	.01	−	[illegible]
April	1	Ha.	−	.01	+	[illegible]
Nov.	6	E.	−	.14	+	[illegible]
Mean			−	.039	−	[illegible]
Div.				. .	+	[illegible]
Flex., etc.				. .	+	[illegible]

ι URSÆ MAJORIS, (Ref.)

Nov.	5	N.	+	.09	−	[illegible]
	12	N.	+	.07	−	[illegible]
	14	T.	+	.27	−	[illegible]
	15	T.	+	.16	−	[illegible]
Mean			+	.148	−	[illegible]
Div.				. .	+	[illegible]
Flex., etc.				. .	−	[illegible]

σ² URSÆ MAJORIS.

Feb	12	Ha	−	.20	−	[illegible]
	13	E	−	.36	−	[illegible]
	19	Ha.	+	.18	−	[illegible]
Mean			−	.127	−	[illegible]
Div.				. .	−	[illegible]
Flex., etc				. .	−	[illegible]

σ² URSÆ MAJORIS, S. P

Aug.	12	T.	+	.25	−	[illegible]
	19	T.	+	.09	+	[illegible]
Sept.	5	T	+	.19	+	[illegible]
	7	F.	+	.27	+	[illegible]
	28	Ha.	−	.09	−	[illegible]
	30	F.	+	.10	−	[illegible]

σ^2 Ursæ Majoris—Continued.

				s.		″
Oct.	1	T.		.00	+	3.1
	6	F.	−	.21	+	3.7
	24	T.	+	.19		. .
Mean			+	0.88	+	1.18
Div.				. .	+	0.01
Flex., etc.				. .	−	0.09

κ Cancri.

Feb.	11	A.	+	.03	+	0.5
	14	A.	+	.18	+	0.1
	18	A.	+	.10	−	1.0
Mar	16	Ha.		. .	−	1.6
	18	Ha.	+	.03	−	2.4
	19	E.	+	.13	+	0.1
	23	Ha.		.00	−	1.1
April	1	Ha.	−	.01	−	0.2
	8	N.	+	.05	+	0.6
Nov.	5	N.	−	.04	−	2.0
	12	N.	−	.06	−	1.2
	14	T.	−	.04	+	1.0
	18	T.	+	.04		0.0
	23	F.	−	.03	−	0.5
Mean			−	.029	−	0.51
Div.				. .	+	0.02
Flex., etc.				. .	+	1.01

ι Draconis.

Nov.	5	N.	+	.31	−	1.9
	6	E.	+	.33	+	0.9
Mean			+	.570	−	0.50
Div.				. .	+	0.43
Flex., etc.				. .	+	0.18

ι Draconis, S. P.

Aug.	13	F.	−	1.57*r*	−	0.3
Oct.	12	N.	−	0.40	+	0.5
Nov.	5	N.	−	0.14	−	2.0
Mean			−	.270	−	0.60
Div.				. .	+	0.10
Flex., etc.				. .	+	0.04

α Hydræ.

Feb.	7	A.		. .	+	0.3
	13	E.	−	.17		0.0
	14	A.	−	.02	+	0.5
	19	Ha.	+	.02	+	0.1
	23	Ha.	+	.03	+	1.7
April	8	N.	−	.03	+	1.2
July	1	T.	+	.02	−	0.1
	3	E.	+	.04	+	1.2
	7	E.	+	.08	+	0.9
	14	E.	+	.18	−	0.3
Sept.	11	T.	−	.01	+	1.0
	17	T.	−	.04	−	1.9
Nov.	6	E.		.00	+	1.8
Mean			−	.083	+	0.51
Div.				. .	+	0.43
Flex., etc.				. .	+	0.93

α Hydræ, (Ref.)

Mar.	30	N.		. .	+	0.5
Nov.	5	N.		. .	+	2.3
	12	N.	−	.08	+	1.3
Mean			−	.080	+	1.37
Div.				. .	−	0.30
Flex., etc.				. .	+	1.15

d Ursæ Majoris.

Nov.	18	T.	+	.56	+	0.2
	23	F.		. .	−	0.3
Mean			+	.560	−	0.05
Div.				. .	+	0.06
Flex., etc.				. .	+	0.25

d Ursæ Majoris, S. P.

				s.		″
Aug	26	T.	+	.18	+	1.3
	29	T.	+	.42	−	0.7
Oct.	7	T.	+	.14	+	2.0
	29	E.	+	.50	+	3.2
Nov.	3	E.	+	.32	+	0.5
	5	N.	+	.15	+	0.9
	6	E.	+	.36	+	1.8
Mean			+	.296	+	1.29
Div.				. .	+	0.05
Flex., etc.				. .	−	0.07

ε Leonis.

Feb.	14	E.	+	0.1	+	0.1
April	21	N.		. .	+	1.4
Mean			+	.010	+	0.75
Div.				. .	−	0.07
Flex., etc.				. .	+	1.05

ε Leonis, (Ref.)

Mar.	19	E.	−	.14	+	1.7
April	21	N.	+	.01		0.0
Mean			−	.065	+	0.85
Div.				. .	+	0.20
Flex., etc.				. .	+	1.26

μ Leonis.

Feb.	14	A.	+	.03		. .
April	6	N.	+	.03	−	0.1
	18	N.	+	.24*r*	−	0.3
	21	N.	−	.02	−	1.4
Mean			+	.070	−	0.60
Div.				. .	−	0.16
Flex., etc.				. .	+	1.06

α Leonis.

Feb.	18	A.	−	.01		. .
Mar.	18	Ha.	−	.02	−	0.2
	19	E.	−	.03	−	0.2
July	7	E.	−	.05	+	0.3
Sept.	16	F.		. .	+	1.1
	17	T.		.00	−	0.8
	18	F.	−	.11	+	1.0
	28	T		. .	+	0.6
	29	F	−	.01	+	2.2
	30	T.	−	.10	+	2.1
Mean			−	.054	+	0.68
Div.				. .	+	0.04
Flex., etc.				. .	+	1.02

α Leonis, (Ref.)

April	6	N.	+	.12	+	0.5
	21	N.	−	.10	+	1.3
Mean			+	010	+	0.90
Div.				. .	+	0.13
Flex., etc.				. .	+	1.23

32 Ursæ Majoris.

Mar.	18	Ha.	+	.06	−	0.9
	30	N.	−	.09	−	1.2
April	28	E.	+	.08	−	0.6
Mean			+	.017	−	0.90
Div.				. .	−	0.12
Flex., etc.				. .	−	0.28

32 Ursæ Majoris, S. P.

Aug.	5	T.		. .	−	0.5
Oct.	1	T.	+	.13	+	3.8
	17	T.	+	.13	+	1.0
	29	E.	+	.31	+	6.5
	30	F.	−	.31	+	0.7
Nov.	3	E.	+	.18	+	1.5
	6	E.	+	.01	+	1.0
Mean			+	.075	+	1.71
Div.				. .	−	0.06
Flex., etc.				. .	−	0.11

γ^1 Leonis.

				s.		″
Feb.	7	A.	−	.01		. .
	11	A.	−	.16		. .
Mar.	18	Ha.	+	.04	−	0.8
April	30	N.	+	.03	−	1.0
June	24	T.		. .	+	0.1
July	7	E.	−	.02	−	0.3
	14	E.	+	.21	−	1.2
	15	T.	+	.02		. .
	18	F.	+	.05	+	0.9
Sept.	28	T.		. .	−	2.1
	29	F.	−	.07	−	0.1
	30	T.		.00	−	0.7
Mean			+	.009	−	0.58
Div.				. .	+	0.04
Flex., etc.				. .	+	1.04

γ^1 Leonis, (Ref.)

April	21	N.	−	.04	−	0.4
May	1	N.	+	.07	−	0.7
	4	N.	−	.04		0.0
Mean			−	.003	−	0.37
Div.				. .	+	0.25
Flex., etc.				. .	+	1.04

9 Draconis.

April	21	N.	−	.43	−	1.9
	27	N.	−	.22	−	1.8
	30	N.	−	.26	−	1.8
Mean			−	.303	−	1.83
Div.				. .	+	0.15
Flex., etc.				. .	+	0.22

9 Draconis, (Ref.)

May	4	N.	−	.02	−	0.6
	11	N.	−	.50	−	0.7
Mean			−	.260	−	0.65
Div.				. .	−	0.17
Flex., etc.				. .	+	1.78

9 Draconis, S. P.

Sept.	28	Ha.	−	.16	+	2.0
Oct.	5	N.	−	.20	+	0.4
	7	T.	+	.17	+	0.7
	12	N.		.00	+	2.3
	17	T.	+	.08	+	1.6
	26	E.	+	.07	−	0.2
	28	T.	+	.44	−	0.9
Nov.	6	E.	−	.18	+	1.1
Mean			+	.028	+	0.88
Div.				. .	+	0.07
Flex., etc.				. .		0.00

ρ Leonis.

Feb.	12	Ha.	+	.06	−	0.7
	13	E.	+	.11	−	1.7
	14	A.	+	.01	−	1.0
	19	Ha.	+	.04	−	0.8
Mar.	18	Ha.	−	.02	−	0.8
	24	A.	−	.06	−	1.1
	30	N.		. .	−	0.7
April	1	Ha.	−	.07	−	1.0
	6	N.	+	.01	−	0.6
	21	N.	−	.10	−	1.9
	30	N.	−	.12	−	2.1
Mean			−	.014	−	1.13
Div.				. .	+	0.04
Flex., etc.				. .	+	1.01

l LEONIS.

				s.		″
Mar.	18	Ha.	+	.06	−	1.0
	24	A.	+	.15	−	2.0
April	1	Ha.	+	.04	−	1.0
	6	N.	+	.06		1.1
	27	N.	+	.10	−	1.2
May	1	N.	+	.07	−	1.3
	4	N.	+	.05	−	2.2
Mean			+	.076	−	1.40
Div.				. .	+	0.02
Flex., etc.				. .	+	1.01

α URSÆ MAJORIS.

Mar.	30	N.	+	.05	−	2.2
April	1	Ha.	−	.19	−	1.7
	27	N.	+	.03	−	1.8
Oct.	11	N.	+	.07		0.2
Mean			−	.010	−	1.48
Div.				. .	−	0.22
Flex., etc.				. .	+	0.29

α URSÆ MAJORIS, (Ref.)

April	21	N.	−	.05	−	1.6
May	4	N.	+	.07	−	1.3
	11	N.	−	.07	−	1.2
	18	N.	+	.06	−	1.5
June	1	N.	+	.19	−	2.6
Mean			+	0.40	−	1.64
Div.				. .	−	0.08
Flex., etc.				. .	+	1.85

δ LEONIS.

Mar.	30	N.	−	.03	−	1.0
April	23	E.		. .	−	1.0
May	4	N.		.00	−	2.6
Oct.	11	N.	−	.01	+	3.3
	18	E.		. .	+	0.3
Dec.	5	T.		.00	+	0.3
Mean			−	.010		0.35
Div.				. .	+	0.03
Flex., etc.				. .	+	1.04

δ LEONIS, (Ref.)

April	27	N.	+	.01	−	0.1
May	11	N.	−	.14		0.3
	18	N.		. .	−	0.7
	21	N.	−	.08	+	0.8
June	1	N.	+	.04	−	0.8
Mean				.042	−	0.22
Div.				. .	+	0.27
Flex., etc.				. .	+	1.26

δ CRATERIS.

Mar.	30	N.	+	.01	−	1.3
April	21	N.	+	.12	−	2.2
May	1	N.	+	.02	−	1.5
	18	N.	−	.02	−	2.6
June	1	N.	+	.01	−	2.0
Mean			+	.028	−	1.92
Div.				. .	+	0.15
Flex., etc.				. .	+	0.89

τ LEONIS.

Mar.	24	A.	−	.01		. .
May	1	N.	−	.02	−	1.7
Dec.	5	T.	−	.04	−	2.3
Mean			−	.023	−	2.00
Div.				. .	+	0.15
Flex., etc.				. .	+	0.98

λ DRACONIS.

				s.		
April	21	N.	+	.24	−	2.4
	23	E.	+	.18	−	1.4
May	1	N.	+	.42	−	2.3
	11	N.	−	.13	−	1.9
	21	N.	+	.19	−	3.5
June	1	N.	+	.41	−	2.4
Mean			+	.218	−	2.32
Div.				. .	+	0.06
Flex., etc.				. .	+	0.26

λ DRACONIS, (Ref.)

Mar.	19	E.		. .	−	1.6
	30	N.	+	.19	−	2.3
May	18	N.	+	.15	−	3.1
Mean			+	.170	−	2.40
Div.				. .	−	0.10
Flex., etc.				. .	+	1.82

λ DRACONIS, S. P.

Sept	4	Ha.	+	.37	−	1.0
Oct.	5	N.	+	.10	+	0.7
	6	F.	+	.01	+	2.2
	29	E.	+	.24	+	2.7
	30	F.	−	.04	+	0.7
Nov.	3	E.	+	.48	+	0.7
	6	E.	+	.11	+	3.4
Mean			+	.181	+	1.35
Div.				. .	+	0.05
Flex., etc.				. .	−	0.07

υ LEONIS.

Mar.	30	N.	−	.05	−	0.6
April	21	N.		.03	−	1.3
	27	N.		.08	−	1.5
May	1	N.		.02		0.7
	11	N.	−	.05	−	2.3
	21	N.		.09		. .
Mean				.052	−	1.28
Div.				. .	+	0.18
Flex., etc.				. .	+	0.96

β LEONIS.

Mar.	24	A.		.04	−	0.7
May	18	N.	−	.04	−	0.7
Aug.	15	T.	−	.00	+	2.6
	18	E.	+	.18	+	1.8
Oct.	8	F.		. .	+	0.5
	11	N.		.08		. .
	18	E.		. .	+	2.0
	22	F.	−	.02	+	0.9
	25	E.	+	.03	−	1.7
	28	E.	+	.01	+	2.0
Nov.	2	E.		.00	−	0.6
Mean				.050	+	0.64
Div.				. .	+	0.08
Flex., etc.				. .	+	1.03

β LEONIS, (Ref.)

May	1	N.	−	.06	+	1.3
	21	N.	−	.02	+	1.4
June	1	N.	+	.02	+	0.1
Mean			−	.020	+	0.93
Div.				. .	+	0.20
Flex., etc.				. .	+	1.24

γ URSÆ MAJORIS.

April	21	N.	+	.15	−	0.3
	23	E.	−	.09	−	0.2
May	11	N.	+	.03	−	1.9
	21	N.	−	.03	−	0.9
June	1	N.	+	.01	−	0.9

γ URSÆ MAJORIS—Continued.

				s.		
Oct.	18	E.	+	.11		0.0
	25	E.	+	.02	−	1.0
	28	E.	+	.01	−	[illegible]
Mean			+	.026	−	[illegible]
Div.				. .	−	0.24
Flex., etc.				. .	+	[illegible]

γ URSÆ MAJORIS, (Ref.)

Mar.	30	N.	+	.16	−	[illegible]
April	27	N.	+	.05	−	[illegible]
Mean			+	.105	−	[illegible]
Div.				. .	+	[illegible]
Flex., etc.				. .	+	[illegible]

o VIRGINIS.

Mar.	30	N.	−	.11	−	[illegible]
April	23	E.		. .	−	[illegible]
	27	N.	−	.04	−	1.0
May	1	N.	−	.03	−	[illegible]
	11	N.	−	.16	−	[illegible]
June	1	N.	−	.13	−	[illegible]
Mean			−	.094	−	[illegible]
Div.				. .	+	[illegible]
Flex., etc.				. .	+	[illegible]

4 DRACONIS.

Mar.	30	N.	−	.14	−	3.1
April	21	N.	−	.23	−	[illegible]
	23	E.	−	.40	−	[illegible]
	24	A.	−	.54		. .
	27	N.	−	.18	−	2.1
May	1	N.	−	.19	−	[illegible]
	11	N.	−	.49	−	[illegible]
June	1	N.	−	.16	−	1.4
Mean			−	.291	−	[illegible]
Div.				. .	+	[illegible]
Flex., etc.				. .		[illegible]

4 DRACONIS, S. P.

Sept.	18	Ha.	−	.27	−	[illegible]
Oct.	7	T.	−	.21	+	[illegible]
Mean			−	.240	+	[illegible]
Div.				. .	+	[illegible]
Flex., etc.				. .	+	[illegible]

η VIRGINIS.

April	21	N.	−	.01	−	[illegible]
	24	A.	+	.05		. .
May	1	N.	+	.01	−	[illegible]
	21	N.	+	.02	−	[illegible]
July	4	T.	−	.02	−	1.4
Nov.	4	N.	+	.14		. .
Mean			+	.028	−	[illegible]
Div.				. .	−	[illegible]
Flex., etc.				. .	+	[illegible]

η VIRGINIS, (Ref.)

May	11	N.	−	.05	+	2.1
June	1	N.	+	.05		0.0
Mean				.000	−	[illegible]
Div.				. .	−	[illegible]
Flex., etc.				. .	+	[illegible]

β CORVI.

May	4	N.	+	.14	−	[illegible]
	11	N.	+	.10	−	[illegible]
	18	N.	+	.09	−	[illegible]
	22	A.	+	.01		. .

β CORVI—Continued.

				s		″
June	12	E.	+	.12		0.0
	26	E.	+	.14	−	0.1
Mean			+	.100	−	1.10
Div.				. .	−	0.08
Flex., etc.				. .	−	0.81

κ DRACONIS.

May	1	N.	+	.04	−	2.0
	21	N.	+	.02	−	2.1
	26	A.	−	.06		. .
June	4	N.	−	.17		. .
	18	N.	+	.04	−	2.7
Mean			−	.026	−	2.27
Div.				. .	+	0.07
Flex., etc.				. .	+	0.26

κ DRACONIS, (Ref.)

April	21	N.	−	.25	−	2.7
	24	A.	−	.13	−	1.9
	27	N.	+	.16	−	1.4
Mean			−	0.40	−	2.00
Div.				. .	−	0.10
Flex., etc.				. .	+	1.82

κ DRACONIS, S. P.

Nov.	3	E.	+	.10		. .
	5	N.	−	.32	+	1.4
	7	T.	+	.24	+	4.3
	13	E.	+	.91	+	3.6
	14	T.	+	.22	+	2.1
	18	T.	−	.04	+	3.6
	19	N.	+	.24	+	1.3
	30	F.	−	.10	+	4.1
Mean			+	.156	+	2.91
Div.				. .	+	0.05
Flex., etc.				. .	−	0.06

α CANUM VENATICORUM.

lar.	30	N.	+	.14	+	0.2
pril	24	A.	−	.05	−	0.9
lay	26	A.	−	.12	−	0.7
une	18	N.	−	.05	−	0.9
	22	N.	−	.02	−	0.3
	26	E.	+	.17	+	1.5
	27	T.	+	.06	−	1.8
uly	7	T.	+	.03	+	0.8
ug.	12	T.	−	.05	+	0.4
	13	F.	+	.02	+	2.1
	15	T.	+	.11	+	0.9
	18	E.	+	.19	+	0.7
	19	T.	+	.01	+	1.6
ept.	5	T.	+	.11	+	0.2
ct.	16	T.	−	.20		. .
	23	T.	+	.05	−	1.0
	25	E.	−	.01	−	0.7
	28	E.	+	.03	−	2.2
	29	F.		. .	+	2.6
ov.	2	E.	+	.01	+	0.6
	6	T.	+	.09	+	0.9
	9	E.		. .	+	0.9
	11	N.	−	.02	−	1.0
	12	E.	+	.08	−	1.4
	13	T.	+	.01	+	2.5
lean			+	.026	+	0.20
iv.				. .		0.00
lex., etc.				. .	+	0.71

32¹ CAMELOPARDALIS.

lay	1	N.	−	7.70	−	21.6
	11	N.	−	8.88	−	20.7
	18	N.	−	7.44	−	20.5

32¹ CAMELOPARDALIS—Continued.

				s.		″
May	21	N.	−	7.15	−	20.7
	30	E.	−	8.38	−	20.5
Mean			−	7.914	−	20.80
Div.				. .	+	0.31
Flex., etc.				. .	+	0.17

32¹ CAMELOPARDALIS, (Ref.)

June	1	N.	−	6.64	−	20.90
Div.				. .	−	0.32
Flex., etc.				. .	+	1.71

32¹ CAMELOPARDALIS, S. P.

Oct.	12	N.	−	7.70	+	22.5
	13	F.	−	9.64	+	22.1
	23	F.	−	7.96	+	21.9
	24	T.	−	7.32	+	19.9
	26	E.	−	7.32	+	20.5
	28	T.	−	7.32	+	21.3
Nov.	5	N.	−	8.35	+	18.3
Mean			−	7.944	+	20.93
Div.				. .	+	0.13
Flex., etc.				. .	+	0.06

32² CAMELOPARDALIS.

May	1	N.	−	.14	−	3.0
	11	N.	−	.46	−	2.8
	18	N.	+	.31	−	2.1
	21	N.	+	.70	−	2.4
	30	E.	−	.20		. .
Mean			+	.042	−	2.58
Div.				. .	+	0.31
Flex., etc.				. .	+	0.17

32² CAMELOPARDALIS, (Ref.)

June	1	N.	+	.69	−	3.0
Div.				. .	−	0.32
Flex., etc.				. .	+	1.71

32² CAMELOPARDALIS, S. P.

Oct.	12	N.	+	.56	+	3.5
	13	F.	−	.74	+	2.5
	23	F.	−	.76	+	0.2
	24	T.	+	.20	−	0.1
	26	E.	+	.06	+	1.3
	28	T.	−	.04	+	1.6
Nov.	5	N.	−	.50		0.0
Mean			−	.177	+	1.29
Div.				. .	+	0.13
Flex., etc.				. .	+	0.06

θ VIRGINIS.

Mar.	19	E.	−	.13	−	1.0
April	21	N.	+	.05	−	2.3
	27	N.	+	.05	−	1.9
May	26	A.	+	.06	−	1.0
June	12	E.	−	.01	+	0.1
	13	T.	+	.03		. .
	26	E.	+	.06	+	1.9
Mean			+	.016	−	0.70
Div.				. .	+	0.30
Flex., etc.				. .	+	0.94

α VIRGINIS.

Jan.	30	A.	+	.10		. .
Mar.	30	N.	−	.02	−	0.8
	31	A.	+	.04	−	0.7
May	11	N.		.00	−	1.3
	26	A.	−	.05		. .
June	27	T.	−	.10		. .
	28	T.		. .		0.0
July	1	T.	−	.10	−	1.3

α VIRGINIS—Continued.

				s.		″
July	18	T.	−	.07	−	0.3
	23	N.	−	.11	−	1.0
Aug.	18	E.	+	.01	+	0.2
	26	T.	−	.11		. .
	29	T.	−	.04	−	1.8
Sept.	5	T.	−	.23	−	3.4r
	11	F.		.00	−	1.8
	12	T.	−	.07		. .
	19	F.	+	.07	−	2.6
Oct.	28	E.	+	.04	−	2.1
	29	F.	+	.13	−	3.0
Nov.	2	E.	+	.01	+	0.1
	9	E.		. .	−	0.2
	12	E.	−	.06	−	1.4
	17	T.		.00	−	1.6
	20	T.	−	.04		. .
Dec.	8	T.	+	.07	+	0.7
Mean			−	.023	−	1.17
Div.				. .	+	0.32
Flex., etc.				. .	+	0.93

α VIRGINIS, (Ref.)

May	21	N.	−	.03	+	0.7
	22	A.		. .	−	0.4
June	1	N.	+	.07	+	0.5
	22	N.	+	.01	+	1.9
July	2	N.	−	.04	+	0.8
Mean			+	.002	−	0.70
Div.				. .	−	0.21
Flex., etc.				. .		. .

ζ VIRGINIS.

Jan.	30	A.	+	.01		. .
Feb.	11	A.	−	.03	−	0.7
April	8	N.		.00	+	0.6
May	16	E.	−	.05	+	1.6
	26	A.	+	.01	−	1.0
June	1	N.		.00	+	0.2
	5	E.	−	.01	−	0.4
	8	N.		. .	−	1.2
	12	E.	−	.02	−	0.1
	15	N.	−	.09		. .
	17	T.		. .	+	1.1
	27	T.	−	.06	+	0.2
	28	T.		. .	−	0.5
	29	N.	−	.07	−	0.6
July	11	T.	−	.07	+	0.3
	18	T.	−	.06	+	2.1
	25	T.	−	.05	+	1.3
Aug.	31	F.	−	.04	+	2.6
Nov.	22	N.		.00	−	0.7
Mean			−	.033	+	0.26
Div.				. .	+	0.18
Flex.. etc.				. .	+	0.96

ζ VIRGINIS, (Ref.)

May	21	N.	+	.05	+	1.70
	22	A.		.00		. .
Mean			+	.025	+	1.70
Div.				. .	−	0.22
Flex., etc.				. .	+	1.14

η URSÆ MAJORIS.

May	11	N.	−	.23	−	1.6
	16	E.	+	.11	+	2.2
	21	N.	+	.02	−	1.4
	26	A.	−	.08	−	0.4
June	22	N.	−	.04	−	1.0
Nov.	2	E.	+	.08	−	0.1
	6	T.	+	.09	−	0.4
	11	N.	−	.01	−	2.4
Mean			−	.008	−	0.74
Div.				. .	+	0.01
Flex., etc.				. .	+	0.35

η URSÆ MAJORIS, (Ref.)

				s.		″
April	8	N.	+	.15	−	1.9
	27	N.	−	.10	+	0.4
May	1	N.	+	.15		0.0
June	5	E.	−	.02:	−	5.5:
	8	N.	+	.26	−	0.8
	12	E.	−	.06	−	1.0
Mean			+	.057	−	1.47
Div.				. .	+	0.15
Flex., etc. . . .				. .	+	1.91

η BOOTIS.

Jan.	30	A.	−	.01	+	1.2
Feb.	11	A.		. .	−	0.7
April	21	N.	−	.01	−	0.1
	24	A.		.00	−	1.2
May	26	A.	−	.08		. .
June	15	N.	−	.08	−	0.1
	18	T.	−	.10	+	0.3
	25	T.	−	.16		. .
Sept.	5	T.	−	.12	−	1.2
	12	T.		.00	−	0.9
	18	T.	−	.03	−	2.0
	21	T.	−	.10	−	1.6
Nov.	2	E.	−	.09	−	2.7
	4	N.	+	.01	−	2.1
	11	N.	−	.03	−	1.5
	22	N.	−	.01	−	0.2
Mean			−	.054	−	1.10
Div.				. .	+	0.06
Flex., etc. . . .				. .	+	1.04

η BOOTIS, (Ref.)

June	12	E.	−	.06	−	1.4
	22	N.	−	.01	−	0.2
	29	N.		. .	−	0.5
July	2	N.	−	.14	−	0.1
Mean			−	.070	−	0.55
Div.				. .	+	0.18
Flex., etc. . . .				. .	+	1.25

α DRACONIS.

May	22	A.	+	.14	−	3.0
	26	A.	−	.12	−	1.8
June	22	N.	+	.05	−	1.4
Mean			+	.023	−	2.07
Div.				. .	−	0.14
Flex., etc. . . .				. .	+	0.28

α DRACONIS, (Ref.)

May	11	N.	−	.04	−	3.2
	21	N.	+	.16	−	2.8
June	8	N.		. .	−	2.5
	12	E.	−	.17	−	3.2
	15	N.	+	.03	−	4.4
	18	N.	+	.01	−	3.4
Mean			−	.002	−	3.25
Div.				. .	−	0.05
Flex., etc. . . .				. .	+	1.84

α BOOTIS.

April	21	N.	−	.03	+	1.0
	24	A.	−	.05	−	0.2
May	21	N.	+	.03	+	0.9
	22	A.	+	.13	+	0.3
	26	A.	+	.01	+	0.4
June	8	N.		. .	+	0.5
	15	N.	+	.03	+	1.7
	18	N.	−	.01	+	1.5
	28	T.		. .	+	2.0
July	25	T.	+	.03	+	1.0

α BOOTIS—Continued.

				s.		″
Sept.	7*	F.	+	.03	+	3.2
	12	T.	+	.03	+	1.9
	19	F.	+	.01	+	1.1
	21	T.	+	.01	−	1.1
	30	F.	−	.02	+	2.6
Oct.	1	T.	−	.04	+	2.3
	9	F.		. .	+	1.9
	12	N.	−	.05	+	2.1
Nov.	2	E.	−	.04	+	3.2
	3	T.	−	.11	−	0.8
	6	T.	−	.08	−	0.2
	9	E.		. .	+	1.5
	10	T.	−	.01	+	0.9
	13	T.	+	.05		0.0
	17	T.	+	.04	+	0.5
	27	T.	+	.01	+	1.4
Dec.	1	F.	−	.04	+	3.7
Mean			−	.003	+	1.23
Div.				. .	+	0.05
Flex., etc. . . .				. .	+	1.04

α BOOTIS, (Ref.)

April	8	N.	+	.30	−	1.7
June	5	E.	−	.09		. .
	12	E.	+	.03	+	0.6
	22	N.	+	.08	+	0.8
	23	E.	−	.20	−	3.4*r*
July	2	N.	−	.03	+	0.9
Nov.	11	N.	+	.01	+	1.6
Mean			−	.014	+	0.44
Div.				. .	+	0.22
Flex., etc. . . .				. .	+	1.25

θ BOOTIS.

May	16	E.	+	.16	+	1.1
	22	A.	+	.10		. .
Mean			+	.080	+	1.10
Div.				. .	−	0.10
Flex., etc. . . .				. .	−	0.34

θ BOOTIS, (Ref.)

June	18	N.		. .	−	2.2
	22	N.	+	.17	−	2.2
	25	N.	+	.05	−	1.5
Mean			+	.110	−	1.97
Div.				. .	+	0.12
Flex., etc. . . .				. .	+	1.90

5 URSÆ MINORIS.

May	16	E.	−	.10	−	0.5
	22	A.	+	.09	−	2.9
	26	A.	−	.37	−	3.7
	30	E.	−	.19	−	3.6
June	5	E.	+	.10	−	3.2
	12	E.	−	.34	−	2.7
	29	N.	+	.27	−	2.8
Mean			−	.077	−	2.77
Div.				. .	+	0.15
Flex., etc. . . .				. .	+	0.22

5 URSÆ MINORIS, (Ref.)

June	15	N.	+	.36	−	3.6
	18	N.	+	.24	−	2.8
	22	N.		. .	−	0.9
	25	N.		. .	−	2.9
Mean			+	.300	−	2.55
Div.				. .	−	0.17
Flex., etc. . . .				. .	+	1.78

5 URSÆ MINORIS, S. P.

				s.		″
Nov.	13	E.	+	1.17*r*	+	2.4
	14	T.	+	.04	+	1.4
	18	T.	+	.11	+	1.0
	23	F.	−	.48	+	2.3
	26	F.	+	.99*r*	+	1.3
	30	F.	+	.12	+	1.8
Dec.	1	T.	+	.68	+	1.5
	2	F.	−	.14	+	1.5
Mean			−	.055	+	1.55
Div.				. .	+	[illegible]
Flex., etc. . . .				. .		0.00

ε BOOTIS.

Feb.	11	A.	−	.06	+	[illegible]
April	8	N.	+	.07	−	1.1
	16	E.	+	.03	+	0.6
May	21	N.	+	.05	−	0.8
	26	A.	−	.01	−	0.6
	30	E.	+	.06	−	0.6
June	12	E.		. .	−	1.4
	16	E.		. .	−	1.0
Sept.	7	F.	+	.01	+	0.2
	18	T.	−	.05	−	3.1
	21	T.	−	.01	−	2.5
	28	F.		.00	+	2.7
	29	T.	+	.03	−	2.3
	30	F.		. .	+	0.3
Oct.	13	F.		. .	+	0.3
Mean			+	.007	−	0.45
Div.				. .	−	0.15
Flex., etc. . . .				. .	+	1.34

ε BOOTIS, (Ref.)

June	25	N.	−	.03	−	[illegible]
	29	N.		. .	−	[illegible]
Mean			−	.030	−	1.00
Div.				. .	−	0.41
Flex., etc. . . .				. .	+	1.27

α² LIBRÆ.

April	27	N.	+	.03	−	[illegible]
	30	A.	+	.01	+	1.6
May	11	N.	+	.01	+	0.7
	26	A.	+	.07	−	0.7
June	5	E.	−	.02	+	[illegible]
	12	E.	−	.04	−	0.5
	18	N.	−	.04	+	0.7
July	2	N.	−	.03	+	[illegible]
	3	E.		.00	+	1.8
Sept.	11	F.	−	.04		. .
Dec.	8	T.	−	.01	−	0.7
Mean			−	.005	+	0.35
Div.				. .	+	[illegible]
Flex., etc. . . .				. .	+	[illegible]

β URSÆ MINORIS.

April	27	N.	+	.33	−	[illegible]
	30	A.		. .	−	2.6
May	16	E.	+	.19	−	0.4
June	25	N.	+	.12	−	[illegible]
	29	N.	+	.09	−	[illegible]
July	2	N.	+	.25	−	1.1
	3	E.	+	.26	−	[illegible]
Nov.	13	T.		. .	+	[illegible]
Mean			+	.207	−	[illegible]
Div.				. .	+	[illegible]
Flex., etc. . . .				. .	+	0.23

β URSÆ MINORIS, (Ref.)

May	11	N.	+	.09	−	1.5
	21	N.	−	.24	−	2.1

β Ursæ Minoris, (Ref.)—Continued.

				s.		"
June	15	N.	+	.14	−	3.3
	16	E.		. .	−	3.1
	18	N.	+	.04	−	3.0
Mean			+	.008	−	2.62
Div.				. .	−	0.16
Flex., etc.				. .	+	1.79

β Ursæ Minoris, S. P.

July	13	E.	+	.11		. .
Nov.	23	F.	−	.13	+	0.4
	26	F.	+	.70	+	2.7
	30	F.	+	.15	−	0.4
Dec.	2	F.	+	.17	+	1.6
Mean			+	.200	+	1.08
Div.				. .	+	0.08
Flex., etc.				. .	−	0.02

β Bootis.

April	27	N.	−	.01	−	3.1
May	21	N.	+	.08	−	1.8
	26	A.	−	.07	−	2.4
June	9	E.	+	.20	−	0.6
	12	E.	+	.06	−	0.5
	29	N.	+	.01	−	1.3
July	2	N.	+	.05	−	1.7
Mean			+	.046	−	1.63
Div.				. .	+	0.11
Flex., etc.				. .	+	0.59

β Libræ.

Jan.	30	A.	+	.08		. .
Feb.	13	E.	−	.08	+	8.0r
April	27	N.	−	.02	−	2.1
May	21	N.		.00	−	2.2
	26	A.	−	.05	−	0.6
	30	E.	+	.05	+	0.9
June	9	E.		. .	−	1.0
	24	T.	−	.05	−	1.6
	25	N.	−	.02	−	0.9
	29	N.	+	.05	−	1.2
July	3	E.	−	.05	+	0.1
Aug.	12	T.	−	.03		0.0
	26	T.	+	.06		. .
Dec.	11	T.	+	.03		. .
Mean			−	.002	−	0.86
Div.				. .	+	0.42
Flex., etc.				. .	+	0.93

β Libræ, (Ref.)

May	11	N.	−	.04	+	1.0
une	15	N.	+	.03	−	0.2
	18	N.	−	.06	−	0.1
uly	2	N.	+	.01	+	0.4
Mean			−	.015	+	0.28
Div.				. .	−	0.30
lex., etc.				. .	+	1.13

μ^1 Bootis.

April	27	N.	−	.08	−	1.3
	30	A.	+	.03		. .
May	11	N.	+	.07	−	1.7
une	9	E.		. .		0.0
	18	N.	+	.02	−	0.5
	22	N.	−	.10	+	0.2
	25	N.	−	.02	+	0.5
uly	2	N.	−	.10	−	0.8
Mean			−	.026	−	0.51
Div.				. .	−	0.07
lex., etc.				. .	+	0.79

γ^2 Ursæ Minoris.

				s.		"
June	13	T.	+	.14	+	0.3
	15	N.	+	.37	−	0.4
	22	N.	+	.26	−	1.0
	25	N.	+	.07		0.0
	29	N.	−	.11	−	0.6
Mean			+	.146	−	0.34
Div.				. .	+	0.12
Flex., etc.				. .	+	0.25

γ^2 Ursæ Minoris, S. P.

Nov.	23	F.	−	.30	−	1.0
Dec.	17	N.	+	.34	−	2.0
Mean			−	.020	−	1.50
Div.				. .	+	0.07
Flex., etc.				. .	−	0.05

α Coronæ Borealis.

Feb.	11	A.	−	.07	+	0.9
	14	A.	+	.02		. .
May	30	E.	−	.05	+	4.0
June	9	E.		. .	+	2.6
	25	N.	+	.02	+	1.3
	29	N.	−	.05	+	1.0
July	1	T.	+	.04	+	0.1
Aug.	12	T.	−	.04		. .
Oct.	17	T.	−	.07	−	1.0
Nov.	3	E.	−	.05		0.0
	27	T.	−	.09		0.0
Dec.	8	T.	+	.06	−	0.3
	11	T.	−	.06	+	1.8
	21	F.	−	.03	+	2.3
Mean			−	.029	+	0.99
Div.				. .	−	0.16
Flex., etc.				. .	+	1.06

α Coronæ Borealis, (Ref.)

June	1	N.	+	.04	+	1.8
	5	E.	+	.15	+	1.0
	13	T.		. .	+	1.1
	15	N.	+	.01	+	0.9
	18	N.	−	.02	+	1.1
July	3	E.	+	.08	+	1.1
Mean			+	.052	+	1.17
Div.				. .	−	0.01
Flex., etc.				. .	+	1.27

α Serpentis.

Feb.	14	A.		.00	−	0.3
May	26	A.	+	.02	+	0.3
	30	E.	+	.08	+	1.4
June	1	N.	+	.08	−	0.3
	5	E.	+	.15	+	1.0
	13	T.	−	.05		. .
	15	N.	+	.06	+	1.2
	26	E.		. .	+	3.1
July	1	N.	+	.02	+	0.1
	23	N.	−	.03	+	0.7
Aug.	26	T.	−	.02		. .
Oct.	17	T.		.00	+	1.8
	24	T.	−	.02	+	3.3
	29	E.	+	.13	+	2.8
Nov.	3	E.	−	.06	+	0.4
Dec.	11	T.	−	.01		. .
	17	F.	+	.03	+	1.6
	18	T.	+	.03	−	0.8
	21	F.		.00	+	1.0
	22	T.	+	.21	+	0.9
Mean			+	.033	+	1.06
Div.				. .	+	0.11
Flex., etc.				. .	+	0.99

α Serpentis, (Ref.)

				s.		"
June	17	T.	+	.17	+	1.2
	24	T.	−	.07	−	0.4
	25	N.	+	.09	−	0.8
	29	N.	+	.08	+	0.5
July	1	T.	−	.01	+	0.1
	3	E.	−	.06	+	1.6
Mean			+	.033	+	0.37
Div.				. .	−	0.09
Flex., etc.				. .	+	1.21

ι Serpentis.

Feb.	11	A.	−	.08	−	1.5
June	17	T.		. .	−	1.3
	22	N.	+	.04	−	0.5
	24	T.	+	.08	−	1.3
July	1	T.	−	.06	−	0.7
	3	E.	−	.05	+	0.3
	15	N.	−	.11	+	1.3
	17	E.	+	.26	+	3.5
	23	N.	−	.06	−	0.8
Aug.	26	T.	−	.13	+	1.1
Oct.	13	F.	+	.07		. .
Mean			−	0.04	−	0.14
Div.				. .	+	0.14
Flex., etc.				. .	+	0.98

ζ Ursæ Minoris.

May	21	N.	−	.05	−	1.2
June	15	N.	+	.22	+	1.1.
	18	N.	−	.16	+	0.3
	22	N.	+	.04	+	0.2
	25	N.		.00	+	0.8
Mean			+	.010	+	0.24
Div.				. .	+	0.23
Flex., etc.				. .	+	0.20

ζ Ursæ Minoris, (Ref.)

June	29	N.		. .	−	1.50
Div.				. .	−	0.18
Flex., etc.				. .	+	1.76

δ Scorpii.

Feb.	11	A.	−	.04	−	1.4
	14	A.	+	.10	−	0.8
June	15	N.	+	.03	+	0.1
Dec.	8	T.	−	.03		. .
Mean			+	.015	−	0.70
Div.				. .	−	0.05
Flex., etc.				. .	+	0.82

β^1 Scorpii.

Feb.	11	A.	+	.06		. .
	14	A.	+	.03	−	0.5
May	21	N.	+	.09	−	0.6
June	26	E.	−	.01	+	1.2
July	1	T.	+	.07		. .
	2	N.	+	.08	−	0.4
	14	E.	−	.02	+	0.7
	16	N.	+	.10	+	0.2
Mean			+	.050	+	0.10
Div.				. .	+	0.07
Flex., etc.				. .	+	0.83

δ Ophiuchi.

Feb.	14	A.	−	.01	−	1.4
May	30	E.	+	.01	−	0.2
June	12	E.	−	.24	+	0.6
	18	N.	−	.03	+	0.1
	26	E.	−	.14	+	1.6
July	14	E.	−	.06	−	2.0
	17	E.	−	.01	+	0.1
	28	E.		. .		0.0

δ Ophiuchi—Continued.

				s.		″
Oct.	30	F.	+	.02		. .
Dec.	17	F.	+	.04	−	0.2
Mean			−	.047	−	0.18
Div.				. .	+	0.30
Flex., etc.				. .	+	0.95

δ Ophiuchi, (Ref.)

June	17	T.		. .	+	1.9
	24	T.	+	.13		. .
Div.				. .	−	0.42
Flex., etc.				. .	+	1.17

τ Herculis.

June	5	E.	+	.07	−	1.3
	15	N.	+	.19	−	0.6
	18	N.	+	.20	−	0.5
	26	E.	+	.05	+	1.0
July	3	E.	+	.06	+	1.2
	14	E.	+	.04	−	0.6
	17	E.	+	.26	+	5.4
Mean			+	.124	+	0.17
Div.				. .	+	0.04
Flex., etc.				. .	+	0.36

τ Herculis, (Ref.)

June	27	N.	+	.06	−	2.3
July	1	T.	+	.23	−	0.9
Mean			+	.145	−	1.60
Div.				. .	+	0.07
Flex., etc.				. .	+	1.92

α Scorpii.

April	30	A.	−	.10	+	1.8
May	30	A.		.00	−	2.5
June	5	E.	−	.11	+	1.8
	13	T.	+	.06	+	0.9
	15	N.	+	.02	+	1.9
	18	N.	+	.01	+	1.7
	26	E.	−	.16	+	2.8
	29	N.	+	.04		. .
July	3	E.	−	.05	+	1.8
	14	E.	−	.15	+	2.9
	17	E.	−	.09	+	1.6
Aug.	13	F.	−	.18	+	1.8
Sept.	21	T.	+	.07	−	3.9
Oct.	13	F.	+	.01	−	0.4
	30	F.	−	.11	+	0.8
Nov.	3	E.	+	.01	−	0.2
Dec.	17	F.	+	.12	+	1.7
	25	T.	−	.06		. .
Mean			−	.037	+	1.18
Div.				. .	−	0.16
Flex., etc.				. .	+	0.78

η Draconis.

June	17	T.	−	.36	+	1.3
	24	T.	−	.61	+	0.6
July	1	T.	−	.65	+	1.3
	16	N.	−	.66	+	0.3
	23	N.	−	.80	−	0.2
Mean			−	.616	+	0.66
Div.				. .	−	0.23
Flex., etc.				. .	+	0.30

A Draconis.

June	13	T.	−	.14	+	1.2
	15	N.	−	.03	−	0.2
	26	E.	−	.45	+	0.7

A Draconis—Continued.

				s.		″
July	3	E.	−	.08	+	0.5
	14	E.	−	.33	+	0.4
	16	N.	−	.08	−	1.0
Mean			−	.185	+	0.27
Div.				. .	+	0.03
Flex., etc.				. .	+	0.26

A Draconis, S. P.

Dec.	5	T.	−	.22	−	0.6
	17	N.	+	.10	−	1.3
	23	T.	+	.36	−	0.5
Mean			+	.080	−	0.80
Div.				. .	+	0.03
Flex., etc.				. .	−	0.08

ζ Ophiuchi.

June	27	T.	−	.05	−	0.4
	29	N.	−	.02	+	0.1
July	13	N.	−	.02	−	1.1
	17	E.	−	.14		0.0
	18	E.		. .	+	1.7
Nov.	4	T.	−	.08	−	1.0
Mean			−	.062	−	0.12
Div.				. .	+	0.34
Flex., etc.				. .	+	0.93

ζ Ophiuchi, (Ref.)

June	18	N.	−	.02	+	0.1
	24	T.		. .	+	0.4
Mean			−	.020	+	0.25
Div.				. .	−	0.22
Flex., etc.				. .	+	1.14

η Herculis.

June	26	E.	−	.06	+	2.3
July	3	E.	+	.10	+	2.9
	16	N.	+	.05	+	0.8
	17	E.	+	.20	+	1.8
Aug.	6	F.	−	.04	+	2.6
Oct.	30	F.	−	.02	+	0.2
Mean			+	.036	+	1.77
Div.				. .		0.00
Flex., etc.				. .	+	0.70

κ Ophiuchi.

May	8	A.	−	.05	−	0.2
June	22	N.	+	.06	+	0.1
	26	E.	−	.05	+	3.0
	27	T.	−	.04	+	0.5
July	3	E.	+	.09	+	1.2
	10	E.		. .		0.0
	14	E.	+	.05	+	1.7
	15	N.		. .	−	0.9
	17	E.	−	.02	+	0.8
	25	E.		. .	+	0.9
Aug.	6	F.	−	.03	−	2.8
Sept.	21	T.	+	.12		. .
Oct.	24	T.	−	.04	−	1.0
	30	F.	−	.01		. .
Mean			+	.077	+	0.31
Div.				. .	+	0.06
Flex., etc.				. .	+	1.01

d Herculis.

June	26	E.	−	.03	+	0.8
	29	N.	+	.10	+	0.5
July	1	T.	+	.24	+	0.2
	3	E.	+	.19	+	1.1
	14	E.	+	.10	+	1.0

d Herculis—Continued.

				s.		
July	16	N.		. .	−	0.3
	17	E.	+	.21	+	1.5
	28	E.	+	.35	+	1.8
Mean			+	.166	+	0.82
Div.				. .	−	0.06
Flex., etc.				. .	+	1.05

ε Ursæ Minoris.

June	15	N.	+	.18		0.0
	24	T.	−	.49		. .
July	3	E.	+	.17	−	0.3
	10	E.		. .	−	1.7
	14	E.		. .	−	0.1
	17	E.		. .	−	1.1
	18	T.	−	.17	+	0.8
	28	E.		. .	−	2.2
	29	T.		. .	+	0.9
Aug.	6	F.	−	1.95	−	2.4
Oct.	30	F.	+	0.36	+	1.3
Mean			−	.317	−	0.45
Div.				. .	+	0.41
Flex., etc.				. .	+	0.15

ε Ursæ Minoris, (Ref.)

July	2	N.	+	.10	−	0.7
Div.				. .	−	0.30
Flex., etc.				. .	+	1.73

ε Ursæ Minoris, S. P.

Dec.	5	T.	+	.37	−	0.8
	8	F.	+	2.36r	+	3.4
	10	N.	−	.09	−	0.7
	26	T.	−	.19		. .
Mean			−	.003	+	0.37
Div.				. .	+	0.10
Flex., etc.				. .	+	0.04

α^1 Herculis.

June	13	T.	+	.05	+	0.5
	15	N.	−	.02	+	0.6
July	2	N.		.00	+	0.3
	3	E.	+	.05	+	0.7
	11	T.	+	.02	+	0.3
	15	T.	+	.01	+	0.9
	17	E.	+	.06	+	0.9
	28	E.		. .	+	0.4
Nov.	3	E.	+	.08	−	0.4
	4	T.	−	.06	−	2.1
Dec.	22	T.	+	.06	−	1.3
Mean			+	.025	+	0.15
Div.				. .	+	0.38
Flex., etc.				. .	+	1.33

α Herculis, (Ref.)

July	16	N.	+	.07	−	0.3
	18	T.	−	.06	−	1.6
Mean			+	.005	−	0.95
Div.				. .	+	0.15
Flex., etc.				. .	+	1.2[illegible]

b Ophiuchi.

June	18	N.		.00	−	0.1
	29	N.	−	.04	−	0.4
July	1	T.	+	.10	+	0.4
	2	N.		.00	−	0.5
	15	T.	−	.04	+	0.6
	16	N.	+	.09	−	0.1
	18	T.	+	.01	+	0.6
	29	T.		. .	−	0.1

b OPHIUCHI—Continued.

				s.		″
Aug.	6	F.	−	.01		. .
	13	F.	−	.03		0.0
Mean			−	.009	+	0.04
Div.				. .	−	0.12
Flex., etc.				. .	+	0.80

β DRACONIS.

July	15	T.	+	.13	+	0.2
	23	N.	+	.08	−	1.1
Aug.	13	F.	+	.05	+	2.1
Mean			+	.087	+	0.40
Div.				. .	−	0.09
Flex., etc.				. .	+	0.34

a OPHIUCHI.

June	18	N.	+	.06	+	1.1
July	13	N.	+	.01	−	0.3
	22	T.	−	.01	+	0.1
	29	T.		. .	+	0.1
Sept.	11	Ha.		. .	+	0.7
Nov.	3	E.	+	.09	+	0.6
	4	T.	−	.06	−	0.4
	7	T.	−	.02	−	0.6
	11	T.	+	.12	+	0.8
	14	T.	+	.02	−	1.7
	18	T.	+	.06	−	0.2
	25	T.	+	.03	−	0.3
Mean			+	.030	−	0.01
Div.				. .	+	0.05
Flex., etc.				. .	+	1.02

a OPHIUCHI, (Ref.)

July	11	T.	+	.01	+	1.1
	16	N.		.00	+	0.5
	18	T.	−	.04	−	0.2
Mean			−	.010	+	0.47
Div.				. .	+	0.14
Flex., etc.				. .	+	1.23

ω DRACONIS.

June	29	N.	−	.02	−	2.5
July	11	T.	+	.02	−	1.2
	15	T.	−	.21	−	1.9
	16	N.	+	.08	−	3.3
	22	T.	−	.03	−	2.7
Aug.	6	F.	−	.40	−	3.5
	13	F.	−	.06	−	2.0
Mean			−	.088	−	2.44
Div.				. .	+	0.01
Flex., etc.				. .	+	0.26

ω DRACONIS, (Ref.)

July	18	T.	+	.18	−	5.1
	23	N.	+	.12	−	3.4
Mean			+	.150	−	4.25
Div.				. .	−	0.07
Flex., etc.				. .	+	1.82

μ HERCULIS.

May	8	A.	−	.07	−	1.1
une	26	E.	+	.09	+	2.0
	27	T.	+	.03	−	0.6
uly	16	N.		.00	−	0.8
	29	T.		. .	−	0.7
Nov.	3	E.	+	.03	−	1.6
	4	T.	−	.04	−	2.4
Mean			+	.007	−	0.74
Div.				. .	−	0.15
Flex., etc.				. .	+	1.06

ψ^1 DRACONIS.

				s.		″
June	29	N.	+	.07	−	0.8
July	1	T.	+	.12	−	0.7
	18	T.	+	.39	+	0.9
	28	E.	+	.06	+	2.5
	31	E.	+	.06	+	0.6
Mean			+	.140	+	0.50
Div.				. .	+	0.12
Flex., etc.				. .	+	0.25

ψ^1 DRACONIS, (Ref.)

July	2	N.		. .	−	1.0
	15	T.	+	.24	−	1.8
	22	T.	+	.51	−	2.3
	23	N.	+	.09	−	1.2
Aug.	14	E.	+	.01	−	1.7
Mean			+	.212	−	1.60
Div.				. .	−	0.13
Flex., etc.				. .	+	1.81

γ DRACONIS.

June	29	N.	−	.14	+	0.5
July	1	T.	+	.02	+	0.2
	3	E.	−	.11	+	0.3
	10	E.	+	.08	−	0.3
	14	E.	−	.32	−	3.0
	16	N.	−	.06	−	0.9
	22	T.	−	.03	−	1.1
	28	E.	−	.18	−	0.1
	31	E.	+	.05	−	1.5
Aug.	18	E.	−	.18	−	2.2
Nov.	3	E.	−	.12	+	1.3
Mean			−	.090	−	0.62
Div.				. .	−	0.02
Flex., etc.				. .	+	0.34

γ DRACONIS, (Ref.)

July	11	T.	+	.03	−	1.8
	15	T.	+	.05	−	1.7
	18	T.	+	.04	−	2.7
Aug.	6	F.	−	.44	−	0.8
	14	E.	−	.08	−	0.8
Mean			−	.080	−	1.56
Div.				. .	+	0.16
Flex., etc.				. .	+	1.91

γ^2 SAGITTARII.

May	8	A.	+	.04	−	1.4
June	13	T.	+	.01	−	0.5
July	10	E.		. .	−	2.5
	14	E.	+	.07	−	0.8
Aug.	14	E.	−	.10	+	1.0
Mean			+	.005	−	0.84
Div.				. .	−	0.18
Flex., etc.				. .	+	0.74

μ^1 SAGITTARII.

May	8	A.	+	.01	−	2.2
June	13	T.	+	.06		. .
July	1	T.	+	.06	−	0.9
	3	E.	+	.04	+	0.9
	14	E.	−	.11	+	0.6
	15	T.	−	.03	+	2.1
	16	N.		.00	−	1.9
	22	T.	+	.06	−	1.5
	29	T.		. .	+	0.3
	31	E.	−	.11	−	1.7
Aug.	5	T.	−	.14	−	1.6
	6	F.	+	.04	+	1.0
	10	F.	−	.12	+	2.5
	14	E.	−	.14		0.0

μ^1 SAGITTARII—Continued.

				s.		″
Aug.	18	E.	−	.22	−	0.2
Sept.	11	Ha.		. .	−	0.7
Mean			−	.038	−	0.55
Div.				. .	+	0.02
Flex., etc.				. .	+	0.82

δ URSÆ MINORIS.

May	8	A.		. .	−	2.6
June	13	T.	+	0.14		. .
	18	N.		. .	−	2.0
	27	T.		. .	−	1.7
	29	N.		. .	−	1.5
July	1	T.	+	0.56	−	1.4
	2	N.		. .	−	2.3
	3	E.		. .	−	1.1
	10	E.		. .	−	2.1
	14	E.		. .	−	1.4
	16	N.		. .	−	1.3
	17	E.		. .	−	2.4
	22	T.		.	−	1.0
	29	T.		. .	−	2.1
	31	E.		. .	−	0.7
Aug.	5	T.		. .	−	0.1
	7	E.		. .	−	1.3
	14	E.		. .	−	0.9
	18	E.		. .	−	0.4
	27	F.		. .	+	1.1
	31	F.		. .	−	3.1
Sept.	8	Ha.	−	0.84	+	0.4
	10	Ha.	−	0.59	−	2.2
	16	Ha.		. .	−	2.8
	30	F.	−	0.34	−	0.7
Oct.	2	N.		. .	−	2.3
	6	F.		. .	−	1.8
	12	N.	−	0.40	−	0.7
	13	F.		. .	+	1.6
	17	T.	+	0.27		. .
Nov.	7	T.	+	0.84	−	1.5
	12	N.	−	1.21		. .
	18	T.	+	0.46	−	2.6
	28	T.		. .		0.0
Dec.	21	N.	−	1.13		. .
Mean			−	0.204	−	1.32
Div.				. .	+	0.30
Flex., etc.				. .	+	0.15

δ URSÆ MINORIS, S. P.

Feb.	11	A.	+	0.63	+	0.4
	14	A.	−	1.21	+	0.6
	18	A.	−	0.83	+	0.5
	19	Ha.	−	0.10	+	1.4
	22	N.	−	0.50	+	1.8
Nov.	30	F.		. .	+	1.5
Dec.	1	T.		. .	+	0.8
	5	T.		. .	+	0.5
	8	F.		. .	+	0.2
	17	N.		. .	+	0.1
	18	F.		. .	+	2.2
	21	N.	−	0.78	−	0.1
	23	T.		. .	+	1.1
Mean			−	0.465	+	0.85
Div.				. .	+	0.16
Flex., etc.				. .	+	0.08

η SERPENTIS.

June	15	N.		.00	−	0.2
July	11	T.	+	.04	+	0.3
	18	T.	+	.09	−	2.9
	23	N.	+	.12	−	2.7
Sept.	11	Ha.		. .	−	1.0
Mean			+	.625	−	1.30
Div.				. .	+	0.30
Flex., etc.				. .	+	0.95

ι AQUILÆ.

			s.	″
May	8	A.	+ .10	− 2.3
June	15	N.	+ .01	− 1.0
	29	N.	+ .08	− 2.5
July	3	E.	+ .05	− 0.2
	7	E.	+ .04	− 2.5
	11	T.	+ .13	− 1.4
	18	T.	+ .09	− 1.1
	25	T.	+ .12	− 0.4
Aug.	5	T.	− .02	− 2.4
	7	E.	. .	− 1.6
	18	E.	− .12	− 1.5
Sept.	11	Ha.	. .	− 2.0
Mean			+ .050	− 1.58
Div.			. .	+ 0.43
Flex., etc.			. .	+ 0.93

ι AQUILÆ, (Ref.)

			s.	″
July	1	T.	+ .11	− 0.1
Sept.	8	Ha.	. .	− 1.1
Oct.	2	N.	+ .11	− 2.7
Mean			+ .110	− 1.10
Div.			. .	− 0.30
Flex., etc.			. .	+ 1.15

α LYRÆ.

			s.	″
June	15	N.	− .02	+ 0.7
	29	N.	+ .04	0.0
July	4	T.	. .	+ 1.6
	7	E.	+ .01	+ 1.6
	29	T.	. .	− 0.6
Aug.	5	T.	+ .07	+ 1.8
	6	F.	. .	+ 2.5
	7	E.	. .	+ 0.5
	13	F.	− .03	+ 2.5
	18	E.	− .03	+ 2.7
	27	F.	. .	+ 2.0
Sept.	7	F.	− .09	+ 1.7
	16	Ha.	. .	− 0.6
Oct.	12	N.	− .04	+ 1.1
	13	F.	− .06	+ 1.3
Nov.	18	T.	− .03	− 0.5
	23	N.	− .03	+ 0.1
	28	T.	+ .07	0.0
Dec.	8	F.	− .07	+ 1.9
Mean			− .016	− 1.07
Div.			. .	0.00
Flex., etc.			. .	+ 0.73

β LYRÆ.

			s.	″
Feb.	6	A.	− .21	. .
	13	A.	− .14	. .
July	4	T.	+ .04	+ 0.4
	7	E.	+ .03	0.0
	23	N.	+ .04	− 1.7
	31	E.	. .	+ 4.0
Aug.	14	F.	+ .06	− 0.6
	18	E.	− .05	− 0.7
Sept.	10	Ha.	.00	− 0.8
	11	Ha.	. .	0.0
	16	Ha.	. .	− 1.5
Mean			− .026	− 0.10
Div.			. .	− 0.06
Flex., etc.			. .	+ 1.05

σ SAGITTARII.

			s.	″
July	7	E.	+ .02	− 0.8
	18	T.	+ .03	. .
	25	T.	.00	+ 0.7
Aug.	12	T.	− .03	+ 0.5
	18	E.	+ .05	+ 0.8
Sept.	19	Ha.	− .10	− 0.4
	30	F.	+ .01	+ 2.8

σ SAGITTARII—Continued.

			s.	″
Oct.	2	N.	. .	+ 0.2
	6	F.	− .13	+ 1.1
Mean			− .019	+ 0.61
Div.			. .	− 0.17
Flex., etc.			. .	+ 0.78

50 DRACONIS.

			s.	″
July	1	T.	+ .44	− 2.0
Aug.	7	E.	− .03	. .
	13	F.	+ .90	− 6.5
Sept.	10	Ha.	− .17	− 2.9
	16	Ha.	+ .22	− 3.1
Oct.	5	N.	. .	− 2.1
Mean			+ .272	− 3.32
Div.			. .	+ 0.17
Flex., etc.			. .	+ 0.23

50 DRACONIS, S. P.

			s.	″
Feb.	22	N.	. .	+ 1.3
Dec.	5	T.	+ .10	+ 1.4
	8	F.	− .60	+ 1.5
	21	N.	+ .37	+ 0.3
	23	T.	+ .70	+ 2.1
Mean			+ .142	+ 1.32
Div.			. .	+ 0.08
Flex., etc.			. .	− 0.01

ζ AQUILÆ.

			s.	″
June	27	T.	+ .12	+ 0.6
July	1	T.	+ .11	− 0.3
	4	T.	+ .05	+ 0.6
	22	T.	+ .16	− 1.1
Aug.	10	F.	− .05	− 1.2
Sept.	10	Ha.	+ .05	0.0
	16	Ha.	. .	− 1.3
	19	Ha.	− .01	− 0.5
Oct.	5	N.	. .	+ 0.5
Nov.	28	T.	− .01	− 0.6
Dec.	9	T.	− .03	− 0.7
	12	T.	+ .08	− 0.2
Mean			+ .047	− 0.35
Div.			. .	+ 0.07
Flex., etc.			. .	+ 1.03

ζ AQUILÆ.

			s.	″
July	25	T.	+ .07	− 0.7
Aug.	7	E.	+ .15	0.0
	12	T.	+ .05	+ 0.6
	14	E.	− .01	+ 0.1
	18	E.	− .08	+ 2.4
Mean			+ .036	− 0.48
Div.			. .	+ 0.16
Flex., etc.			. .	+ 1.24

d SAGITTARII.

			s.	″
July	25	T.	− .01	− 0.5
Aug.	7	E.	− .06	− 1.0
	13	F.	− .14	. .
	14	E.	− .19	− 1.3
	18	E.	− .29	− 0.9
Sept.	7	F.	− .05	+ 0.1
	11	Ha.	− .07	+ 0.6
	16	Ha.	. .	− 1.9
	19	Ha.	+ .01	− 1.2
	21	Ha.	− .13	− 2.0
Mean			− .103	− 0.90
Div.			. .	+ 0.08
Flex., etc.			. .	+ 0.84

δ DRACONIS.

			s.	″
Aug.	14	E.	+ .07	0.0
	22	T.	+ .42	− 0.7
Sept.	10	Ha.	+ .33	− 1.0
	11	Ha.	.00	− 0.1
Mean			+ .210	− 0.45
Div.			. .	− 0.10
Flex., etc.			. .	+ 0.27

δ DRACONIS, (Ref.)

			s.	″
Aug.	12	T.	+ .25	− 3.3
	27	F.	+ .17	− 3.1
Oct.	5	N.	. .	− 2.9
	12	N.	− .10	− 4.4
Mean			− .007	− 3.42
Div.			. .	− 0.03
Flex., etc.			. .	+ 1.83

τ DRACONIS.

			s.	″
Sept.	10	Ha.	− .10	− 1.3
	19	Ha.	+ .12	− 2.4
	21	Ha.	− .12	− 2.5
Mean			− .033	− 2.07
Div.			. .	+ 0.15
Flex., etc.			. .	+ 0.24

δ AQUILÆ.

			s.	″
July	1	T.	+ .05	+ 1.3
	4	T.	+ .06	− 0.5
	18	T.	+ .13	+ 0.2
	22	T.	+ .02	− 0.5
	31	E.	. .	+ 0.7
Aug.	22	T.	+ .02	+ 1.5
Sept.	16	Ha.	. .	+ 0.1
	28	Ha.	. .	− 1.3
Mean			+ .056	+ 0.13
Div.			. .	+ 0.16
Flex., etc.			. .	+ 0.97

δ AQUILÆ, (Ref.)

			s.	″
July	25	T.	+ .02	− 0.1
Aug.	5	T.	+ .08	+ 1.1
	7	E.	+ .11	− 2.1
	12	T.	. .	− 1.4
	14	E.	+ .10	+ 0.9
Mean			+ .078	− 0.32
Div.			. .	− 0.18
Flex., etc.			. .	+ 1.20

κ AQUILÆ.

			s.	″
July	22	T.	+ .11	− 0.5
	25	T.	+ .05	+ 0.2
Aug.	5	T.	− .09	+ 0.3
	7	E.	. .	− 0.4
	12	T.	− .07	+ 0.2
	13	F.	+ .10	− 1.0
	14	E.	− .10	0.0
	15	T.	+ .01	+ 0.9
	17	F.	. .	+ 0.5
	26	T.	+ .01	+ 1.0
Sept.	7	F.	.00	− 0.1
	11	Ha.	. .	+ 0.2
	16	Ha.	. .	+ 0.7
	17	Ha.	+ .06	− 1.8
	19	Ha.	− .03	− 0.5
	21	Ha.	− .02	− 1.2
	28	Ha.	. .	+ 1.2
Mean			+ .002	− 0.03
Div.			. .	+ 0.39
Flex., etc.			. .	+ 0.93

γ AQUILÆ.

				s.		″
July	23	N.	+	.07	−	0.1
	25	T.	−	.01	+	0.5
Aug.	7	E.		. .	+	0.3
	12	T.	+	.05	+	0.4
	17	F.	−	.09	+	0.1
	26	T.	+	.02	+	0.1
	29	T.	−	.06	−	0.5
Sept.	11	Ha.		. .	+	0.2
	16	Ha.		. .	−	1.7
	17	Ha.	−	.10	−	1.3
	21	Ha.	+	.05	−	2.1
	28	Ha.		. .		0.0
Dec.	8	F.	+	.16	−	0.1
	9	T.	−	.03	+	0.9
	12	T.	+	.02	+	0.9
	19	T.	+	.03	−	0.7
	23	T.	−	.02	+	0.5
Mean			+	.046	−	0.21
Div.				. .	+	0.04
Flex., etc.				. .	+	1.01

γ AQUILÆ, (Ref.)

				s.		″
Aug.	5	T.	+	.07	+	0.1
	14	E.	−	.06	−	0.4
	25	E.		. .	−	2.7
Sept.	7	F.	+	.12	−	1.2
Oct.	13	F.	−	.04	−	3.2
Mean			+	.022	−	1.48
Div.				. .	+	0.06
Flex., etc.				. .	+	1.22

α AQUILÆ.

				s.		″
Feb.	6	A.		. .	+	0.7
	10	A.	+	.16	+	0.5
	11	Ha.	+	.02	−	1.3
	14	E.	+	.01	−	1.8
	17	A.	+	.07	−	1.3
July	25	T.	+	.10	+	0.6
Aug.	7	E.		. .	−	0.8
	14	E.	−	.08		0.0
	29	T.	+	.05	−	0.6
	31	F.		. .	+	0.1
Sept.	10	A.	−	.06	−	0.8
	11	Ha.		. .	+	0.5
	16	Ha.		. .	−	0.4
	17	Ha.	−	.06	−	1.9
	21	Ha.	−	.04	−	3.1
Dec.	2	F.	+	.01	+	0.9
	8	F.	+	.12	+	5.2
	9	T.	+	.06	+	1.3
	19	T.		.00	−	1.6
	23	T.		. .	−	1.1
Mean			+	.020	−	0.37
Div.				. .	+	0.09
Flex., etc.				. .	+	1.00

α AQUILÆ, (Ref.)

				s.		″
uly	22	T.	+	.02	+	0.4
Sept.	19	Ha.	−	.15		. .
	30	F.	−	.13		. .
Oct.	2	N.	−	.03	+	0.4
	12	N.	−	.04	−	0.9
	17	T.	+	.01	+	0.6
Mean			−	.053	+	0.12
Div.				. .	−	0.04
Flex., etc.				. .	+	1.22

ε DRACONIS.

				s.		″
uly	18	T.	+	.33	−	0.5
ept.	7	F.	−	.05	+	1.1
	30	F.		. .	−	1.4
Oct.	2	N.	+	.28	−	2.2
	24	T.	−	.22	−	1.1
Mean			+	.195	−	0.82
Div.				. .	+	0.06
Flex., etc.				. .	+	0.26

ε DRACONIS, S. P.

				s.		″
Feb.	19	Ha.	−	.01	+	1.8
April	8	N.	+	.23		. .
Oct.	24	T.	+	.18	+	1.3
Nov.	12	N.	+	.46	−	0.4
Dec.	8	F.		. .	+	5.9
	18	F.	+	.45	+	3.9
Mean			+	.262	+	2.40
Div.				. .	+	0.05
Flex., etc.				. .	−	0.07

β AQUILÆ.

				s.		″
July	25	T.	+	.04	+	0.2
Aug.	7	E.		. .	−	1.1
	14	E.	+	.05	+	0.3
	15	T.	+	.03	+	1.5
	17	F.		. .	+	0.1
	19	T.	+	.02	−	0.6
	25	E.		. .	+	0.4
	29	T.	+	.05	+	0.7
Sept.	10	Ha.	+	.04	+	0.7
	16	Ha.		. .	−	0.1
Dec.	12	T.	+	.01	+	1.2
	23	T.	−	.01	+	0.6
Mean			+	.029	+	0.32
Div.				. .	+	0 13
Flex., etc.				. .	+	0.99

β AQUILÆ, (Ref.)

				s.		″
Aug.	26	T.	+	.01	−	0.8
Oct.	12	N.	−	.03	−	0.8
	13	F.		.00	−	3.0
	16	F.	−	.11	−	1.5
Mean			−	.032	−	1.52
Div.				. .	−	0.11
Flex., etc.				. .	+	1.21

τ AQUILÆ.

				s.		″
Aug.	5	T.	−	.03	+	0.4
	7	E.		. .	+	0.3
	26	T.	−	.10	−	1.5
Sept.	7	F.	−	.04	+	2.5
	10	Ha.	−	.13		. .
Oct.	2	N.		. .	−	0.5
	5	N.	−	.13	+	0.8
	12	N.	−	.11	+	1.4
	13	F.	−	.08	+	2.2
	17	T.	−	.02	+	0.2
Mean			−	.062	+	0.64
Div.				. .	+	0.11
Flex., etc.				. .	+	0.99

λ URSÆ MINORIS.

				s.		″
Aug.	19	T.		. .	−	1.6
	20	F.		. .	+	1.2
	29	T.	+	.04	−	0.9
	31	F.		. .	+	1.1
Sept.	17	Ha.		. .	+	1.2
	18	Ha.	+	.42		0.0
	19	Ha.	−	.67	−	0.4
	21	Ha.		. .	−	0.9
	28	Ha.		. .	−	0.6
Oct.	5	N.		. .	+	0.3
	9	N.		. .	−	1.5
	16	F.		. .	+	1.3
	22	N.		. .	+	0.3
	23	F.	−	4.10	+	2.4
	24	T.	−	0.50	+	0.1
	26	E.	+	2.40	+	0.1
Nov.	3	N.	−	2.90	−	2.3
	5	N.	+	0.20		0.0
	6	N.	−	0.70	−	0.7
Mean			−	0.646	−	0.12
Div.				. .	+	0.18
Flex., etc.				. .	+	0.13

λ URSÆ MINORIS, S. P.

				s.		″
Feb.	11	A.	−	1.0	−	1.9
	12	Ha.	+	5.4	−	0.5
	19	Ha.	−	2.7	−	0.9
	22	N.		. .	−	0.2
Mar.	16	Ha.		. .	−	2.9
	18	Ha.	−	2.2	−	1.9
	19	E.	−	1.5	+	2.4
	23	Ha.		. .	−	2.6
	31	A.	−	3.4	−	2.4
April	8	N.	−	0.7	−	0.7
Oct.	17	T.		. .	−	0.3
	23	F.	−	7.3	+	1.3
	24	T.	−	3.6		. .
	26	E.	+	2.4	−	0.2
	28	T.	−	8.6	+	0.7
	29	E.	−	0.6	−	1.9
Nov.	2	N.		. .	−	1.8
	5	N.	−	6.4		. .
	6	E.		. .	+	2.3
	9	N.		. .	−	1.3
	11	T.		. .	+	0.7
	12	N.	−	6.4	−	1.1
	14	T.		. .	−	1.6
	18	T.		. .	−	1.4
	23	F.		. .	−	0.1
Dec.	2	F.		. .	+	1.8
Mean			−	2.614	−	0.67
Div.				. .	+	0.18
Flex., etc.				. .	+	0.10

α^2 CAPRICORNI.

				s.		″
July	18	T.	+	.03	−	0.7
	22	T.	+	.18	+	0.8
	25	N.	+	.01	+	0.3
Aug.	5	T.	+	.08	−	0.3
	10	F.	−	.06	+	0.8
	17	F.	+	.07	−	0.3
	20	F.	−	.02	+	1.8
	29	T.	+	.06	−	0.6
Sept.	17	Ha.		.00	−	3.3
	19	Ha.	+	.05	−	0.3
	30	F.	−	.05	+	1.7
Oct.	2	N.		. .		0.0
	5	N.	+	.02		0.0
	9	N.	+	.07	−	0.3
	12	N.	+	.01	+	1.2
	22	N.		. .	−	0.5
	24	T.	+	.11	−	0.8
Nov.	6	N.	+	.01		. .
Mean			+	.036	+	0.05
Div.				. .	+	0.16
Flex., etc.				. .	+	0.91

κ CEPHEI.

				s.		″
Aug.	12	T.	+	.56	−	0.6
	26	T.	+	.45	−	2.3
	31	F.	+	.60	−	2.3
Sept.	5	N.	+	.38	−	2.4
Oct.	2	N.	−	.34	−	0.4
	12	N.	+	.06	+	0.7
	13	F.	−	.16	+	0.4
	26	F.	+	.40	−	0.3
Mean			+	.243	−	0.90
Div.				. .	+	0.18
Flex., etc.				. .	+	0.21

κ CEPHEI, (Ref.)

				s.		″
Aug.	19	T.	+	.12	−	1.5
Oct.	24	T.	+	.01	−	3.0
Nov.	3	N.	+	.27	−	1.1
	5	N.	−	.04	−	2.5
Mean			+	.090	−	2.02
Div.				. .	−	0.18
Flex., etc.				. .	+	1.77

κ CEPHEI, S. P.

				s.		″
Feb.	13	E.		. .	−	0.2
	19	Ha.	+	.02	+	0.6
Mar.	18	Ha.	+	.07	−	0.5
April	8	N.	+	.16		. .
Mean .	. . . .		+	.083	−	0.03
Div. .	. . . .			. .	+	0.05
Flex., etc.	. . .			. .		0.00

π CAPRICORNI.

				s.		″
Aug.	12	T.	+	.08	+	0.8
	15	T.	−	.03	+	1.9
	17	F.	+	.01	+	2.8
	20	F.	+	.03	+	4.4
	26	T.	+	.01	+	1.0
Sept.	5	T.	+	.01	−	0.5
	19	Ha.	−	.05	+	0.6
	21	Ha.		.00	−	0.7
	30	F.	+	.01	+	3.4
Oct.	2	N.		. .	+	0.9
	9	N.	+	.27*r*		. .
	22	N.		. .	+	0.5
	24	T.	+	.06	+	1.2
Nov.	6	N.		.00	+	0.4
Mean .	. . . .		+	.033	+	1.19
Div. .	. . . .			. .	+	0.09
Flex., etc.	. . .			. .	+	0.84

ε DELPHINI.

				s.		″
Aug.	17	F.	−	.01	+	0.7
	19	T.	−	.04	−	0.8
	31	F.	+	.05	+	1.3
Sept.	17	Ha.	−	.02	−	1.9
	21	Ha.	−	.04	−	0.6
	30	F.	+	.12	+	2.9
Oct.	9	N.	+	.03	−	1.3
	22	N.		. .	−	0.3
	26	E.		. .	+	0.6
Nov.	3	N.	−	.07	−	1.9
	6	N.		.00	−	1.2
	19	N.	−	.02	−	1.2
Mean .	. . . .			.000	−	0.41
Div. .	. . . .			. .	+	0.02
Flex., etc.	. . .			. .	+	1.01

ε DELPHINI, (Ref.)

				s.		″
Aug.	15	T.	+	.13	−	1.8
Sept.	5	T.	+	.19		0.0
Oct.	12	N.	+	.03	−	2.9
	13	F.		. .	−	2.8
	16	F.	−	.14	−	2.1
Mean .	. . . .		+	.052	−	1.92
Div. .	. . . .			. .	+	0.10
Flex., etc.	. . .			. .	+	1.23

α CYGNI.

				s.		″
Feb.	10	A.	−	.07	+	1.4
	11	Ha.	+	.16	+	2.9
	12	E.		.00	+	0.5
	17	A.	+	.07	−	1.3
	19	E.		.00*r*	−	0.5
Aug.	10	F.		.00	−	1.7
	13	F.	+	.10	+	1.4
	20	F.		. .	+	3 3
	31	F.	−	.02	+	1.3
Sept.	8	Ha.	−	.31		0.0
	17	Ha.	−	.12	+	0.7
Oct.	12	N.	+	.04	+	2.9
	16	F.	−	.11	+	2.9
Mean .	. . . .		−	.022	+	1.12
Div. .	. . . .			. .	+	0.03
Flex., etc.	. . .			. .	+	0.37

α CYGNI, (Ref.)

				s.		″
Sept.	5	T.	+	.19	−	0.7
Oct.	1	T.	+	.10	−	2.5
	2	N.	−	.02	−	1.8
	5	N.	+	.17	−	1.4
Nov.	3	N.	−	.03	−	0.2
Meen .	. . . .		+	.082	−	1.32
Div. .	. . . .			. .	+	0.06
Flex., etc.	. . .			. .	+	1.93

μ AQUARII.

				s.		″
Aug.	10	F.	−	.02	−	1.0
	17	F.	+	.01	−	2.9
	20	F.	+	.09	−	4.1
Sept.	5	T.	+	.02	−	1.3
	7	F.	+	.06	+	2.1
	8	Ha.	+	.12	+	0.7
	10	Ha.	+	.09	−	0.2
	17	Ha.	+	.11	−	1.6
	18	Ha.	+	.05	−	0.8
	19	Ha.	+	.04	−	0.9
	21	Ha.	+	.09	−	1.7
	28	Ha.	+	.12	−	1.0
Oct.	1	T.	+	.07	+	2.3
	16	F.		. .	+	2.1
	24	T.	+	.10	−	0.6
Nov.	3	N.	−	.02	−	1.0
Mean	. . . .		+	.078	−	0.65
Div. .	. . . .			. .	+	0.40
Flex., etc.	. . .			. .	+	0.93

ν CYGNI.

				s.		″
Aug.	19	T.	+	.06	+	1.4
Sept.	8	Ha.		.00	+	0.8
	16	Ha.	+	.01	+	0.3
	17	Ha.	+	.02	−	0.7
	19	Ha.	+	.01	+	1.0
	21	F.	−	.01	+	3.7
	24	T.	−	.09	+	1.7
Mean	. . . .			.000	+	1.10
Div. .	. . . .			. .	+	0.11
Flex., etc.	. . .			. .	+	0.60

61¹ CYGNI.

				s.		″
Aug.	6	F.	+	.17	−	0.3
	17	F.	+	.40	+	1.1
Sept.	8	Ha.	+	.22		0.0
	10	Ha.	+	.34	−	0.4
	17	Ha.	+	.29	+	0.4
	18	Ha.	+	.31	−	2.1
	19	Ha.	+	.30	−	1.3
	21	Ha.	+	.28	−	0.9
Mean	. . . .		+	.289	−	0.44
Div. .	. . . .			. .	−	0.06
Flex., etc.	. . .			. .	+	0.77

ς CYGNI.

				s.		″
Aug.	13	F.	+	.09	+	4.4
	20	F.	−	.04	−	0.3
Sept.	5	T.	+	.05	−	2.4
	7	F.	+	.03	+	3.1
	8	Ha.	−	.09	+	1.6
	10	Ha.	−	.07	+	0.1
	17	Ha.	−	.01	−	1.2
	19	Ha.	−	.07	−	1.6
Oct.	7	T.	−	.01	+	1.0
	29	E.	−	.01	+	0.1
Nov.	3	N.	−	.03	−	2.0
	5	N.	+	.04	−	0.8
	6	E.	+	.06	+	2.1
Mean	. . . .		−	.046	+	0.11
Div. .	. . . .			. .	−	0.12
Flex., etc.	. . .			. .	+	1.06

α CEPHEI.

				s.		″
Aug.	6	F.	−	.44	−	0.7
Sept.	7	F.	−	.32	+	3.2
	30	F.	−	.11	+	0.6
Oct.	1	T.	+	.18	+	1.6
	5	N.	+	.13	−	0.5
	6	F.	−	.24	−	0.7
	7	T.	+	.15	+	1.1
	12	N.	+	.14	+	1.1
Mean	. . . .		−	.064	+	0.6
Div. .	. . . .			. .	−	0.2
Flex., etc.	. . .			. .	+	0.5

α CEPHEI, (Ref.)

				s.		″
Aug.	12	T.		.00	−	4.3
	19	T.	−	.03	−	3.5
	20	F.	−	.11	−	1.2
	26	T.	+	.24	−	2.6
Oct.	13	F.	−	.06	−	4.7
	16	F.	+	.09	−	4.6
Mean	. . . .		+	0.22	−	3.4
Div. .	. . . .			. .	−	0.0
Flex., etc.	. . .			. .	+	1.56

α CEPHEI, S. P.

				s.		″
April	1	Ha.	−	.08	+	2.1
Nov.	12	N.	−	.21		0.0
	18	T.	−	.05	+	2.7
	23	F.	+	.55	−	1.1
Mean	. . . .		+	.052	+	0.2
Div. .	. . . .			. .	−	0.15
Flex., etc.	. . .			. .	−	0.14

ι PEGASI.

				s.		″
Sept.	8	Ha.	−	.06	+	2.4
	10	Ha.	−	.10	+	1.5
	17	Ha.	−	.04	−	1.4
	18	Ha.	−	.12	+	0.5
	19	Ha.	−	.12	+	1.3
	21	Ha.	−	.09	+	0.2
Oct.	29	E.	−	.13	+	0.4
Nov.	3	N.	−	.02	+	3.1
	6	E.	−	.01	+	2.2
Mean	. . . .		−	.077	+	1.2
Div. .	. . . .			. .	+	0.0
Flex., etc.	. . .			. .	+	1.0

β AQUARII.

				s.		″
Aug.	6	F.	+	.06		. .
	19	T.	+	.04	−	0.5
Sept.	8	Ha.	+	.02	+	1.5
	10	Ha.	+	.03		0.0
	17	Ha.	+	.07	−	0.2
	19	Ha.		.00	−	0.7
	21	Ha.	+	.02	−	0.9
Mean	. . . .		+	.034	−	0.15
Div. .	. . . .			. .	+	0.3
Flex., etc.	. . .			. .	+	0.1

β CEPHEI.

				s.		″
Sept.	18	Ha.		.00	−	2.5
Oct.	2	N.	+	.31	−	1.2
	12	N.	+	.29		0.
Mean	. . . .		+	.200	−	1.2
Div. .	. . . .			. .	+	0.0
Flex., etc.	. . .			. .	+	0.2

β CEPHEI, (Ref.)

				s.		″
Sept.	7	F.	−	.15	−	4.4
Oct.	1	T.	+	.30	−	5.4
	5	N.	+	.31	−	3.3
	13	F.	−	.22	−	4.9

β Cephei, (Ref.)—Continued.

				s.		″
Oct.	16	F.	−	.14	−	4.8
	24	T.	+	.18	−	3.6
	26	E.	−	.17	−	4.4
Mean			−	.016	−	4.37
Div.				. .	+	0.10
Flex., etc. . . .				. .	+	1.82

β Cephei, S. P.

Feb.	12	Ha.	+	.27	−	0.8
Mar.	18	Ha.	−	.11	+	2.5
April	21	N.	+	.33	−	0.2
Mean			+	.163	+	0.50
Div.				. .	+	0.05
Flex., etc. . . .				. .	−	0.07

ξ Aquarii.

Aug.	17	F.	−	.05		0.0
Sept.	8	Ha.	+	.01	+	1.6
	10	Ha.	+	.07	−	0.1
	17	Ha.	+	.06	−	0.6
	19	Ha.	+	.08	−	0.8
	21	Ha.	+	.01	−	1.1
Oct.	6	F.	+	.06	−	0.5
	29	E.	+	.02	−	3.1
Nov.	3	E.	+	.06	+	0.7
	6	E.	+	.12	+	0.6
Mean			+	.044	−	0.25
Div.				. .	+	0.43
Flex., etc. . . .				. .	+	0.93

ε Pegasi.

Aug.	6	F.	−	.06	+	0.1
	12	T.	+	.01	+	0.9
	13	F.	−	.01	+	0.6
Sept.	17	Ha.	−	.06	−	1.0
Oct.	1	T.	+	.01	+	0.9
	5	N.	+	.01	−	0.1
	6	F.	−	.10	−	0.3
	7	T.	−	.06	+	0.7
	12	N.		.00	+	1.1
	24	T.	−	.01	+	0.2
	26	E.	+	.03	−	0.3
Mean			−	.022	+	0.25
Div.				. .	+	0.07
Flex., etc. . . .				. .	+	1.00

ε Pegasi, (Ref.)

Aug.	29	T.	+	.05	−	0.2
	31	F.	−	.01	−	0.9
Mean			+	.020	−	0.55
Div.				. .	−	0.02
Flex., etc. . . .				. .	+	1.22

11 Cephei.

Sept.	18	Ha.	−	.23	−	1.7
Oct.	2	N.	−	.06	−	1.2
	13	F.	−	.10	+	0.5
	16	F.	−	.17	+	1.2
Mean			−	.140	−	0.30
Div.				. .	+	0.08
Flex., etc. . . .				. .	+	0.25

11 Cephei, (Ref.)

Oct.	29	E.	−	.52	−	0.4
Nov.	3	E.	−	.16	−	2.3
	4	T.	+	.09	−	4.4
	5	N.	−	.13	−	2.2
	6	E.	−	.24	−	3.0
Mean			−	.192	−	2.46
Div.				. .	−	0.11
Flex., etc. . . .				. .	+	1.81

μ Capricorni.

				s.		″
Aug.	29	T.	−	.06	−	0.8
Sept.	18	Ha.	+	.04	−	0.6
	30	F.		. .	+	2.3
Oct.	1	T.	−	.03	+	3.3
	2	N.		. .	−	0.7
	6	F.	+	.03		. .
	7	T.	−	.01	+	2.2
	12	N.	+	.07	+	1.7
Nov.	5	N.	−	.03	+	3.7
Mean			+	.001	+	1.39
Div.				. .	+	0.16
Flex., etc. . . .				. .	+	0.89

79 Draconis.

Aug.	5	T.	+	.73	−	1.8
Oct.	1	T.	+	.48	+	2.5
	2	N.	−	.05	−	0.7
	5	N.	+	.32	+	1.5
	6	F.	−	.13	−	0.8
	7	T.	+	.26	−	0.5
	12	N.	+	.38	+	1.3
	13	F.	+	.33	+	2.2
	16	F.	+	.07	+	0.2
Mean			+	.265	+	0.44
Div.				. .	+	0.16
Flex., etc. . . .				. .	+	0.24

79 Draconis, (Ref.)

Oct.	26	E.		. .	−	1.6
	29	E.		. .	−	0.5
Nov.	3	E.	+	.31	−	3.0
	4	T.	−	.07	−	2.9
	5	N.	−	.09	−	2.1
	6	E.	−	.20	−	4.7
Mean			−	.012	−	2.47
Div.				. .	−	0.14
Flex., etc. . . .				. .	+	1.80

79 Draconis, S. P.

Mar.	18	Ha.	−	.29	+	0.2
April	6	N.	−	.12		0.0
	21	N.	+	.15	−	0.6
Mean			−	.087	−	0.13
Div.				. .	+	0.08
Flex., etc. . . .				. .	+	0.04

α Aquarii.

April	5	N.		.00	−	0.8
Aug.	26	T.	+	.03	−	0.4
Oct.	1	T.	+	.02	+	2.2
	17	T.	+	.10	−	0.1
	26	E.	+	.13	+	0.7
	29	E.	+	.06		. .
	30	F.	+	.02	+	3.3
Nov.	3	E.	+	.03	−	1.0
	4	T.	+	.03	−	0.1
	5	N.	−	.01	−	0.2
	6	E.	+	.08	+	4.3
	21	T.	+	.03		. .
Dec.	18	F.	+	.02	+	0.8
Mean			+	.042	+	0.61
Div.				. .	+	0.18
Flex., etc. . . .				. .	+	0.96

α Aquarii, (Ref.)

Aug.	29	T.	+	.01	+	1.0
Oct.	5	N.	+	.06		0.0
	7	T.		. .	−	1.2
	12	N.	+	.02	−	1.9
Nov.	12	N.		. .	−	0.8
Mean			+	.030	−	0.58
Div.				. .	−	0.27
Flex., etc. . . .				. .	+	1.18

θ Aquarii.

				s.		″
Oct.	2	N.		. .	+	0.3
	5	N.	+	.04	−	0.1
	7	T.	+	.03	+	0.9
	12	N.	+	.07	+	0.8
	16	F.		. .	+	2.9
	26	E.	+	.03	+	0.4
	28	T.	−	.04	−	0.3
Nov.	4	T.	+	.02	+	0.2
	7	T.		. .	−	0.5
	9	N.	+	.01	−	0.8
	11	T.		. .	+	1.5
Mean			+	.023	+	0.45
Div.				. .	+	0.43
Flex., etc. . . .				. .	+	0.93

π Aquarii.

Aug.	5	T.	+	.03	−	0.1
Sept.	4	Ha.		. .		0.0
	7	F.		. .	+	3.5
Oct.	5	N.	−	.06	−	0.4
	7	T.	+	.03	−	0.8
	28	T.		.00		. .
Nov.	9	N.	−	.05	−	1.6
Dec.	19	T.	−	.05	−	2.2
Mean			−	.017	−	0.47
Div.				. .	+	0.18
Flex., etc. . . .				. .	+	0.97

π Aquarii, (Ref.)

Oct.	29	E.	−	.06	−	2.8
	30	F.	+	.08	−	0.9
Nov.	3	E.	+	.08	−	0.3
	4	T.		. .	−	0.9
	6	E.	+	.10	−	0.4
	11	T.	+	.07	−	2.8
Mean			+	.054	−	1.35
Div.				. .	−	0.18
Flex., etc. . . .				. .	+	1.18

η Aquarii.

Sept.	4	Ha.		. .	+	2.2
	19	Ha.	+	.07		0.0
	30	F.	+	.07	+	2.1
Oct.	6	F.	+	.04	+	1.1
	29	E.	+	.02	−	0.7
	30	F.	−	.01	+	1.3
Nov.	3	E.	+	.12		0.0
	6	E.	+	.05	−	0.1
Mean			+	.051	+	0.74
Div.				. .	+	0.18
Flex., etc. . . .				. .	+	0.96

226 Cephei.

Oct.	16	F.	−	.28	+	1.8
	26	E.	−	.58	−	0.9
Nov.	5	N.	−	.07	−	1.9
	9	N.	−	.27	−	2.4
	11	T.	+	.64	−	0.9
	12	N.	−	.30	−	1.5
Mean			−	.143	−	1.10
Div.				. .	+	0.16
Flex., etc. . . .				. .	+	0.22

226 Cephei, S. P.

Mar.	24	A.	−	.56		. .
	30	N.		. .	+	1.0
Div.				. .	+	0.08
Flex., etc. . . .				. .		0.00

ζ Pegasi.

April	3	N.		. .	+	0.8
	5	N.	+	.02	−	0.7
Sept.	4	Ha.		. .	−	1.6
	19	Ha.	−	.07	−	1.1
Oct.	17	T.	+	.17	−	1.1
Nov.	9	N.	+	.04	−	1.3

ζ PEGASI—Continued.

				s.		"
Nov.	11	T.	+	.06	−	0.4
	12	N.	+	.10	−	0.2
Mean			+	.053	−	0.70
Div.				. .	+	0.04
Flex., etc.				. .	+	1.01

ζ PEGASI, (Ref.)

				s.		"
Oct.	7	T.	+	.07	−	1.6
	17	T.	+	.17	−	1.1
	29	E.	−	.03	−	0.3
	30	F.	+	.03	−	0.1
Nov.	3	E.	+	.13	+	0.8
	5	N.	+	.09	+	0.5
	6	E.	+	.09	+	0.5
Mean			+	.079	−	0.19
Div.				. .	+	0.05
Flex., etc.				. .	+	1.22

ι CEPHEI.

				s.		"
Sept.	4	Ha.	−	.15	−	1.3
	19	Ha.	+	.01	−	2.8
Oct.	7	T.		. .	−	1.0
Nov.	9	N.	−	.03	−	1.9
	11	T.	+	.49	−	0.7
Mean			+	.080	−	1.54
Div.				. .	−	0.13
Flex., etc.				. .	+	0.28

ι CEPHEI, (Ref.)

				s.		"
Aug.	5	T.	+	.54	+	1.9
Oct.	1	T.	+	.34	−	4.4
	7	T.	+	.23	−	2.1
	12	N.	+	.21	−	3.6
Mean			+	.333	−	2.42
Div.				. .	−	0.04
Flex., etc.				. .	+	1.84

ι CEPHEI, S. P.

				s.		"
April	27	N.	+	.08	−	1.4
Div.				. .	−	0.08
Flex., etc.				. .	−	0.11

λ AQUARII.

				s.		"
Aug.	26	T.	+	.14	−	0.9
	29	T.	+	.13	−	0.4
Oct.	5	N.	+	.09	−	0.9
	6	F.	+	.09	−	0.1
	13	F.	+	.06	+	2.4
	16	F.		. .	+	3.6
	26	E.	+	.16	−	0.6
	28	T.	+	.09	−	1.5
	29	E.	+	.08	−	0.4
	30	F.	+	.08	−	0.2
Nov.	3	E.	+	.08	−	1.9
	4	T.	+	.17	−	0.4
	6	E.	+	.15	−	0.4
Mean			+	.110	−	0.30
Div.				. .	+	0.43
Flex., etc.				. .	+	0.93

α PISCIS AUSTRALIS.

				s.		"
Aug.	13	F.		. .	+	1.6
Sept.	18	Ha.	+	.02	+	0.3
	19	Ha.	+	.05		0.0
Oct.	5	N.	−	.02	+	1.6
	28	T.	+	.02	+	0.5
Nov.	3	E.	+	.13	+	2.4
	5	N.	+	.04	+	1.2
	6	E.	+	.08	+	3.1
	9	N.	+	.09	+	0.5
	11	T.	+	.03	−	1.2
	12	N.	+	.13	+	1.3
Mean			+	.057	+	1.05
Div.				. .	−	0.19
Flex., etc.				. .	+	0.75

α PEGASI.

				s.		"
Feb.	11	A.		. .	+	1.2
	12	Ha.	+	.05	+	1.4
April	3	N.		. .	+	2.2
	7	N.	+	.01	+	0.4
Sept.	4	Ha.		. .	+	0.3
	18	Ha.	−	.11	+	0.4
Oct.	7	T.	−	.04	+	2.1
	13	F.	+	.02	+	4.7
	17	T.	+	.19	+	0.7
Nov.	6	E.	+	.04	+	5.2
	24	H.	+	.02	+	0.8
Mean			+	.022	+	1.55
Div.				. .	+	0.08
Flex., etc.				. .	+	1.03

α PEGASI, (Ref.)

				s.		"
Oct.	1	T.	+	.18	−	1.6
	5	N.	+	.01	+	0.2
	23	F.		.00		0.0
	28	T.	+	.02	+	2.1
	29	E.	−	.10	+	0.3
	30	F.	−	.01	+	1.3
Nov.	3	E.	+	.07	+	2.4
Mean			+	.024	+	0.67
Div.				. .	+	0.18
Flex., etc.				. .	+	1.24

ο CEPHEI.

				s.		"
Oct.	1	T.	+	.36	+	0.5
	5	N.	−	.02	−	1.0
	6	F.		.00	−	2.0
	7	T.	+	.06	−	0.8
	17	T.	+	.15	−	1.8
	28	T.	+	.19	+	0.3
	29	E.	−	.02	−	1.4
	30	F.	+	.12	−	2.9
Nov.	3	E.	−	.34	−	1.7
	6	E.	+	.13	−	0.1
	13	E.	−	.67	+	0.4
Mean			−	.004	−	0.95
Div.				. .	−	0.07
Flex., etc.				. .	+	0.27

ο CEPHEI, S. P.

				s.		"
Mar.	24	A.	−	.17		. .
Dec.	5	T.	+	.03	+	0.4
Mean			−	.070	+	0.40
Div.				. .		0.00
Flex., etc.				. .	−	0.10

θ PISCIUM.

				s.		"
Aug.	5	T.	+	.08	−	0.4
	13	F.	+	.15	+	1.1
	29	T.	+	.02	−	2.7
Sept.	4	Ha.		. .	−	1.9
Oct.	7	T.	+	.03	−	0.6
	12	N.	+	.02	+	1.6
	17	T.	+	.13	−	2.8
	28	T.	+	.09	−	1.2
Nov.	7	T.	+	.01	−	1.3
	13	E.	+	.04	−	0.3
	24	H.	+	.01	−	0.8
Mean			+	.058	−	0.89
Div.				. .	+	0.13
Flex., etc.				. .	+	0.99

ι PISCIUM.

				s.		"
Aug.	13	F.	+	.10	+	1.0
Sept.	4	Ha.		. .	−	1.5
	7	F.		. .		0.0
	30	F.	−	.03	+	2.5
Oct.	1	T.	−	.01	+	1.1
	6	F.	−	.04	−	0.3

ι PISCIUM—Continued.

				s.		"
Nov.	6	E.	+	.02	−	0.4
	13	E.	−	.01	+	3.2
Dec.	5	H.		. .	−	1.2
	9	H.		. .	+	0.6
	10	H.		. .	+	1.2
Mean			+	.005	+	0.52
Div.				. .	+	0.14
Flex., etc.				. .	+	0.5[illegible]

ι PISCIUM, (Ref.)

				s.		"
Oct.	28	T.		. .	−	2.1
Nov.	5	N.	−	.12	−	1.0
	7	T.	−	.02		0.0
	9	N.	−	.14	−	1.4
	11	T.	−	.07	+	0.2
	12	N.	−	.06	−	1.6
Mean			−	.082	−	0.95
Div.				. .	−	0.13
Flex., etc.				. .	+	0.9[illegible]

γ CEPHEI.

				s.		"
Oct.	5	N.	+	.04	+	0.3
	7	T.	+	.52	+	0.5
	16	F.	+	.27	−	1.0
	17	T.	+	.58	+	0.4
Mean			+	.358	+	0.0[illegible]
Div.				. .	+	0.16
Flex., etc.				. .	+	0.21

γ CEPHEI, (Ref.)

				s.		"
Oct.	12	N.	+	.30	−	3.1
	13	F.	−	.25	−	4.7
	29	E.	−	.18	−	1.5
Nov.	3	E.	+	.05	−	1.1
Mean			−	.020	−	2.6[illegible]
Div.				. .	−	0.18
Flex., etc.				. .	+	1.7[illegible]

γ CEPHEI, S. P.

				s.		"
April	23	E.	−	.02	+	0.4
May	18	N.	+	.34	−	0.5
	21	N.	+	.25	−	1.3
Mean			+	.190	−	0.4[illegible]
Div.				. .	+	0.0[illegible]
Flex., etc.				. .		0.00

GROOMBRIDGE 4163.

				s.		"
Sept.	4	Ha.	−	.09	−	2.4
	7	F.	+	.26	+	0.3
	18	Ha.	+	.25	−	3.3
Oct.	7	T.	+	.25	−	1.2
	12	N.	−	.01	+	0.5
	13	F.		.00	+	1.0
	28	T.	+	.34	+	1.9
Nov.	13	E.		. .	+	1.0
Mean			+	.143	−	0.0[illegible]
Div.				. .	+	0.1[illegible]
Flex., etc.				. .	+	0.24

ω PISCIUM.

				s.		"
July	10	T.	−	.01	−	0.6
Aug.	20	F.	−	.08	−	1.2
Sept.	4	Ha.		. .	−	1.1
	7	F.	+	.01	−	0.2
Oct.	6	F.	−	.04	−	0.5
	7	T.	−	.05	−	0.5
	12	N.	−	.08	−	0.7
	23	F.		.00	−	0.1
	28	T.	−	.06	−	1.5
Nov.	11	T.	−	.04	−	0.0
	13	E.		. .	−	1.[illegible]
Dec.	23	H.		. .	−	0.2
Mean			−	.039	−	0.72
Div.				. .	+	0.15
Flex., etc.				. .	+	0.9[illegible]

MEAN RIGHT ASCENSIONS FOR 1870.0

OF

STARS OBSERVED

WITH THE

TRANSIT INSTRUMENT,

1868.

MEAN RIGHT ASCENSIONS FOR 1870.0.

TRANSIT INSTRUMENT.

	h.	m.	s.	Mag.
Lacaille 9723—36° 50′.				
Oct. 12 . .	0	0	1.02	7.0
Nov. 6 . .			1.03	
Weisse (2) 1312+37° 53′.				
Oct. 5 . .	0	0	7.05	8.0
Nov. 3 . .			7.01	7.5
Weisse 1218+1° 8′.				
Dec. 1 . .	0	0	12.27	8.5
B. A. C. 8375—39° 36′.				
Oct. 17 . .	0	0	15.87	6.0
26 . .			15.99	6.5
Weisse 1227—11° 46′.				
Nov. 27 . .	0	0	44.22	8.5
30 . .			44.17	9.0
Lalande 47298+36° 27′.				
Nov. 5 . .	0	1	0.85	7.0
18 . .			1.00	
4 Ceti—3° 17′.				
Dec. 2 . .	0	1	4.44	5.5
5 Ceti—3° 11′.				
Sept. 30 . .	0	1	32.70	5.5
Nov. 13 . .			32.69	
α Andromedæ+28° 22′.				
Oct. 23 . .	0	1	40.27	
O. Arg. S. 8—19° 56′.				
Nov. 24 . .	0	1	41.05	8.5
Weisse 1250+2° 43′.				
Nov. 30 . .	0	1	42.08	7.7
Weisse 1251+5° 53′.				
Oct. 28 . .	0	1	44.95	7.0
O. Arg. S. 9—19° 57′.				
Nov. 24 . .	0	1	45.18	8.5
Lacaille 9737—35° 31′.				
Dec. 1 . .	0	2	9.23	
Weisse 10+1° 34′.				
Dec. 1 . .	0	2	49.40	
Weisse 24+3° 26′.				
Nov. 3 . .	0	3	17.19	8.0
Lacaille 9747—26° 35′.				
Oct. 17 . .	0	3	21.49	6.5
Weisse 28—9° 42′.				
Nov. 18 . .	0	3	23.89	6.0
(*)+4° 22′.				
Nov. 14 . .	0	3	36.68	8.5
B. A. C. 17—5° 59′.				
Nov. 10 . .	0	3	39.53	
O. Arg. S. 36—22° 52′.				
Dec. 2 . .	0	3	57.91	8.5
Weisse 44+1° 34′.				
Dec. 1 . .	0	3	59.62	8.0
Lalande 17+36° 44′.				
Oct. 1 . .	0	4	2.57	7.0
26 . .			2.30	6.5
Lalande 26+39° 0′.				
Oct. 5 . .	0	4	9.97	8.0
23 . .			10.04	8.0
Lacaille 9753—35° 35′.				
Nov. 5 . .	0	4	10.25	6.0
13 . .			10.33	5.5
(*)+4° 22′.				
Oct. 12 . .	0	4	10.54	7.8
(*)+6° 8′.				
Nov. 14 . .	0	4	51.60	8.5
24 . .			51.61	9.0
B. A. C. 23—28° 32′.				
Nov. 30 . .	0	4	58.15	5.0
Lalande 65+38° 18′.				
Oct. 5 . .	0	5	21.45	7.0
26 . .			21.32	7.3
B. A. C. 25—42° 54′.				
Nov. 3 . .	0	5	23.40	5.5
O. Arg. S. 47—18° 40′.				
Oct. 28 . .	0	5	32.11	5.0
Nov. 23 . .			32.15	5.5
Lacaille 1—43° 54′.				
Oct. 17 . .	0	6	7.03	7.0
Nov. 27 . .			7.10	7.5
Weisse 89+6° 10′.				
Oct. 1 . .	0	6	21.34	8.5
Nov. 18 . .			21.40	9.0
γ Pegasi+14° 27′.				
Sept. 30 . .	0	6	32.67	
Nov. 6 . .			32.67	
Lacaille 4—43° 48′.				
Nov. 5 . .	0	6	36.55	8.0
13 . .			36.60	7.5
Lacaille 5—27° 3′.				
Oct. 12 . .	0	6	39.72	7.0
23 . .			39.58	6.0
Lacaille 9—27° 1′.				
Dec. 1 . .	0	7	8.78	6.0
Lamont 21—0° 45′.				
Nov. 30 . .	0	7	24.37	8.2
Lalande 181+37° 20′.				
Nov. 10 . .	0	8	18.07	
24 . .			17.94	7.5
B. A. C. 37—35° 38′.				
Oct. 28 . .	0	8	24.09	6.0
Nov. 3 . .			23.99	5.5
Weisse 124—6° 52.				
Nov. 14 . .	0	8	37.99	7.2
18 . .			38.14	6.5
(*)—32° 46′.				
Nov. 5 . .	0	8	47.92	8.0
13 . .			48.12	8.3
Lalande 201+38° 16′.				
Oct. 5 . .	0	8	57.53	8.0
26 . .			57.51	7.5
B. A. C. 41—41° 11′.				
Oct. 17 . .	0	8	58.03	6.0
Nov. 23 . .			57.99	7.0
Lalande 231+39° 4′.				
Nov. 30 . .	0	9	7.52	8.0
Lacaille 21—35° 53′.				
Oct. 12 . .	0	9	10.72	7.5
Dec. 2 . .			10.52	8.3
(*)+7° 26′.				
Nov. 27 . .	0	9	24.21	7.5
36 Piscium+7° 30′.				
Nov. 27 . .	0	9	53.45	5.5
Lalande 220+35° 45′.				
Oct. 1 . .	0	9	56.47	7.0
Nov. 7 . .			56.54	7.0
Lalande 221+35° 53′.				
Oct. 1 . .	0	9	56.62	6.0
(*)+35° 53′.				
Nov. 7 . .	0	9	57.81	8.3
(*)+37° 39′.				
Dec. 1 . .	0	10	2.53	8.8
θ Andromedæ+37° 57′.				
Nov. 24 . .	0	10	18.28	5.0
(*)+35° 49′.				
Oct. 23 . .	0	10	19.62	8.5
Lalande 251+35° 49′.				
Oct. 23 . .	0	10	45.34	7.0
(*)—6° 54′.				
Nov. 14 . .	0	11	9.76	8.0
(*)—6° 56′.				
Nov. 14 . .	0	11	10.02	9.0
(*)+0° 13′.				
Nov. 3 . .	0	11	20.99	9.2
18 . .			21.13	9.2
σ Andromedæ+36° 3′.				
Oct. 17 . .	0	11	32.61	4.5
26 . .			32.36	5.0
Lalande 330+36° 14′.				
Nov. 5 . .	0	12	58.36	7.0
6 . .			58.41	6.5
Lalande 335+37° 30′.				
Oct. 5 . .	0	13	12.47	6.0
12 . .			12.67	6.5
ρ Andromedæ+37° 14.				
Oct. 23 . .	0	14	16.76	5.0
Nov. 3 . .			16.55	4.5
Lalande 380+37° 40′.				
Oct. 5 . .	0	14	19.53	8.3
12 . .			19.64	7.8

	h. m. s.	Mag.
Lalande 383+35° 9'.		
Oct. 26 . .	0 14 20.26	6.5
28 . .	20.24	7.0
Weisse 236−5° 55'.		
Nov. 14 . .	0 14 36.14	6.5
(*)+44° 12'.		
Nov. 24 . .	0 14 48.97	9.0
27 . .	48.90	8.8
30 . .	48.93	9.0
ι Sculptoris−29° 42'.		
Oct. 17 . .	0 14 58.99	5.0
Nov. 18 . .	59.10	5.0
Weisse 245+5° 10'.		
Nov. 7 . .	0 15 10.44	8.5
13 . .	10.54	8.2
Lalande 409+37° 2'.		
Nov. 23 . .	0 15 26.22	7.5
(*)+44° 14'.		
Nov. 27 . .	0 15 38.94	8.0
Lalande 421+38° 1'.		
Oct. 1 . .	0 16 6.15	6.5
Nov. 5 . .	6.04	6.0
(*)+37° 51'.		
Oct. 26 . .	0 16 40.85	8.5
Nov. 3 . .	40.93	9.0
O. Arg. S. 160−24° 7'.		
Nov. 14 . .	0 17 40.61	8.3
O. Arg. S. 163−29° 42.		
Oct. 12 . .	0 17 47.81	7.5
17 . .	47.75	7.0
B. A. C. 81−2° 56'		
Nov. 18 . .	0 17 51.24	5.5
(*)+7° 3'.		
Nov. 13 . .	0 18 10.85	9.0
Lalande 489+38° 18'.		
Nov. 30 . .	0 18 13.69	
Lalande 508+35° 45'.		
Oct. 23 . .	0 18 45.65	7.0
28 . .	45.44	7.7
Nov. 5 . .	45.49	7.7
Lalande 509+36° 3'.		
Nov. 7 . .	0 18 45.86	8.3
23 . .	45.98	8.0
Lacaille 81−39° 59'.		
Dec. 1 . .	0 18 56.14	6.0
(*)+49° 16'.		
Nov. 24 . .	0 20 10.10	8.3
O. Arg. N. 362+49° 16.'		
Nov. 24 . .	0 20 11.93	7.7

	h. m. s.	Mag.
Lacaille 90−26° 17.'		
Nov. 13 . .	0 20 43.63	5.5
(*)+1° 11'.		
Oct. 12 . .	0 20 48.36	9.0
17 . .	48.30	9.0
Nov. 27 . .	48.33	9.0
48 Piscium+15° 43'.		
Nov. 3 . .	0 21 27.58	5.5
7 . .	27.45	5.5
(*)+7° 25'.		
Nov. 6 . .	0 21 46.17	9.5
O. Arg. S. 210−21° 3'.		
Nov. 18 . .	0 21 49.87	6.5
(*)+36° 10'.		
Oct. 1 . .	0 22 2.89	6.0
23 . .	2.80	6.0
Lalande 656+37° 36'.		
Oct. 26 . .	0 22 56.91	6.0
28 . .	56.90	7.0
Nov. 5 . .	56.98	7.0
Lalande 658−4° 44'.		
Nov. 23 . .	0 23 0.14	8.3
(*)−36° 27'.		
Nov. 30 . .	0 23 8.95	8.5
(*)+42° 39'.		
Dec. 1 . .	0 23 17.61	8.5
2 . .	17.65	8.5
Groombridge 73+42° 39'.		
Dec. 1 . .	0 23 20.10	8.2
2 . .	20.14	8.2
B. A. C. 115−24° 30'.		
Nov. 24 . .	0 23 52.57	5.0
(*)+15° 16'.		
Nov. 7 . .	0 24 2.05	7.0
10 . .	2.17	
(*)+38° 15'.		
Oct. 12 . .	0 24 24.90	
17 . .	24.89	6.0
Lalande 713+38° 15'.		
Oct. 12 . .	0 24 28.66	
17 . .	28.54	6.0
B. A. C. 122+15° 16'.		
Nov. 7 . .	0 24 50.60	7.2
Lalande 736+36° 14'.		
Oct. 1 . .	0 24 54.31	7.8
23 . .	54.15	7.5
Lalande 762+38° 7'.		
Oct. 17 . .	0 25 46.30	6.0
26 . .	46.13	6.0

	h. m. s.	Mag.
Weisse 421−9° 45'.		
Oct. 28 . .	0 26 0.90	8.5
Nov. 5 . .	0.78	8.5
6 . .	0.89	8.2
Weisse 434−4° 34'.		
Nov. 13 . .	0 26 33.58	6.0
Weisse 437−4° 45'		
Nov. 14 . .	0 26 47.00	8.0
Weisse 439−1° 19'.		
Nov. 18 . .	0 26 50.09	7.3
Lacaille 126−39° 24'		
Oct. 12 . .	0 27 16.03	7.3
Nov. 3 . .	15.90	7.0
B. A. C. 136 (2d *)−35° 42'.		
Nov. 23 . .	0 27 21.23	8.0
(*)+36° 6'.		
Oct. 1 . .	0 28 11.93	8.5
23 . .	11.80	9.0
Lalande 849+36° 6'.		
Oct. 1 . .	0 28 12.73	6.0
23 . .	12.56	6.0
Weisse 466+3° 39'.		
Nov. 18 . .	0 28 15.46	8.3
Rumker 138+34° 56'.		
Oct. 28 . .	0 28 33.42	7.0
Nov. 24 . .	33.56	5.0
Lalande 863+35° 51'.		
Nov. 5 . .	0 28 36.94	7.8
7 . .	37.06	8.3
Lalande 884+37° 31'.		
Oct. 26 . .	0 29 7.43	6.3
Nov. 6 . .	7.71	6.0
Rumker 235+6° 26'.		
Nov. 27 . .	0 29 20.67	7.2
ζ Cassiopeæ+53° 10'.		
Nov. 30 . .	0 29 44.58	5.0
Weisse (2) 746+26° 20'.		
Nov. 24 . .	0 29 51.67	7.5
(*)−39° 1'.		
Oct. 12 . .	0 29 55.40	8.0
17 . .	55.10	6.5
53 Piscium+14° 31'.		
Nov. 13 . .	0 30 1.08	5.5
14 . .	0.98	5.5
(*)−25° 13'.		
Nov. 3 . .	0 30 18.91	7.0
Dec. 2 . .	18.98	7.5

	h. m. s.	Mag.
(*)−25° 12'.		
Nov. 3 . .	0 30 23.05	7.5
Dec. 2 . .	23.10	7.5
Weisse (2) 746+26° 20'.		
Dec. 1 . .	0 30 24.64	7.5
Weisse 503−1° 35'.		
Nov. 27 . .	0 30 30.78	8.5
Weisse 510+7° 18'.		
Nov. 23 . .	0 30 59.17	7.5
Lalande 963+36° 20'.		
Oct. 1 . .	0 31 18.74	8.3
28 . .	18.38	8.5
Nov. 5 . .	18.64	8.2
Lalande 966+37° 18.		
Nov. 6 . .	0 31 28.12	6.5
Dec. 1 . .	28.03	7.3
Lalande 975+35° 52'.		
Nov. 7 . .	0 31 43.97	8.5
(*)−25° 23'.		
Oct. 26 . .	0 31 57.39	8.0
Dec. 2 . .	57.31	
Weisse 832+26° 1'.		
Nov. 13 . .	0 32 35.63	8.0
14 . .	35.66	8.0
Lalande 1003+36° 4'.		
Oct. 23 . .	0 32 35.76	7.0
Lacaille 162−34° 40'.		
Nov. 30 . .	0 33 3.62	7.0
55 Piscium+20° 43'.		
Nov. 18 . .	0 33 5.26	5.5
(*)−25° 45'.		
Nov. 3 . .	0 33 24.53	8.2
24 . .	24.65	7.5
Lacaille 164−42° 23'.		
Oct. 12 . .	0 33 31.04	8.0
17 . .	30.96	8.0
32 Andromedæ+38° 44'.		
Oct. 1 . .	0 34 4.84	5.5
Nov. 6 . .	4.76	5.
Weisse 588+2° 55'.		
Nov. 23 . .	0 35 4.93	8.0
(*)−25° 55'.		
Oct. 26 . .	0 35 8.80	6.0
28 . .	8.87	6.0
(*)+2° 3'.		
Nov. 27 . .	0 35 18.23	8.5
(*)−6° 21'.		
Nov. 14 . .	0 35 38.24	9.2

		h. m. s.	Mag.
β Ceti−18° 42′.	ov. 3 . .	0 37 3.73	
	18 . .	3.71	
	30 . .	3.69	
	ec. 2 . .	3.77	
Weisse 641−6° 21′.	ov. 5 . .	0 37 53.87	8.3
λ² Sculptoris−39° 9′.	ct. 17 . .	0 37 54.58	5.5
	26 . .	54.70	5.0
Weisse 642−14° 8′.	ct. 1 . .	0 37 55.10	7.5
	12 . .	55.12	6.5
18 Ceti−13° 35′.	ct. 23 . .	0 38 56.83	5.0
	28 . .	57.01	5.5
23 Cassiopeæ+74° 8′.	ov. 7 . .	0 39 8.14	
Weisse 665+4° 34′.	ov. 24 . .	0 39 20.96	8.0
(*)−6° 22′.	ov. 5 . .	0 39 29.51	8.5
	23 . .	29.59	8.0
Weisse 678+1° 38′.	ct. 1 . .	0 40 5.77	8.2
	ov. 3 . .	5.60	
58 Piscium+11° 15′.	ec. 1 . .	0 40 14.65	5.5
Lalande 1281+35° 1′.	ct. 12 . .	0 41 5.71	8.0
	17 . .	5.64	8.0
Lacaille 216−37° 38′.	ov. 13 . .	0 41 18.62	7.0
Weisse 704+8° 30′.	ov. 14 . .	0 41 26.16	8.0
Weisse 706+3° 21′.	ov. 24 . .	0 41 29.01	9.0
Groombridge 148+70° 4′.	ov. 18 . .	0 41 45.05	6.5
Weisse 428−15° 27′.	ov. 6 . .	0 42 2.85	8.0
(*)+1° 34′.	ct. 1 . .	0 42 33.06	9.0
	ov. 3 . .	32.87	9.0
Lacaille 223−24° 51′.	ov. 30 . .	0 42 49.42	6.0
i Piscium (1st *)+26° 59′.	ct. 23 . .	0 42 54.26	6.0
	26 . .	54.29	6.0
i Piscium (2d *)+26° 59′.	Oct. 23 . .	0 42 54.60	6.0
	26 . .	54.64	6.0
(138) Washington+3° 34′.	Oct. 28 . .	0 43 2.12	8.8
	Nov. 23 . .	2.09	
O. Arg. S. 452−24° 50′.	Nov. 5 . .	0 43 36.59	7.5
	30 . .	36.67	7.5
Lalande 1390+36° 19′.	Oct. 12 . .	0 44 13.66	7.5
	17 . .	13.71	7.7
Santini 46+2° 41′.	Nov. 6 . .	0 44 36.71	6.0
	13 . .	36.72	6.0
	14 . .	36.57	6.0
	24 . .	36.71	6.0
(*)−1° 14′.	Nov. 27 . .	0 44 37.60	8.0
Weisse 772−1° 12′.	Dec. 2 . .	0 44 59.35	7.7
Lalande 1443+37° 50′.	Oct. 28 . .	0 45 44.20	5.5
	Nov. 3 . .	44.48	6.0
Lalande 1444+38° 19′.	Nov. 18 . .	0 45 49.36	
	Dec. 1 . .	49.35	7.5
Weisse (2) 1167+29° 38′.	Oct. 1 . .	0 46 6.55	7.0
	23 . .	6.38	6.0
Weisse (2) 1172+36° 42′.	Oct. 17 . .	0 46 20.29	6.0
	Nov. 23 . .	20.27	6.5
(*)−1° 32′.	Nov. 24 . .	0 46 44.08	
Weisse 801+8° 36′.	Nov. 5 . .	0 46 44.20	8.4
	13 . .	44.18	9.0
Weisse 802+2° 36′.	Nov. 14 . .	0 46 46.78	9.0
	27 . .	46.89	7.5
(*)−25° 29′.	Nov. 30 . .	0 46 49.45	6.5
Lalande 1492+38° 21′.	Oct. 26 . .	0 47 6.34	6.5
21 Ceti−9° 27′.	Nov. 6 . .	0 47 44.05	5.5
B. A. C. 249−33° 3′.	Dec. 2 . .	0 47 48.62	7.5
(*)−2° 16′.	Oct. 12 . .	0 48 11.20	8.5
	28 . .	10.98	9.0
(*)−1° 30′.	Nov. 24 . .	0 48 54.55	9.5
μ Andromedæ+37° 47′.	Oct. 1 . .	0 49 32.55	5.0
	23 . .	32.44	4.5
(*)−27° 3′.	Nov. 3 . .	0 49 46.33	8.0
	5 . .	46.32	8.5
B. A. C. 263+26° 17′.	Nov. 23 . .	0 50 15.17	6.5
	30 . .	15.17	
Lalande 1627+36° 47′.	Oct. 12 . .	0 50 52.01	7.0
	26 . .	51.95	7.7
Lalande 1629+38° 46′.	Oct. 28 . .	0 50 56.82	6.0
	Dec. 2 . .	57.14	6.0
(*)+1° 47′.	Nov. 14 . .	0 51 17.69	8.0
	27 . .	17.76	7.5
64 Ceti−12° 5′.	Nov. 24 . .	0 52 13.26	5.5
(*)+1° 55′.	Nov. 14 . .	0 52 20.92	9.0
	27 . .	21.01	8.0
Weisse 902+2° 23′.	Nov. 3 . .	0 52 43.32	8.8
	5 . .	43.44	8.5
Rumker 451+3° 16′.	Nov. 23 . .	0 52 56.27	8.3
	30 . .	56.39	8.0
Lalande 1702+34° 59′.	Oct. 1 . .	0 53 9.87	7.0
	23 . .	9.64	6.0
Weisse 912+2° 33′.	Oct. 26 . .	0 53 11.51	
	Nov. 6 . .	11.61	7.7
	13 . .	11.51	7.7
Weisse 918+1° 55′.	Nov. 14 . .	0 53 24.60	8.0
	Dec. 1 . .	24.58	7.7
O. Arg. S. 569−26° 27′.	Oct. 28 . .	0 54 14.45	6.5
	Nov. 18 . .	14.43	7.3
Weisse 950+9° 23′.	Nov. 24 . .	0 55 9.57	8.0
	Dec. 2 . .	9.65	7.7
Lacaille 277−39° 37′.	Oct. 17 . .	0 55 13.62	5.5
B. A. C. 284−38° 55′.	Nov. 3 . .	0 55 30.02	5.5
	13 . .	30.22	5.5
(*)+3° 43′.	Nov. 27 . .	0 55 32.06	9.0
(*)+3° 43′.	Nov. 30 . .	0 55 56.78	8.0
Weisse 969+1° 31′.	Oct. 23 . .	0 56 3.28	8.5
ε Piscium+7° 11′.	Oct. 12 . .	0 56 11.86	
	26 . .	11.81	
	Nov. 5 . .	11.87	
	14 . .	11.83	
Weisse 972+9° 23′.	Dec. 1 . .	0 56 16.22	9.0
	2 . .	16.29	9.0
21 Ceti−5° 32′.	Nov. 23 . .	0 56 28.13	5.0
Weisse 979+2° 33′.	Oct. 28 . .	0 56 43.87	7.0
	Nov. 6 . .	44.02	7.0
Weisse 980+9° 24′.	Nov. 18 . .	0 56 46.11	9.0
Weisse 1002+1° 37′.	Nov. 6 . .	0 58 2.48	6.0
	13 . .	2.40	6.0
(*)+7° 12′.	Nov. 3 . .	0 58 13.18	7.3
	24 . .	13.31	7.8
(*)+7° 12′.	Nov. 24 . .	0 58 26.13	8.2
77 Piscium+4° 13′.	Nov. 23 . .	0 59 5.74	5.5
B. A. C. 312+4° 13′.	Nov. 23 . .	0 59 7.90	6.0
O. Arg. S. 613−29° 1′.	Oct. 17 . .	0 59 12.01	7.0
	26 . .	11.92	7.5
Weisse 1028+2° 34′.	Oct. 1 . .	0 59 23.63	8.0
	28 . .	23.48	6.5
O. Arg. S. 621−27° 21′.	Dec. 1 . .	0 59 33.10	9.0
28 Ceti−10° 32′.	Nov. 5 . .	0 59 33.68	5.0
	7 . .	33.69	
Lacaille 303−24° 42′.	Nov. 18 . .	0 59 49.70	6.0
	30 . .	49.77	5.5

WEISSE (2) 1490+37° 19′.

	h.	m.	s.	Mag.
Dec. 2	1	0	6.13	7.3
WEISSE 1048+3° 7′.				
Oct. 23	1	0	10.29	
Nov. 14			10.29	9.0
LACAILLE 310—24° 42′.				
Nov. 18	1	0	54.31	6.0
Ψ² PISCIUM+20° 2′.				
Nov. 13	1	0	58.90	5.0
O. ARG. S. 644—28° 25′.				
Nov. 3	1	1	23.88	7.0
6			23.97	7.0
η CETI—10° 52′.				
Oct. 17	1	2	2.86	4.0
Nov. 5			3.06	4.0
7			2.88	
LALANDE 2027+37° 25′.				
Oct. 28	1	2	26.95	
Nov. 23			27.06	6.5
β ANDROMEDÆ+34° 56′.				
Nov. 27	1	2	27.65	
(*)+2° 5′.				
Dec. 1	1	2	30.62	9.0
WEISSE 15+2° 23′.				
Oct. 1	1	3	18.79	
12			18.80	8.5
45 ANDROMEDÆ+37° 1′.				
Oct. 23	1	3	52.20	5.0
Nov. 13			52.29	4.5
LAMONT 187—1° 41′.				
Nov. 24	1	4	18.12	9.0
χ PISCIUM+20° 19′.				
Oct. 17	1	4	28.24	4.5
Nov. 3			28.04	5.0
5			28.16	5.0
WEISSE 42+11° 39′.				
Nov. 6	1	4	45.23	8.0
RADCLIFFE 371+48° 5.				
Nov. 14	1	6	10.03	
18			10.12	8.5
WEISSE 65+11° 3′.				
Nov. 7	1	6	16.11	
WEISSE 72—2° 36′.				
Nov. 13	1	6	43.02	8.3
WEISSE 76+10° 7′.				
Nov. 24	1	6	57.67	
88 PISCIUM+6° 18′.				
Oct. 17	1	7	56.77	
23			56.66	6.0

RUMKER 558 (N. F.)+3° 54′.

	h.	m.	s.	Mag.
Oct. 28	1	8	0.82	8.0
Nov. 5			0.97	8.5
O. ARG. S. 704—25° 0′.				
Oct. 26	1	8	4.38	9.0
Nov. 3			4.53	9.0
6			4.47	8.5
(*)+38° 47′.				
Nov. 18	1	9	52.49	7.5
23			52.69	6.0
39 CETI—3° 11′.				
Nov. 13	1	10	0.31	5.0
14			0.15	
(*)+36° 44′.				
Nov. 18	1	10	18.75	9.0
24			18.62	8.5
WEISSE 138+1° 20′.				
Nov. 30	1	10	28.64	
WEISSE 144+12° 52′.				
Dec. 1	1	10	33.96	8.0
2			34.06	7.5
WEISSE 139+4° 0′.				
Oct. 23	1	10	35.87	8.0
Nov. 27			35.93	7.5
41 CETI—8° 21′.				
Oct. 26	1	11	10.40	5.5
Nov. 6			10.47	6.0
LALANDE 2330+36° 42′.				
Nov. 18	1	11	25.50	6.5
24			25.30	
(*)+22° 50′.				
Nov. 24	1	13	53.91	9.0
WEISSE 201+12° 11′.				
Nov. 6	1	13	57.62	8.5
WEISSE 208+11° 14′.				
Nov. 14	1	14	24.90	9.0
(*)—1° 11′.				
Nov. 3	1	15	10.41	9.0
13			10.49	9.2
(*)+38° 20′.				
Nov. 23	1	16	54.34	8.7
43 CETI—1° 10′.				
Nov. 13	1	16	55.97	5.5
(*)+38° 22′.				
Nov. 18	1	16	57.94	8.2
23			58.11	7.7
(*)+38° 20′.				
Nov. 18	1	17	3.16	8.0

δ CASSIOPEÆ+59° 33′.

	h.	m.	s.	Mag.
Nov. 30	1	17	19.98	4.5
θ CETI—8° 52′.				
Oct. 17	1	17	31.52	
24			31.54	
Nov. 27			31.51	
WEISSE 281—6° 40′.				
Dec. 1	1	18	11.83	9.5
WEISSE 280—3° 32′.				
Nov. 5	1	18	12.49	5.0
7			12.31	
O. ARG. S. 818—29° 11′.				
Nov. 3	1	18	17.48	7.2
Dec. 2			17.64	7.0
LALANDE 2559+35° 41′.				
Oct. 23	1	18	19.35	7.0
26			19.22	
WEISSE 288—6° 38′.				
Nov. 13	1	18	27.62	6.0
14			27.51	8.0
(*)—1° 8′.				
Nov. 5	1	19	8.75	8.3
LALANDE 2603+38° 59′.				
Nov. 18	1	19	44.56	7.7
(*)—1° 8′.				
Nov. 5	1	19	46.27	8.0
LALANDE 2614—1° 5′.				
Nov. 5	1	19	48.19	5.5
WEISSE 313+10° 13′.				
Dec. 1	1	19	48.26	8.0
2			48.20	8.0
(61) WASHINGTON+8° 21′.				
Oct. 28	1	21	7.30	
Nov. 3			7.33	9.0
24			7.26	9.0
B. A. C. 439+16° 24′.				
Nov. 14	1	21	24.76	7.0
30			24.80	6.0
B. A. C. 440+7° 16′.				
Nov. 13	1	21	33.98	
WEISSE 348+7° 16′.				
Nov. 13	1	21	38.53	
(*)+13° 59′.				
Nov. 23	1	21	42.30	8.3
96 PISCIUM+6° 37′.				
Oct. 26	1	22	15.96	5.0
Nov. 18			16.08	6.0
WEISSE 375—0° 18′.				
Dec. 1	1	23	13.36	7.8

η PISCIUM+14° 40′.

	h.	m.	s.	Mag.
Oct. 23	1	24	31.76	
28			31.70	
Nov. 13			31.79	
23			31.72	
B. A. C. 454+10° 13′.				
Nov. 30	1	24	50.53	6.5
WEISSE 410+9° 19′.				
Nov. 3	1	25	2.92	[illegible]
5			2.97	[illegible]
WEISSE 414+11° 1′.				
Oct. 26	1	25	19.77	
Nov. 6			19.93	[illegible]
RUMKER 331—3° 48′.				
Nov. 18	1	25	30.72	[illegible]
24			30.70	[illegible]
B. A. C. 460—30° 57′.				
Dec. 1	1	25	42.41	6.
2			42.51	5.5
(*)—2° 19′.				
Nov. 3	1	26	4.40	
WEISSE 432—2° 19′.				
Nov. 3	1	26	5.20	8.5
B. A. C. 464+7° 32′.				
Nov. 30	1	26	29.51	[illegible]
WEISSE 441—2° 28′.				
Nov. 24	1	26	31.42	8.5
WEISSE (2) 575+15° 2′.				
Nov. 13	1	27	2.47	8.5
(*)+15° 5′.				
Nov. 13	1	27	11.11	9.0
(*)—2° 28′.				
Nov. 24	1	27	15.97	9.5
RUMKER 755+6° 6′.				
Nov. 5	1	27	56.67	9.0
18			56.84	8.5
LACAILLE 451—29° 27′.				
Oct. 26	1	28	3.17	6.0
Nov. 6			3.14	6.5
(*)—24° 6′.				
Oct. 28	1	28	52.80	[illegible]
B. A. C. 479—32° 33′.				
Dec. 1	1	28	54.55	[illegible]
(*)—24° 7′.				
Oct. 28	1	28	58.46	[illegible]
Nov. 3			58.36	[illegible]
B. A. C. 481—6° 52′.				
Nov. 14	1	29	14.71	[illegible]

	h. m. s.	Mag.
B. A. C. 482+57° 17′.		
Dec. 2	1 29 39.05	5.0
Lalande 2936+37° 51′.		
Nov. 27	1 29 58.02	7.3
30	58.03	7.5
Lacaille 462−30° 34′.		
Nov. 18	1 30 7.81	7.5
Lacaille 466−32° 58′.		
Nov. 23	1 30 53.49	6.0
Weisse 540+3° 28′.		
Nov. 3	1 32 12.98	8.7
5	12.99	9.0
6	13.05	9.0
103 Piscium+15° 58′.		
Dec. 1	1 32 15 14	6.5
Lalande 3025+36° 14′.		
Oct. 28	1 32 27.32	7.0
Nov. 13	27.55	6.5
105 Piscium+15° 44′.		
Nov. 14	1 32 40.09	5.5
(*)+37° 36′.		
Nov. 27	1 33 25.00	7.5
30	25.04	7.0
Weisse 601+3° 3′		
Nov. 6	1 34 23.98	7.0
B. A. C. 494+86° 17′.		
Dec. 2	1 34 24.92	
B. A. C. 516+34° 35′.		
Nov. 18	1 34 33.04	5.5
23	32.95	5.5
Lacaille 492−34° 3′.		
Nov. 3	1 35 20.18	6.0
5	20.27	6.0
B. A. C. 524+15° 7′.		
Nov. 14	1 35 26.98	6.5
107 Piscium+19° 38′.		
Dec. 1	1 35 26.61	5.7
(*)+5° 5′.		
Nov. 27	1 36 1.04	8.0
30	0.94	8.0
109 Piscium+19° 25′.		
Dec. 1	1 37 50.00	
τ Ceti−16° 37′.		
Nov. 6	1 38 1.91	4.0
ο Piscium+8° 30′.		
Nov. 14	1 38 31.94	
18	31.91	

	h. m. s.	Mag.
Lacaille 509−29° 22′.		
Nov. 30	1 38 59.74	7.0
(*)+3° 1′.		
Nov. 3	1 38 59.93	6.0
5	60.04	5.5
23	59.98	5.5
(*)+38° 5′.		
Nov. 24	1 39 11.28	7.0
27	11.29	6.0
(*)−36° 46′.		
Nov. 13	1 39 42.53	8.0
Dec. 2	42.57	7.3
B. A. C. 544+37° 17′.		
Oct. 26	1 40 58.75	5.0
Nov. 3	58.87	6.0
18	58.99	6.5
(*)+7° 3′.		
Nov. 6	1 41 45.00	8.5
Weisse 740+11° 44′.		
Nov. 23	1 42 14.49	8.5
(*)+13° 38′.		
Nov. 24	1 42 43.95	9.5
1 Arietis (1st *)+21° 37′.		
Nov. 14	1 42 57.82	
1 Arietis (2d *)+21° 37′.		
Nov. 14	1 42 57.84	
(*)+13° 52′.		
Nov. 30	1 43 0.09	8.7
Lalande 3344+13° 42′.		
Nov. 27	1 43 6.53	7.3
Dec. 1	6.46	
2	6.59	7.5
(*)+13° 39′.		
Nov. 24	1 43 20.41	9.0
B. A. C. 563−39° 2′.		
Oct 28	1 44 12.05	5.5
Nov. 3	11.84	5.5
O. Arg. S. 1116−23° 24′.		
Nov. 6	1 44 15.23	8.2
(*)+36° 42′.		
Oct. 26	1 44 43.00	6.0
(*)+36° 40′.		
Oct. 26	1 44 47.56	9.0
ε Cassiopeæ+63° 1′.		
Nov. 13	1 45 4.18	5.0
O. Arg. S. 1127−16° 18′.		
Nov. 13	1 45 29.11	6.5

	h. m. s.	Mag.
Weisse 800−12° 58′.		
Dec. 2	1 45 30.27	7.7
(*)+36° 41′.		
Nov. 5	1 45 31.18	7.0
(*)+36° 41′.		
Nov. 5	1 45 31.29	7.5
Weisse 821 −2° 50.′		
Nov. 24	1 46 36.68	8.7
O. Arg. S. 1146−26° 29′.		
Oct. 28	1 46 50.51	8.2
Nov. 3	50.41	7.5
B. A. C. 576+36° 29′.		
Nov. 14	1 47 17.09	6.0
23	17.08	6.0
β Arietis+20° 10′.		
Dec. 1	1 47 27.78	
Weisse 843−1° 50′.		
Nov, 6	1 47 51.11	8.0
27	51.04	8.5
B. A. C. 579+36° 37′.		
Oct. 26	1 48 13.26	6.0
Nov. 5	13.30	5.5
13	13.22	5.5
B. A. C. 580+36° 36′.		
Oct. 26	1 48 26.14	5.5
Nov. 5	26.26	5.5
(*)−27° 9′.		
Nov. 24	1 49 42.26	8.5
Lacaille 569−36° 54′.		
Oct. 28	1 50 17.77	7.5
Nov. 3	17.58	6.5
Dec. 2	17.69	7.0
Weisse 880+9° 14′.		
Dec. 1	1 50 23.78	9.0
O. Arg. S. 1181--18 37′.		
Nov. 18	1 50 35.55	9.0
23	35.41	8.5
O. Arg. S. 1189−18′ 19		
Nov. 6	1 51 3.24	6.5
13	3.21	7.2
48 Cassiopeæ+70° 16′.		
Nov. 14	1 51 19.29	5.0
47 Cassiopeæ+76° 39′.		
Nov. 27	1 52 11.21	5.5
O. Arg. S. 1210−18° 43′.		
Oct. 26	1 52 51.82	8.3
28	51.81	

	h. m. s.	Mag.
B. A. C. 613−41° 49′.		
Nov. 24	1 53 2.01	7.0
Lalande 3702—27° 4′.		
Nov. 18	1 53 21.92	8.2
O. Arg. S. 1219−24° 5′.		
Nov. 23	1 53 22.30	7.0
B A. C. 619—41° 21′.		
Nov. 6	1 54 1.15	5.5
Weisse 973+12° 51′.		
Nov. 13	1 55 35.36	6.0
O. Arg. S. 1245−26° 17′.		
Oct. 26	1 55 37.39	8.3
Nov. 3	37.26	8.5
O. Arg. S. 1259−24° 32′.		
Oct. 28	1 56 51.51	6.0
Nov. 3	51.49	6.5
O. Arg. S. 1261−24° 32.		
Nov. 5	1 56 57.64	7.0
6	57.80	6.5
(*)+3° 27′.		
Dec. 1	1 55 14.77	9.0
2	14.85	9.0
(*)+9° 25′.		
Nov. 23	1 57 5.43	9.0
24	5.40	8.5
O. Arg. S. 1266−25° 46′.		
Nov. 18	1 57 26.82	8.0
Weisse 1038+8° 49′.		
Nov. 13	1 59 18.72	8.7
Weisse 1043−13° 56′.		
Nov. 30	1 59 39.55	7.3
58 Andromedæ+37° 13′.		
Oct. 26	2 0 38.69	5.5
28	39.10	5.0
Nov. 5	38.95	4.5
Weisse 1071+8° 14′.		
Nov. 6	2 0 44.40	7.0
Weisse 1080+8° 14′.		
Nov. 6	2 1 26.25	6.5
β Trianguli+34° 23′.		
Nov. 14	2 1 48.77	4.0
18	48.86	4.5
(*)+38° 58′.		
Nov. 30	2 2 5.31	8.0
Lalande 3979−18° 25′.		
Oct. 26	2 2 35.84	
Nov. 3	35.72	6.0
13	35.74	5.5
23	35.82	5.5

	h.	m.	s.	Mag.
(*)+52° 26′.				
Dec. 2 . .	2	2	41.03	9.0
15 ARIETIS+18° 52′.				
Nov. 27 . .	2	3	25.47	5.0
LACAILLE 660−38° 57′.				
Dec. 1 . .	2	5	14.13	7.5
WEISSE 51+3° 57′.				
Nov. 30 . .	2	5	13.93	8.0
ξ¹ CETI+8° 14′.				
Oct. 26 . .	2	6	6.68	
Nov. 3 . .			6.67	6.0
5 . .			6.69	
24 . .			6.70	
O. ARG. S. 1388−29° 35′.				
Nov. 23 . .	2	6	25.60	9.0
WEISSE 72+4° 8′.				
Oct. 28 . .	2	6	28.82	8.0
Nov. 13 . .			28.92	7.7
18 . .			28.95	7.8
WEISSE 81+7° 25′.				
Nov. 27 . .	2	7	18.31	
Dec. 2 . .			18.27	8.0
WEISSE (2) 147+38° 34′.				
Nov. 14 . .	2	7	24.02	6.0
O. ARG. S. 1404−29° 35′.				
Nov. 23 . .	2	7	37.46	
(*)−16° 36′.				
Oct. 28 . .	2	9	15.79	7.5
O. ARG. S. 1421−16° 36′.				
Nov. 3 . .	2	9	25.72	7.5
γ TRIANGULI+33° 14′.				
Nov. 5 . .	2	9	35.46	4.5
13 . .			35.51	4.5
B. A. C. 700+56° 31′.				
Nov. 24 . .	2	9	57.83	6.0
B. A. C. 701+56° 34′.				
Nov. 24 . .	2	10	7.06	6.0
LALANDE 4238+17° 51′.				
Nov. 6 . .	2	10	34.18	6.5
(*)+55° 18′.				
Nov. 18 . .	2	11	12.96	8.3
27 . .			13.18	8.0
WEISSE 155+12° 22′.				
Nov. 30 . .	2	11	49.09	7.0
B. A. C. 718+56° 38′.				
Nov. 14 . .	2	12	45.45	

	h.	m.	s.	Mag.
(*)−4° 44′.				
Nov. 13 . .	2	12	46.67	8.0
o CETI−3° 34′.				
Nov. 23 . .	2	12	46.73	5.0
WEISSE 182+13° 41′.				
Dec. 1 . .	2	13	9.62	7.7
WEISSE 189−5° 33′.				
Dec. 2 . .	2	13	13.08	9.0
i PERSEI+55° 14′.				
Oct. 28 . .	2	13	18.55	5.0
Nov. 3 . .			18.80	5.5
(*)+37° 6′.				
Nov. 6 . .	2	14	28.28	7.0
24 . .			28.23	7.2
69 CETI−0° 12′.				
Nov. 23 . .	2	15	17.05	5.0
LALANDE 4387+38° 45′.				
Nov. 5 . .	2	16	10.35	6.5
13 . .			10.21	7.0
O. ARG. S. 1522−18° 57′.				
Oct. 28 . .	2	16	50.45	6.0
Nov. 3 . .			50.37	6.0
B. A. C. 742−30° 28′.				
Nov. 24 . .	2	17	33.83	6.0
ξ ARIETIS+10° 2′.				
Nov. 14 . .	2	17	51.03	5.0
WEISSE 278+7° 57′.				
Nov. 5 . .	2	18	16.27	8.5
Dec. 1 . .			16.32	8.2
O. ARG. S. 1535−18° 46′.				
Nov. 3 . .	2	18	17.45	8.5
13 . .			17.51	8.3
(*)+61° 11′.				
Dec. 2 . .	2	18	19.88	8.5
WEISSE 288−5° 22′.				
Nov. 23 . .	2	18	36.10	
30 . .			36.15	8.2
B. A. C. 750+10° 3′.				
Nov. 14 . .	2	19	12.30	6.0
27 . .			12.35	6.5
O. ARG. S. 1551−15° 56′.				
Nov. 18 . .	2	19	49.57	5.5
24 . .			49.61	5.5
O. ARG. S. 1554−24° 26′.				
Oct. 28 . .	2	19	57.98	6.5
Nov. 26 . .			57.92	7.5
(*)+61° 15′.				
Dec. 2 . .	2	21	10.96	9.5

	h.	m.	s.	Mag.
(*)+36° 44′.				
Nov. 30 . .	2	21	10.08	6.5
Dec. 1 . .			9.96	7.0
(*)+38° 22′.				
Nov. 3 . .	2	22	10.10	7.0
5 . .			10.11	6.5
WEISSE 363+7° 55′.				
Nov. 13 . .	2	22	49.54	7.0
(*)+36° 39′.				
Nov. 24 . .	2	23	14.17	9.0
26 ARIETIS+19° 15′.				
Nov. 14 . .	2	23	21.17	5.5
WEISSE 373+13° 40′.				
Nov. 23 . .	2	23	28.99	9.0
WEISSE 379+12° 48′.				
Oct. 28 . .	2	23	42.73	8.0
Nov. 18 . .			42.84	8.2
WEISSE (2) 545+37° 32′.				
Nov. 30 . .	2	23	49.26	6.0
Dec. 1 . .			49.13	6.0
14 TRIANGULI+35° 34′.				
Nov. 27 . .	2	24	10.49	5.0
(*)+38° 57′.				
Nov. 5 . .	2	24	38.97	7.0
Dec. 2 . .			39.05	7.2
LALANDE 4667+36° 45′.				
Nov. 3 . .	2	24	56.40	6.0
6 . .			56.58	7.5
(*)−33° 10′.				
Nov. 13 . .	2	26	39.23	5.5
18 . .			39.26	8.3
WEISSE 443 (1st * S.)−6° 16′.				
Oct. 28 . .	2	27	38.69	
Nov. 23 . .			38.64	7.5
WEISSE 443 (2d * N.)−6° 16′.				
Oct. 28 . .	2	27	38.69	
Nov. 23 . .			38.64	7.5
WEISSE (2) 642+36° 41′.				
Oct. 5 . .	2	27	38.63	5.7
6 . .			38.82	5.5
LALANDE 4761+36° 29′.				
Nov. 14 . .	2	27	55.77	6.5
24 . .			55.80	7.0
B. A. C. 790 (1st *)−28° 49′.				
Dec. 1 . .	2	28	8.41	9.0
B. A. C. 790 (2d *)−28° 49′.				
Dec. 1 . .	2	28	9.12	7.0

	h.	m.	s.	Ma
LACAILLE 789−33° 42′.				
Nov. 3 . .	2	28	39.41	
Dec. 2 . .			39.56	
LALANDE 4784+38° 10′.				
Nov. 27 . .	2	28	50.64	
30 . .			50.67	
WEISSE 475−6° 14′.				
Nov. 13 . .	2	29	4.19	
18 . .			4.29	
ν ARIETIS+21° 23′.				
Nov. 6 . .	2	31	26.39	
23 . .			26.23	
LACAILLE 803−23° 34′.				
Nov. 18 . .	2	31	51.61	
24 . .			51.58	
B. A. C. 810+10° 4′.				
Nov. 14 . .	2	32	3.49	
(*)−34° 15′.				
Oct. 28 . .	2	32	26.08	
Nov. 3 . .			26.55	
δ CETI−0° 15′.				
Nov. 27 . .	2	32	49.19	
B. A. C. 817+5° 32′.				
Nov. 5 . .	2	33	24.40	
13 . .			24.42	
WEISSE 574−4° 17′.				
Dec. 1 . .	1	34	5.35	
WEISSE 580+5° 30′.				
Nov. 5 . .	2	34	17.04	
13 . .			16.95	
WEISSE 575+15° 4′.				
Nov. 30 . .	2	34	18.83	
Dec. 2 . .			18.97	
O. ARG. S. 1738−24° 42′.				
Nov. 18 . .	2	34	41.75	
24 . .			41.79	
O. ARG. S. 1758−28° 31′.				
Nov. 5 . .	2	36	17.71	
Dec. 1 . .			17.80	
γ CETI+2° 41′.				
Oct. 28 . .	2	36	34.00	
Nov. 6 . .			33.95	
14 . .			34.00	
23 . .			34.00	
27 . .			33.99	
30 . .			34.00	
Dec. 2 . .			34.05	
WEISSE 639+12° 36′.				
Nov. 24 . .	2	58	2.40	
LACAILLE 846−28° 28′.				
Nov. 3 . .	2	38	5.41	
5 . .			5.44	
18 . .			5.48	

	h. m. s.	Mag.
WEISSE (2) 915+35° 26′.		
Nov. 14	2 38 56.59	5.5
23	56.84	6.0
LALANDE 5112+37° 15′.		
Nov. 30	2 39 20.96	6.0
Dec. 2	20.89	6.0
LALANDE 5115+38° 58′.		
Nov. 13	2 39 34.94	8.5
27	35.12	8.0
Dec. 1	35.14	7.5
WEISSE (2) 972+24° 44′.		
Nov. 24	2 41 0.56	7.0
LALANDE 5181+36° 16′.		
Nov. 5	2 41 29.59	7.0
18	29.56	7.0
(*)−34° 19′.		
Nov. 13	2 43 9.06	6.0
Dec. 1	9.16	6.5
WEISSE 1038+15° 10′.		
Nov. 30	2 43 22.28	8.2
17 PERSEI+34° 31′.		
Nov. 23	2 43 30.78	
27	30.66	5.5
β FORNACIS−32° 58′.		
Nov. 24	2 43 38.97	4.5
LACAILLE 891−31° 22′.		
Nov. 5	2 43 55.34	7.0
20 PERSEI+37° 47′.		
Nov. 18	2 45 30.65	5.0
WEISSE 789+13° 42′.		
Nov. 13	2 46 48.33	7.0
24	48.26	7.5
(*)+25° 36′.		
Nov. 27	2 47 55.01	8.0
30	54.96	8.0
(*)−23° 41′.		
Nov. 5	2 47 56.00	7.7
Dec. 1	56.04	7.0
O. ARG. S. 1887−23° 29′.		
Nov. 5	2 48 25.75	8.0
18	25.73	8.5
WEISSE 831−0° 6′.		
Dec. 2	2 48 34.25	6.0
WEISSE 846−0° 1′.		
Dec. 2	2 49 16.31	8.0
WEISSE 853−0° 1′.		
Dec. 2	2 49 33.63	8.0

	h. m. s.	Mag.
(*)+38° 6′.		
Nov. 13	2 49 48.03	
24	48.15	7.0
WEISSE 872−0° 5′.		
Nov. 27	2 50 30.18	6.5
30	30.26	6.5
O. ARG. S. 1930−16° 22′.		
Nov. 5	2 51 56.19	7.3
18	56.09	7.2
(132) WASHINGTON+13° 45′.		
Nov. 30	2 52 40.60	9.5
LACAILLE 951−34° 43′.		
Nov. 13	2 53 44.46	6.0
Dec. 2	44.53	6.0
α CETI+3° 34′.		
Nov. 18	2 55 29.14	
Dec. 1	29.15	
WEISSE 970−7° 1′.		
Nov. 27	2 55 43.54	6.0
O. ARG. S. 1977−18° 43′.		
Nov. 5	2 56 4.22	7.0
24	4.06	6.0
O. ARG. S. 2000−18° 15′.		
Nov. 30	2 57 59.98	7.7
LALANDE 5682+38° 6′.		
Nov. 13	2 58 17.17	8.0
27	17.34	7.8
(*)−34° 54′.		
Dec. 2	2 59 0.58	8.0
(*)−26° 17′.		
Nov. 5	2 59 4.22	7.0
24	4.15	6.5
(*)−13° 46′.		
Nov. 13	3 0 57.36	8.0
27	57.33	8.0
LACAILLE 988−30° 48′.		
Dec. 2	3 2 31.23	6.5
LALANDE 5834+37° 35′.		
Nov. 24	3 3 5.74	7.0
27	5.70	7.0
WEISSE 20+11° 22′.		
Nov. 13	3 3 32.88	5.5
48 CEPHEI+77° 15′.		
Nov. 5	3 3 55.39	5.0
WEISSE 90−8° 9′.		
Nov. 24	3 6 11.91	8.0
27	11.93	8.0

	h. m. s.	Mag.
WEISSE 98+9° 58′.		
Dec. 1	3 6 57.22	8.0
2	57.49	7.5
ζ ARIETIS+20° 33′.		
Nov. 5	3 7 25.91	
13	25.92	
30	25.97	
WEISSE (2) 173+38° 45′.		
Nov. 24	3 9 20.58	5.0
LACAILLE 1026−28° 50′.		
Dec. 2	3 9 44.23	6.0
(*)+14° 37′.		
Nov. 13	3 10 28.54	9.0
Dec. 1	28.72	9.0
O. ARG. S. 2189 (1st * N.)−19° 2′.		
Nov. 24	3 12 44.99	6.5
Dec. 1	45.06	7.0
O. ARG. S. 2189 (2d * S.)−19° 2′.		
Nov. 24	3 12 45.43	8.0
Dec. 1	45.29	8.8
B. A. C. 1039−24° 36′.		
Nov. 13	3 13 54.75	5.5
Dec. 2	54.87	5.7
τ² ARIETIS+20° 16′.		
Nov. 27	3 15 16.59	5.5
B. A. C. 1054−26° 2′.		
Dec. 1	3 16 40.80	6.0
WEISSE 299+9° 14′.		
Nov. 24	3 18 11.29	7.8
(*)−18° 56′.		
Nov. 27	3 18 27.29	7.7
(*)−27° 44′.		
Dec. 1	3 20 6.17	6.0
66 ARIETIS+8° 16′.		
Nov. 24	3 20 39.75	7.0
(*)+5° 29′.		
Nov. 27	3 22 43.59	8.8
(*)+37° 2′.		
Nov. 24	3 23 31.71	7.5
WEISSE 456−9° 1′.		
Nov. 24	3 26 5.80	7.0
27	5.88	7.0
WEISSE (2) 528+38° 9′.		
Dec. 2	3 26 37.05	7.5

	h. m. s.	Mag.
B. A. C. 1105+42° 9′.		
Dec. 1	3 29 13.34	
(*)−9° 4′.		
Nov. 27	3 29 39.66	9.5
(*)+38° 42′.		
Dec. 2	3 31 48.76	8.0
(*) (1st * N.)+38° 42′.		
Nov. 24	3 32 16.14	9.0
(*) (2d * S.)+38° 42′.		
Nov. 24	3 32 16.66	8.0
B. A. C. 1123+37° 9′.		
Nov. 27	3 32 40.47	5.0
RUMKER 945+23° 58′.		
Nov. 24	3 35 59.64	
27	59.69	
16 TAURI+23° 53′.		
Dec. 1	3 37 4.71	5.5
4 PLEIADUM+23° 56′.		
Nov. 27	3 37 57.71	
4 PLEIADUM+23° 56′.		
Nov. 24	3 38 5.60	5.0
η TAURI+23° 42′.		
Dec. 1	3 39 45.53	
B. A. C. 1165+23° 53′.		
Dec. 2	3 39 45.61	6.5
(*)+23° 56′.		
Dec. 2	3 40 29.44	8.0
B. A. C. 1171+23° 57′.		
Dec. 2	3 40 45.80	6.0
33 PLEIADUM+23° 48′.		
Nov. 24	3 41 41.70	7.3
(*)−19° 8′.		
Nov. 24	3 44 24.38	6.5
27	24.17	7.0
LACAILLE 1252−31° 19′.		
Dec. 2	3 46 9.05	6.5
WEISSE 878+14° 46′.		
Nov. 27	3 46 29.83	7.5
Dec. 1	29.78	7.7
τ⁸ ERIDANI−25° 0′.		
Nov. 24	3 48 10.73	
(*)+19° 42′.		
Nov. 27	3 49 19.77	8.0
Dec. 1	19.73	7.7

Star	Date	h. m. s.	Mag.
O. Arg. S. 2663−26° 35′.	Dec. 2 . .	3 50 10.22	7.0
γ Eridani−13° 53′.	Nov. 24 . .	3 52 57.87	
	27 . .	57.88	
Lalande 7391+38° 42′.	Dec. 1 . .	3 53 48.70	
	2 . .	48.88	6.5
(*)−22° 38′.	Nov. 27 . .	3 55 34.44	7.0
Weisse 1092+12° 9′.	Dec. 1 . .	3 57 5.81	7.0
	2 . .	5.88	7.0
50 Persei+37° 42′.	Nov. 27 . .	3 59 56.97	5.0
	Dec. 1 . .	56.85	
ω¹ Tauri+19° 16′.	Dec. 2 . .	4 1 35.73	6.0
Weisse 24+14° 54′.	Dec. 1 . .	4 3 20.43	8.3
Rumker 1110+16° 57′.	Dec. 2 . .	4 5 4.19	6.0
Weisse 114−10° 43′.	Dec. 1 . .	4 7 18.82	7.0
A¹ Eridani−10° 34′.	Dec. 1 . .	4 8 12.57	5.0
Lalande 7994+37° 41′.	Dec. 1 . .	4 10 49.90	
	2 . .	49.95	7.2
(*)−23° 43′.	Dec. 2 . .	4 13 42.93	8.3
Weisse 286+14° 45′.	Dec. 1 . .	4 15 21.86	6.0
δ⁴ Tauri+17° 9′.	Dec. 1 . .	4 16 36.17	5.0
Lacaille 1433−35° 11′.	Dec. 2 . .	4 17 12.88	8.0
ε Tauri−18° 53′.	Dec. 1 . .	4 21 1.67	
O. Arg. S. 3108−23° 23′.	Dec. 2 . .	4 22 43.66	8.5
Weisse 618+15° 37′.	Dec. 2 . .	4 29 14.91	6.5
Weisse 646+7° 4′.	Dec. 2 . .	4 30 54.36	6.0
Weisse 705+7° 2′.	Dec. 2 . .	4 32 59.98	7.2

Star	Date	h. m. s.	Mag.
(*)−1° 41′.	Dec. 2 . .	4 36 35.01	9.0
1 Aurigæ+37° 16′.	Dec. 2 . .	4 41 9.85	5.5
2 Aurigæ+36° 30′.	Dec. 2 . .	4 43 55.91	5.0
B. A. C. 1513−34° 26′.	Dec. 2 . .	4 47 6.89	6.0
(*)−25° 14′.	Dec. 2 . .	4 54 36.76	6.8
11 Orionis+15° 13′.	Dec. 2 . .	4 57 8.54	
51 Cephei (S. P.)+87° 14′.	Sept. 28 . .	6 38 41.98	
60 Aurigæ+38° 36′.	Mar. 19 . .	6 44 18.45	7.0
61 Aurigæ+38° 40′.	Mar. 19 . .	6 45 2.35	
62 Aurigæ+38° 14′.	Mar. 19 . .	6 50 11.30	
Lalande 13601+35° 44′.	Mar. 19 . .	6 56 5.61	
Lacaille 2615−24° 45′.	Mar. 19 . .	7 1 30.49	
(*)+41° 48′.	Mar. 24 . .	7 9 3.23	8.3
Weisse 283−14° 15′.	Mar. 19 . .	7 10 9.05	8.0
67 Piazzi+68° 44′.	Mar. 24 . .	7 17 19.64	7.3
(*)−14° 57′.	Mar. 19 . .	7 17 41.87	7.8
(*)−14° 59′.	Mar. 19 . .	7 19 28.97	7.2
Lalande 14465+35° 5′.	Mar. 24 . .	7 20 54.50	8.3
Groombridge 1343+38° 23′.	Mar. 31 . .	7 28 21.57	7.0
Weisse (2) 789+41° 8′.	Mar. 24 . .	7 28 22.93	8.0
Weisse 791+41° 5′.	Mar. 24 . .	7 28 23.70	8.5

Star	Date	h. m. s.	Mag.
(*)+38° 36′.	Mar. 31 . .	7 28 59.94	8.0
Groombridge 1352+38° 38′.	Mar. 31 . .	7 31 29.36	7.0
α Canis Minoris+5° 33′.	Mar. 19 . .	7 32 29.78	
(*)−23° 56′.	Mar. 24 . .	7 33 0.75	8.0
β Geminorum+28° 22′.	Mar. 19 . .	7 37 21.50	
	31 . .	21.39	
Lacaille 2929−25° 12′.	Mar. 24 . .	7 38 14.07	6.8
Weisse 1243−11° 51′.	Mar. 19 . .	7 41 51.51	7.5
(*)+38° 11′.	Mar. 24 . .	7 43 4.92	8.5
(*)+0° 29′.	Mar. 31 . .	7 45 35.57	9.0
(*)+20° 32′.	Mar. 24 . .	7 46 33.81	9.0
Weisse 1371+13° 46′.	Mar. 19 . .	7 46 55.44	8.0
(*)+0° 30′.	Mar. 31 . .	7 46 57.95	9.0
Lacaille 3073−30° 2′.	Mar. 31 . .	7 51 16.89	7.0
B. A. C. 2651−30° 0′.	Mar. 31 . .	7 52 11.74	7.5
(*)−30° 0.	Mar. 24 . .	7 52 29.36	6.5
(*)−30° 2′.	Mar. 31 . .	7 54 29.11	6.0
O. Arg. S. 7798−30° 2′.	Mar. 24 . .	7 54 45.61	8.0
O. Arg. S. 7882−24° 15′.	Mar. 24 . .	7 57 48.49	8.5
O. Arg. S. 8632+60° 42′.	Mar. 19 . .	8 0 41.95	7.2
Lalande 15882+35° 52′.	Mar. 24 . .	8 1 43.48	
ρ Argus−23° 55′.	Apr. 11 . .	8 2 0.51	

Star	Date	h. m. s.	Mag.
Carrington 1186+80° 56′.	Mar. 19 . .	8 6 9.14	[illegible]
Lalande 16237+24° 34′.	Mar. 19 . .	8 11 24.43	[illegible]
	Apr. 11 . .	24.54	[illegible]
O. Arg. S. 8383−25° 2′.	Mar. 31 . .	8 14 9.05	
Lacaille 3266−29° 0′.	Mar. 31 . .	8 14 59.[illegible]	[illegible]
Weisse (2) 364+24° 20′.	Mar. 19 . .	8 17 12.68	[illegible]
	Apr. 11 . .	12.65	[illegible]
B. A. C. 2556−25° 56′.	Mar. 24 . .	8 17 20.43	[illegible]
Lacaille 3316−31° 47′.	Apr. 11 . .	8 20 49.64	[illegible]
Lacaille 3321−31° 46′.	Mar. 31 . .	8 21 52.35	
	Apr. 11 . .	52.52	[illegible]
O. Arg. S. 8654−25° 13′.	Mar. 19 . .	8 25 54.64	[illegible]
	31 . .	54.54	[illegible]
O. Arg. S. 8660−25° 8′.	Mar. 24 . .	8 26 6.48	[illegible]
	31 . .	6.59	[illegible]
Weisse (2) 629+30° 28′.	Apr. 11 . .	8 28 2.05	[illegible]
(*)+20° 2′.	Apr. 11 . .	8 29 59.97	
Weisse (2) 708+20° 13′.	Mar. 19 . .	8 30 8.49	[illegible]
(*)+20° 1′.	Mar. 31 . .	8 30 12.77	
	Apr. 11 . .	12.91	
(*)+20° 41′.	Mar. 24 . .	8 30 53.00	
(*)+20° 0′.	Apr. 11 . .	8 31 4.49	
(*)+20° 1′.	Mar. 31 . .	8 31 19.20	
	Apr. 11 . .	19.31	
Weisse (2) 756+20° 13′.	Mar. 19 . .	8 31 34.57	[illegible]
(*)+20° 35′.	Mar. 24 . .	8 31 35.91	
B. A. C. 2907+20° 1′.	Mar. 31 . .	8 31 41.20	

	h. m. s.	Mag.
(*)+20° 35′.		
Mar. 24 . .	8 32 13.65	
B. A. C. 2914+20° 2′.		
Mar. 31 . .	8 32 23.04	
Apr. 11 . .	23.08	
Weisse (2) 790+20° 3′.		
Mar. 31 . .	8 32 28.83	
Apr. 11 . .	28.95	
Weisse (2) 793+20° 2′.		
Mar. 31 . .	8 32 30.07	
Apr. 11 . .	30.20	
39 Cancri+20° 28′.		
Mar. 24 . .	8 32 37.54	
40 Cancri+20° 30′.		
Mar. 24 . .	8 32 42.68	
(*)+20° 0′.		
Mar. 31 . .	8 32 50.54	
Apr. 11 . .	50.61	
(*)+20° 12′.		
Mar. 19 . .	8 32 52.81	7.5
B. A. C. 2919+20° 8′.		
Mar. 24 . .	8 32 54.16	6.5
ε Cancri+20° 0′.		
Mar. 31 . .	8 32 59.39	
Apr. 11 . .	59.53	
B. A. C. 2925+20° 4′.		
Mar. 31 . .	8 33 38.69	
Apr. 11 . .	28.88	
Weisse (2) 829+20° 23′.		
Mar. 24 . .	8 33 45.38	
(*)+20° 1′.		
Mar. 31 . .	8 33 53.46	
(*)+20° 0′.		
Mar. 31 . .	8 33 59.61	
Apr. 11 . .	59.67	
B. A. C. 2931+20° 21′.		
Mar. 24 . .	8 34 21.94	6.5
σ^1 Cancri+31° 10′.		
Apr. 17 . .	8 37 22.51	6.0
ε Hydræ+6° 54′.		
Apr. 8 . .	8 39 53.39	
17 . .	53.42	
Lacaille 3509−26° 7′.		
Mar. 24 . .	8 40 35.88	7.0
Lacaille 3511−26° 8′.		
Mar. 24 . .	8 40 52.55	7.3
Weisse (2) 1016+22° 49′.		
Mar. 31 . .	8 41 20.75	8.3
Apr. 11 . .	20.75	8.5
Weisse (2) 1018+22° 44′.		
Mar. 31 . .	8 41 25.08	8.3
Apr. 11 . .	25.11	8.5
Weisse (2) 1098+22° 55′.		
Mar. 24 . .	8 45 2.62	8.5
Weisse (2) 1145+22° 20′.		
Mar. 31 . .	8 47 0.72	7.5
Apr. 11 . .	0.77	7.0
Weisse 1222+4° 40′.		
Mar. 24 . .	8 48 8.92	8.0
Weisse (2) 1181+22° 13′.		
Mar. 31 . .	8 48 28.63	8.2
Apr. 11 . .	28.75	
Lalande 17605+38° 47′.		
Apr. 8 . .	8 49 27.87	6.5
17 . .	27.86	6.3
Weisse (2) 1225+24° 29′.		
Mar. 24 . .	8 51 9.55	
Weisse (2) 1252+21° 41′.		
Mar. 19 . .	8 51 27.81	6.5
Weisse (2) 1291+22° 0′.		
Mar. 31 . .	8 53 15.79	8.0
Apr. 11 . .	15.88	8.0
68 Cancri+17° 38′.		
Apr. 8 . .	8 54 25.67	7.0
17 . .	25.66	6.5
Weisse (2) 1322+21° 31′.		
Mar. 19 . .	8 54 49.35	8.0
Weisse (2) 1324+38° 24′.		
Mar. 24 . .	8 55 11.81	7.0
Weisse 1439−13° 28′.		
Mar. 31 . .	8 56 58.49	7.5
Apr. 8 . .	58.46	6.5
(*)−31° 54′.		
Mar. 31 . .	8 59 6.85	7.5
Weisse (2) 1438+21° 3′.		
Mar. 19 . .	8 59 18.16	6.5
Apr. 8 . .	18.11	7.5
Weisse (2) 1446+21° 8′.		
Mar. 19 . .	8 59 39.76	8.0
Apr. 8 . .	39.69	8.7
(*)+21° 30′.		
Apr. 17 .	9 0 17.13	7.8
Weisse (2) 1475+21° 26′.		
Mar. 24 . .	9 0 29.51	8.0
Apr. 17 . .	29.44	8.3
κ Cancri+11° 12′.		
Mar. 31 . .	9 0 42.33	
Apr. 11 . .	42.29	
(*)−28° 26′.		
Apr. 8 . .	9 3 28.93	7.5
Lacaille 3704−25° 45′.		
Apr. 17 . .	9 4 47.05	7.0
Weisse (2) 79 (1st *)+20° 34′.		
Mar. 31 . .	9 5 28.27	8.8
Weisse (2) 79 (2d *)+20° 35′.		
Mar. 31 . .	9 5 29.20	9.0
e Ursæ Majoris+54° 34′.		
Apr. 8 . .	9 6 48.98	5.5
Lalande 18288+35° 55′.		
Apr. 8 . .	9 10 24.55	5.5
38 Lyncis (1st *)+37° 22′.		
Apr. 17 . .	9 10 44.62	7.5
38 Lyncis (2d *)		
Apr. 17 . .	9 10 44.84	5.0
Weisse (2) 207+19° 59′.		
Mar. 31 . .	9 11 22.96	8.5
α Lyncis+34° 57′.		
Apr. 8 . .	9 13 17.17	5.0
(*)+19° 58′.		
Mar. 31 . .	9 14 2.87	
(*)−28° 34′.		
Apr. 17 . .	9 14 48.64	7.0
α Hydræ−8° 5′.		
Mar. 31 . .	9 21 11.99	
Apr. 22 . .	11.93	
h Ursæ Minoris+63° 38′.		
Apr. 8 . .	9 21 15.14	4.5
17 . .	15.09	5.5
O. Arg. S. 9789−29° 33′.		
Mar. 31 . .	9 24 32.09	7.0
ζ^1 Antliæ (1st *)−31° 17′.		
Apr. 22 . .	9 25 11.68	7.0
ζ^1 Antliæ (2d *)−31° 17′.		
Apr. 22 . .	9 25 12.06	6.5
26 Ursæ Majoris+52° 38′		
Apr. 17 . .	9 25 54.23	6.0
ζ^2 Antliæ−31° 17′.		
Apr. 8 . .	9 25 58.63	
(*)−18° 27′.		
Mar. 31 . .	9 26 24.61	7.3
(*)+10° 13′.		
Apr. 17 . .	9 31 27.41	8.3
(*)+10° 14′.		
Mar. 31 . .	9 31 38.32	8.0
(*)+12° 39′.		
Apr. 8 . .	9 31 39.20	8.3
22 . .	39.20	8.3
(*)+12° 39′.		
Apr. 8 . .	9 31 48.59	8.0
22 . .	48.64	8.0
ψ Leonis+14° 38′.		
Apr. 8 . .	9 36 38.93	6.0
17 . .	38.99	6.5
Lalande 19134+9° 30′.		
Mar. 31 . .	9 38 22.03	8.0
ε Leonis+24′ 23′.		
Mar. 19 . .	9 38 28.14	
Weisse (2) 817+27° 46′.		
Apr. 22 . .	9 39 23.76	8.0
B. A. C. 3339+2° 24′.		
Apr. 8 . .	9 39 41.03	5.5
(*)+12° 2′.		
Apr. 17 . .	9 40 16.25	8.5
(*)+12° 9′.		
Mar. 31 . .	9 40 26.25	8.2
Weisse (2) 837+27° 44′.		
Apr. 22 . .	9 40 27.83	8.5
Lacaille 4030−37° 1′.		
Apr. 8 . .	9 43 1.83	7.0
22 . .	1.75	6.5
B. A. C. 3367−35° 38′.		
Mar. 31 . .	9 44 21.08	6.0
(*)−35° 37′.		
Mar. 31 . .	9 45 1.17	7.2
Lacaille 4046−30° 53′.		
Apr. 17 . .	9 45 21.50	7.3
Weisse (2) 978+38° 2′.		
Apr. 8 . .	9 47 0.14	8.0
(*)+8° 19′.		
Mar. 31 . .	9 48 40.52	
Weisse 1035+8° 20′.		
Mar. 31 . .	9 49 2.68	7.0
Apr. 17 . .	2.75	6.5
(*)−38° 55′.		
Apr. 22 . .	9 50 34.19	7.0
B. A. C. 5356+32° 11′.		
Mar. 31 . .	9 54 31.37	7.0
Apr. 8 . .	31.46	6.5

		h.	m.	s.	Mag.
(*)−34° 41'.	Apr. 17	9	54	36.36	8.0
Weisse (2) 1172+38° 41'.	Mar. 31	9	56	6.23	6.5
	Apr. 22			6.38	6.0
(*)+13° 30'.	Apr. 8	9	56	38.66	8.0
(*)+13° 28'.	Apr. 8	9	57	55.02	8.0
21 Leonis Minoris+35° 54'.	Mar. 31	9	59	45.12	5.5
	Apr. 17			45.25	5.5
Weisse (2) 1282+16° 56'.	Apr. 8	10	0	37.98	7.8
	22			37.91	8.0
Weisse (2) 49+36° 54'.	Apr. 8	10	4	20.23	7.5
Weisse 38+6° 50'.	Mar. 31	10	4	22.40	8.0
	Apr. 22			22.44	7.0
Weisse 74+6° 10'.	Mar. 31	10	6	21.75	8.5
	Apr. 17			21.86	8.3
(*)−30° 10'.	Apr. 22	10	8	49.88	7.3
Weisse (2) 179+30° 15'.	Mar. 31	10	9	43.67	8.3
	Apr. 8			43.86	8.0
γ¹ Leonis+20° 30'.	Apr. 8	10	12	48.18	
	17			48.18	
Lacaille 4250−32° 26'.	Mar. 31	10	14	22.86	6.8
	Apr. 22			22.80	7.0
Lacaille 4267−23° 39'.	Mar. 31	10	16	52.23	6.0
	Apr. 22			52.16	
Lalande 20169+36° 53'	Apr. 17	10	17	57.77	6.7
	May 8			57.77	
β Leonis Minoris+37° 24'.	Mar. 31	10	20	21.49	5.5
	Apr. 22			21.57	5.5
O. Arg. N. 10874+56° 39'.	Apr. 17	10	22	5.09	8.5
36 Ursæ Majoris+56° 40'.	Apr. 17	10	22	17.51	5.8
	May 8			17.63	6.0
(*)+37° 43'.	Apr. 22	10	23	3.30	7.3
O. Arg. S. 10666−29° 51'.	Mar. 31	10	23	20.28	8.5
δ Antliæ−29° 55'.	Apr. 8	10	23	36.66	5.0
37 Ursæ Majoris+57° 46'.	Apr. 17	10	26	46.29	6.0
	May 8			46.17	
Weisse 456−3° 35'.	Apr. 8	10	27	1.44	8.0
(*)−3° 56'.	Apr. 22	10	29	8.25	8.6
(*)−3° 53'.	Apr. 22	10	29	11.01	8.2
Weisse 517−4° 7'.	Mar. 31	10	29	55.35	9.0
Weisse (2) 711+34° 3'.	Mar. 31	10	35	51.93	8.0
	Apr. 22			52.07	8.0
O. Arg. S. 10840−30° 10'.	Apr. 17	10	37	33.30	7.0
	22			33.31	7.0
41 Ursæ Majoris+58° 6'.	May 8	10	38	12.47	6.0
Weisse 703+7° 4'.	Mar. 31	10	40	33.39	7.0
(*)−29° 57'.	Apr. 17	10	41	20.49	9.0
	22			20.42	8.5
l Leonis+11° 14'.	Mar. 31	10	42	25.32	
O. Arg. S. 10907−29° 52'.	May 8	10	43	5.32	7.5
O. Arg. S. 10912−29° 47'.	May 8	10	43	16.26	8.0
O. Arg. S. 10952−29° 21'.	Mar. 31	10	47	5.68	7.0
(*)−29° 23'.	Apr. 22	10	47	20.75	7.0
(*)−29° 29'.	Apr. 22	10	47	47.11	8.5
Weisse (2) 1029+38° 42'.	Mar. 31	10	52	12.76	8.5
	Apr. 22			12.98	8.2
Lalande 21081+44° 11'.	Apr. 17	10	52	17.15	6.5
Lalande 21185+36° 56'.	Mar. 31	10	56	13.42	6.5
	Apr. 22			13.52	7.5
	May 8			13.52	7.5
Lalande 21258+44° 14'.	Mar. 31	10	59	1.29	8.2
	Apr. 17			1.48	7.8
Weisse (2) 1185+37° 27'.	May 8	10	59	50.62	7.5
Weisse (2) 1196+37° 30'.	Apr. 22	11	0	25.62	6.6
	May 8			25.70	7.0
(*)−29° 2'.	Apr. 17	11	2	23.45	7.0
Lacaille 4624 (1st *)−28° 52'	Apr. 22	11	3	41.27	
Lacaille 4624 (2d *.)	Mar. 31	11	3	42.27	6.5
	Apr. 22			42.12	7.0
B. A. C. 3923−29° 5'.	Apr. 17	11	3	42.33	6.3
	May 8			42.18	6.7
O. Arg. S. 11213−28° 51'.	Apr. 22	11	4	28.41	8.3
δ Leonis+21° 14'.	Mar. 19	11	7	11.52	
	Apr. 11			11.46	
Weisse (2) 118+38° 18'.	Mar. 31	11	7	54.88	6.8
	Apr. 22			55.00	7.0
Rumker 3497+61° 0'.	Apr. 11	11	9	45.37	7.0
δ Crateris−14° 4'.	Apr. 17	11	12	50.55	
	22			50.54	
	May 21			50.58	
(*)−38° 23'.	Apr. 22	11	16	6.91	7.0
Weisse (2) 293+37° 58'.	Apr. 11	11	16	51.50	6.5
	May 8			51.34	6.0
Weisse (2) 312+31° 43'.	Apr. 17	11	17	45.86	8.5
Weisse (2) 416+38° 41'.	Mar. 31	11	23	16.16	6.0
	Apr. 11			16.42	7.0
B. A. C. 3920−5° 44'.	May 21	11	25	19.97	[illegible]
Lalande 21947+37° 35'.	Mar. 31	11	27	1.01	[illegible]
	Apr. 11			1.31	[illegible]
2 Draconis+70° 6'.	Apr. 17	11	28	23.99	[illegible]
	May 8			23.93	[illegible]
υ Leonis−0° 5'.	Apr. 8	11	30	17.65	
59 Ursæ Majoris+44° 21'	May 21	11	31	24.49	[illegible]
Lalande 22059+34° 22'.	Mar. 31	11	31	40.19	[illegible]
	Apr. 11			40.31	[illegible]
Weisse (2) 608+17° 49'.	Apr. 17	11	32	7.58	[illegible]
	22			7.54	[illegible]
61 Ursæ Majoris+34° 58'.	Mar. 31	11	34	11.98	[illegible]
	Apr. 11			12.03	[illegible]
(*)+38° 40'.	Mar. 31	11	37	59.61	[illegible]
	Apr. 11			59.98	[illegible]
Rumker 3727+14° 59'.	May 21	11	38	28.58	
(*)−24° 43'.	Mar. 31	11	39	57.77	[illegible]
	Apr. 11			58.07	[illegible]
A¹ Virginis+8° 58'.	May 21	11	41	14.12	
β Leonis+15° 19'.	Apr. 22	11	42	25.72	
Lalande 22357+37° 35'.	Mar. 31	11	44	20.19	[illegible]
	Apr. 11			20.36	[illegible]
Weisse 758−7° 15'.	May 21	11	44	32.51	
B. A. C. 4010+38° 40'.	May 1	11	45	28.17	[illegible]
B. A. C. 4016−34° 19'.	Mar. 31	11	46	53.27	[illegible]
	Apr. 11			53.28	[illegible]
B. A. C. 4023−37° 1'.	Apr. 22	11	47	54.74	[illegible]
	May 21			54.84	
Lalande 22450+37° 29'.	May 1	11	48	30.64	[illegible]
	8			30.54	[illegible]

Star	Date	h.	m.	s.	Mag.
Lalande 22548+33° 53′.	Mar. 31	11	52	35.80	6.0
	Apr. 11			36.06	
Weisse (2) 1035+37° 27′.	Apr. 17	11	53	28.74	7.2
	22			28.72	7.5
Weisse (2) 1037+37° 27′.	Apr. 17	11	53	35.91	8.0
	22			35.94	8.2
(*)−15° 7′.	May 8	11	54	1.88	
	21			1.84	8.7
Weisse (2) 1067+36° 47′.	Mar. 31	11	54	59.82	6.0
	May 1			60.09	5.7
(*)−33° 29′.	Apr. 11	11	58	31.59	8.0
	17			31.56	7.0
o Virginis+9° 28′.	May 1	11	58	35.21	
Weisse (2) 1190+37° 46′.	Mar. 31	12	0	44.85	8.5
	Apr. 22			45.04	
B. A. C. 4081+14° 15′.	Apr. 17	12	0	57.42	
	May 21			57.49	7.0
O. Arg. N. 12397+75° 26′.	May 1	12	3	26.67	7.0
O. Arg. S. 11982−25° 12′.	May 21	12	5	16.31	6.5
Lacaille 5066−33° 4′.	Mar. 31	12	6	52.12	
Lacaille 5073−33° 3′.	Apr. 22	12	7	33.50	
Lalande 22934 (1st *)+33° 31′.	Apr. 17	12	7	33.52	7.0
Lalande 22934 (2d *)+33° 31′.	Apr. 17	12	7	35.62	8.2
B. A. C. 4128+33° 49′.	Mar. 31	12	9	57.68	5.0
	May 21			57.73	5.5
Weisse 149+8° 23′.	Apr. 22	12	11	5.42	8.3
(*)+23° 51′.	May 21	12	12	1.80	7.5
η Virginis+0° 4′.	Apr. 11	12	13	15.37	
	17			15.35	
(*)+6° 28′.	Mar. 31	12	13	17.87	6.5
Weisse (2) 268+38° 38′.	Apr. 21	12	13	44.81	7.5
B. A. C. 4193+84° 9′.	May 1	12	19	46.35	6.0
	11			46.43	
Lalande 23269+37° 51′.	Mar. 31	12	19	57.85	7.5
	Apr. 22			57.99	7.8
O. Arg. S. 12165−26° 58′.	Apr. 17	12	20	28.62	8.0
(*)−35° 16′.	Apr. 22	12	22	21.55	8.3
(*)−37° 37′.	Apr. 17	12	23	5.54	8.3
	May 21			5.47	9.0
Weisse (2) 500+24° 30′.	Mar. 31	12	24	33.63	7.0
	May 1			33.86	6.5
Weisse (2) 556+25° 1′.	May 11	12	27	5.43	6.0
	21			5.28	6.7
β Corvi−22° 40′.	Mar. 31	12	27	33.84	
	May 30			33.76	
Weisse 452+6° 41′.	Apr. 22	12	27	55.87	8.0
(*)+6° 43′.	Apr. 22	12	27	56.11	8.7
Weisse (2) 581+21° 37′.	Apr. 17	12	28	2.09	7.5
	May 1			2.08	
O. Arg. S. 12288−27° 41′.	Apr. 8	12	30	38.54	7.5
	May 11			38.52	8.0
Weisse 510+2° 42′.	May 21	12	31	34.68	7.7
Weisse 516 (1st *)−4° 36′.	Apr. 17	12	31	59.65	8.0
	22			59.75	8.0
Weisse 516, (2d *).	Apr. 17	12	32	0.29	9.0
	22			0.21	8.5
Lalande 23653+36° 40′.	May 1	12	32	57.04	6.0
	30			57.13	7.5
Lalande 23654+34° 51′.	Apr. 8	12	32	59.65	7.5
Lalande 23666+34° 54′.	Apr. 8	12	33	48.89	6.0
Weisse 579−4° 53′.	Apr. 17	12	35	33.04	8.5
	Apr. 22			33.00	8.0
(*)−4° 43′.	Apr. 22	12	35	47.58	8.5
Weisse 585−4° 45′.	Apr. 22	12	35	54.15	8.0
	May 11			54.13	7.0
Lalande 23711+34° 25′.	May 21	12	36	0.38	7.5
	30			0.41	7.5
B. A. C. 4282+44° 40′.	May 21	12	38	18.57	7.0
d^2 Virginis+8° 23′.	May 11	12	39	3.00	6.0
	30			2.90	6.5
Weisse 685+14° 9′.	Apr. 8	12	41	19.84	7.5
	17			19.75	7.5
28 Comæ+14° 15′.	Apr. 8	12	41	43.69	5.5
	17			43.67	5.8
Rumker 4137−8° 30′.	May 11	12	42	15.71	7.0
Lalande 23896+37° 3′.	Apr. 22	12	42	16.00	7.0
	May 21			15.91	7.0
Lalande 23919+36° 2′.	May 30	12	43	1.63	7.8
B. A. C. 4311+38° 14′.	Apr. 22	12	43	59.70	6.0
(*)+0° 54′.	May 1	12	45	12.22	
(*)−38° 36′.	May 21	12	45	37.21	8.5
(*)+0° 54′.	Apr. 17	12	45	48.31	9.0
Lacaille 5311−38° 40′.	May 21	12	46	3.31	7.5
Weisse 786+0° 49′.	Apr. 8	12	46	56.90	7.7
	May 30			56.83	9.0
Santini 879+0° 46′.	Apr. 8	12	48	59.44	5.5
	17			59.44	6.8
	May 30			59.41	7.0
Weisse 820−2° 50′.	Apr. 22	12	49	0.30	7.0
	May 11			0.26	7.5
α Canum Venaticorum+39° 2′.	May 1	12	49	56.61	
(*)−14° 17′.	May 11	12	51	14.71	6.5
Weisse (2) 1019+37° 26′.	Apr. 17	12	51	42.64	8.3
	May 21			42.55	8.0
(*)−35° 27′.	Mar. 31	12	52	52.81	7.0
	May 30			52.81	8.5
Lacaille 5363−38° 55′.	Apr. 17	12	54	32.80	7.0
	22			32.93	7.0
ε Virginis+11° 40′.	May 11	12	55	42.32	4.5
	June 12			42.43	5.5
Lacaille 5371−33° 35′.	May 1	12	55	52.48	8.0
	21			52.47	7.5
Lalande 24271+38° 4′.	Mar. 31	12	56	16.86	7.5
	Apr. 8			17.11	
B. A. C. 4369−33° 32′.	May 1	12	56	36.17	7.0
	30			36.05	
48 Virginis−2° 58′.	June 1	12	57	12.56	
14 Canum Venaticorum+36° 31′.	Mar. 31	12	59	39.36	
	Apr. 8			39.68	
B. A. C. 4383−35° 9′.	Apr. 17	12	59	40.48	5.5
	22			40.45	5.5
(*)+12° 46′.	May 30	13	0	12.06	9.0
O. Arg. S. 12662−27° 30′.	May 11	13	1	6.06	7.0
Lacaille 5407−35° 31′.	May 1	13	1	8.51	6.5
Weisse 1054+12° 46′.	May 30	13	1	48.52	9.0
Weisse 16−4° 50′.	June 1	13	3	13.11	

Star	Date	h.	m.	s.	Mag.
θ VIRGINIS—4° 50′.	Mar. 31	13	3	13.21	
	Apr. 8			13.23	
	May 11			13.26	
	21			13.26	
	June 12			13.29	
B. A. C. 4407+38° 7′.	Apr. 17	13	3	38.79	
	22			38.86	5.5
(*)—11° 14′.	May 1	13	4	28.58	8.0
WEISSE 44+12° 54′.	May 30	13	4	48.22	8.8
LALANDE 24579+37° 35′.	May 1	13	7	36.43	
	21			36.29	6.0
LACAILLE 5457—35° 41′.	June 1	13	7	51.58	
(*)+33° 11′.	June 12	13	11	15.04	8.0
O. ARG. S. 12811—21° 42′.	June 12	13	14	0.19	
(*)+12° 56′.	Apr. 22	13	14	6.13	8.3
(*)+12° 59′.	Apr. 22	13	14	10.10	9.0
LACAILLE 5503—35° 23′.	Apr. 17	13	14	29.15	7.3
(*)+38° 30′.	May 1	13	15	17.41	8.3
WEISSE (2) 274+38° 32′.	May 1	13	15	16.90	7.0
	21			16.79	7.0
65 VIRGINIS—4° 14′.	June 1	13	16	34.78	6.0
B. A. C. 4479+37° 43′.	June 12	13	18	0.26	6.5
α VIRGINIS—10° 28′.	Apr. 8	13	18	20.82	
	June 22			20.86	
ζ URSÆ MAJORIS+55° 36′.	Apr. 17	13	18	41.34	4.0
	22			41.34	
B. A. C. 4486+55° 40′.	Apr. 17	13	18	42.23	6.5
	22			42.29	
g URSÆ MAJORIS+55° 40′.	May 1	13	20	0.83	5.5
	11			1.23	5.0

Star	Date	h.	m.	s.	Mag.
WEISSE 324+0° 22′.	June 12	13	21	23.61	9.0
WEISSE 334+7° 23′.	May 21	13	21	56.83	8.8
	June 1			56.85	8.5
WEISSE (2) 437+36° 59′.	Apr. 17	13	23	13.58	8.3
LALANDE 24979—24° 59′.	Jnne 12	13	23	57.10	8.0
LAMONT 4065—1° 36′.	May 1	13	24	1.64	8.5
	11			1.69	8.3
(*)+8° 45′.	May 21	13	24	14.32	9.3
	June 1			14.37	9.0
LAMONT 4068—1° 35′.	May 1	13	24	28.86	
	11			28.80	8.0
LAMONT 4071—1° 39′.	May 11	13	25	5.46	7.0
ζ VIRGINIS+0° 5′.	Apr. 17	13	28	4.21	
	22			4.23	
	June 15			4.26	
(*)—35 54′.	May 1	13	30	1.64	8.0
	21			1.73	7.5
LACAILLE 5621—32° 27′.	June 15	13	31	24.01	6.0
25 CANUM VENATICORUM+36 57′.	May 11	13	31	40.98	
	June 1			41.05	6.0
LACAILLE 5625—39° 23′.	June 12	13	32	10.80	
WEISSE 583—6′ 54′.	May 1	13	34	59.21	7.5
	21			59.21	7.5
	June 1			59.17	8.0
(*)—35° 54′.	June 12	13	36	41.64	9.0
(*)+35° 38.	May 11	13	36	56.59	6.0
WEISSE 651—11° 43′.	June 1	13	38	41.82	7.5
(*)+37° 15′.	May 1	13	38	48.54	7.0
	21			48.65	9.0
WEISSE 657—11° 45′.	June 1	13	39	0.78	6.0

Star	Date	h.	m.	s.	Mag.
B. A. C. 4586—35° 36′.	June 12	13	39	22.16	5.5
	15			22.05	6.0
(*)+37° 18′	May 1	13	39	22.48	8.5
WEISSE 676—7° 51′.	May 11	13	40	31.01	8.5
	June 5			31.08	8.0
WEISSE 682—7° 48.	June 5	13	40	42.74	8.8
(*)—35° 57′.	June 12	13	42	5.88	8.5
B. A. C. 4614+78° 43′.	June 22	13	42	8.44	
WEISSE (2) 894+22° 59′.	May 1	13	42	56.59	9.0
B. A. C. 4613—20° 12′.	June 15	13	43	5.94	7.2
e BOOTIS+21 55′.	June 1	13	43	34.02	6.0
	26			33.89	
(*)+37 20′.	June 5	13	44	5.25	7.0
LALANDE 25494+21° 54′.	June 1	13	44	12.49	7.0
PIAZZI 220+21° 55′.	June 1	13	44	15.42	6.5
WEISSE (2) 976+38 22′.	May 11	13	45	50.13	7.5
B. A. C. 4632+35° 5′.	June 12	13	46	3.38	6.0
	15			3.28	5.8
(*)+66 37′.	May 21	13	46	48.90	7.5
WEISSE 797+10′ 53′.	June 5	13	47	32.90	8.0
WEISSE 798+10′ 54′.	June 5	13	47	44.74	8.6
η BOOTIS+19° 9′.	May 1	13	48	29.74	
	11			29.72	
	30			29.72	
	June 26			29.71	
(*)—22′ 23′.	June 15	13	48	45.15	7.5
LALANDE 25625+37° 43′.	June 1	13	49	0.96	7.0
	12			1.01	7.5

Star	Date	h.	m.	s.	Mag.
LALANDE 25635—22° 22	June 22	13	50	13.84	[illegible]
(*)+11° 57.	June 5	13	51	22.57	[illegible]
(*)+23° 30.	May 11	13	52	34.34	[illegible]
	21			34.44	
WEISSE (2) 1159+23° 30.	May 11	13	53	17.46	
(*)+23° 56′.	June 1	13	53	52.97	[illegible]
	22			52.95	[illegible]
(*)—38° 48′.	June 12	13	53	56.90	[illegible]
(*)—36′ 51′.	June 15	13	54	23.46	[illegible]
(*)+75° 23′.	May 30	13	54	46.30	[illegible]
(*)—36° 51′.	June 15	13	54	55.29	
11 BOOTIS+28° 1.	May 1	13	55	16.71	
	June 5			16.93	[illegible]
(*)+75° 23′.	May 30	13	55	33.73	[illegible]
(*)—37° 39′.	May 21	13	57	7.90	[illegible]
LALANDE 25860+35° 3.	May 1	13	58	55.29	[illegible]
	11			55.17	[illegible]
	30			55.40	[illegible]
(*)+14° 51′.	June 5	13	59	26.75	[illegible]
(*)—14′ 53′.	June 5	13	59	36.19	[illegible]
WEISSE (2) 1309+24 1.	May 21	14	0	17.91	[illegible]
	June 1			17.97	[illegible]
WEISSE (2) 1314+35 0.	May 30	14	0	18.05	[illegible]
(*)—26° 5′.	June 15	14	1	8.00	[illegible]
WEISSE (2) 21+37° 22.	May 1	14	2	40.22	[illegible]
	11			40.34	[illegible]
(*)—26′ 7′.	June 15	14	2	47.81	[illegible]
LALANDE 26013+37° 56′.	May 21	14	4	15.91	[illegible]
	30			16.02	[illegible]

	h.	m.	s.	Mag.
B. A. C. 4714+32° 54′.				
lay 1	14	5	34.84	6.0
11			34.81	6.0
O. Arg. S. 13471+15° 26′.				
une 1	14	5	52.91	8.5
5			53.00	8.3
(*)−36° 57′.				
une 12	14	7	57.17	9.5
O. Arg. S. 13501−15° 29′.				
lay 11	14	8	44.20	7.3
21			44.23	7.3
Lacaille 5877−34° 24′.				
une 15	14	8	57.32	7.5
26			57.37	8.0
4 Ursæ Minoris+78° 9′.				
lay 1	14	9	24.02	
une 1			24.04	5.5
O. Arg. N. 14403+56° 55′.				
lay 30	14	9	31.32	8.3
(*)+35° 11′.				
une 5	14	10	16.36	7.0
22			16.30	7.0
Weisse (2) 196 (N. *)+20° 43′.				
une 26	14	10	30.20	6.5
Weisse 179−8° 49′.				
lay 11	14	11	37.42	8.7
une 12			37.34	8.0
Weisse (2) 245+40° 58′.				
une 15	14	12	6.46	7.5
B. A. C. 4752+51° 54′.				
une 1	14	12	43.94	6.0
18 Bootis+13° 37′.				
uly 1	14	12	58.90	
O. Arg. S. 13544−23° 54′.				
une 22	14	13	12.64	6.5
Weisse 236−4° 37′.				
lay 1	14	14	31.49	8.0
11			31.46	7.5
(*)−35° 23′.				
ne 12	14	15	12.56	9.0
15			12.54	8.3
Weisse 257+4° 43′.				
lay 30	14	15	20.26	9.0
(*)−26° 39′.				
ne 22	14	16	8.66	8.2
Lacaille 5925−36° 51′.				
ne 26	14	17	5.74	6.5

	h.	m.	s.	Mag.
B. A. C. 4769+6° 25′.				
June 1	14	17	33.43	7.5
B. A. C. 4773+6° 25′.				
June 1	14	17	43.37	6.0
B. A. C. 4778+37° 47′.				
May 1	14	18	5.65	6.5
11			5.48	6.0
(*)−26° 9′.				
June 15	14	18	16.79	8.3
O. Arg. S. 13626−27° 19′.				
June 5	14	19	47.46	8.5
22			47.18	8.0
O. Arg. S. 13629−27° 19′.				
June 5	14	19	56.14	8.0
22			55.91	7.0
(*)−26° 17′.				
June 12	14	20	49.15	8.5
O. Arg. S. 13647−27° 18′.				
June 22	14	21	1.22	6.5
(*)+38° 8′.				
June 1	14	22	50.22	8.0
26			50.10	7.3
B. A. C. 4797+36° 46′.				
May 1	14	22	53.58	6.0
11			53.33	6.0
Lacaille 5952−39° 48′.				
June 15	14	23	4.51	6.2
(*)−25° 35′.				
June 5	14	23	23.84	8.3
O. Arg. S. 13683−23° 59′.				
June 22	14	23	26.18	8.0
(*)+38° 8′.				
May 30	14	22	50.19	7.0
O. Arg. S. 13694−23° 58′.				
June 22	14	24	20.14	6.5
Lalande 26560+30° 49′.				
May 30	14	26	41.36	7.0
June 1			41.55	8.0
(*)−30° 9′.				
June 5	14	26	43.23	9.5
Lacaille 5991−34° 54′.				
June 15	14	26	50.31	7.0
(*)+50° 54′.				
June 24	14	27	24.94	8.5
Lacaille 5999−39° 2′.				
June 17	14	28	17.31	6.0

	h.	m.	s.	Mag.
(*)+37° 42′.				
June 12	14	28	55.86	7.0
22			55.77	7.0
(*)−34° 14′.				
June 26	14	28	57.77	7.7
O. Arg. N. 14695+76° 20′.				
May 1	14	29	25.21	
11			25.01	7.5
(*)−27° 42′.				
June 5	14	29	30.16	9.0
Lacaille 6015−38° 13′.				
June 15	14	30	13.04	6.0
Lacaille 6027−32° 49′.				
May 21	14	31	25.83	7.0
June 26			25.73	7.0
Lacaille 6038−35° 35′.				
May 30	14	33	2.56	6.0
June 24			2.57	
Lacaille 6051−29° 9′.				
June 12	14	34	4.21	6.5
26			4.13	6.6
(*)−32° 14′.				
June 5	14	34	9.72	8.0
17			9.75	7.5
22			9.49	7.3
(*)−32° 11′.				
June 5	14	34	24.47	7.0
Lacaille 6064−29° 38′.				
May 30	14	35	44.16	7.6
June 24			44.14	8.2
Weisse (2) 752+38° 41′.				
May 1	14	35	47.44	7.0
11			47.25	7.0
Weisse (2) 788+37° 18′.				
May 11	14	37	23.96	7.0
June 12			24.01	7.0
(*)−37° 26′.				
June 15	14	37	25.22	7.5
(*)+27° 3′.				
June 17	14	38	44.99	9.2
(*)+27° 3′.				
May 30	14	(39)	4.86	9.0
ε Bootis+27° 38′.				
May 1	14	39	18.65	
July 1			18.57	
Lalande 26923+33° 20′.				
May 21	14	39	47.34	6.0
June 12			47.50	7.0

	h.	m.	s.	Mag.
(*)−37° 6′.				
June 5	14	40	46.92	8.0
15			46.79	8.3
(*)+37° 26′.				
May 11	14	40	48.22	7.0
June 22			48.42	7.5
O. Arg. S. 13951−23° 44′.				
June 17	14	41	45.51	7.7
26			45.42	8.3
July 1			45.57	8.3
(*)−37° 6′.				
June 15	14	41	46.79	
O. Arg. S. 13953−23° 43′.				
June 17	14	41	48.35	6.2
26			48.20	6.0
July 1			48.30	7.0
Lacaille 6109−31° 53′.				
June 24	14	41	56.57	8.0
O. Arg. S. 13958−23° 41′.				
June 17	14	42	25.24	7.5
26			25.08	8.0
Lalande 27023+38° 12′.				
May 21	14	42	54.84	7.0
June 12			54.99	7.5
a^2 Libræ−15° 29′.				
May 1	14	43	41.34	
11			41.34	
June 5			41.45	
B. A. C. 4897+38° 21′.				
June 22	14	44	0.44	6.0
(*)−23° 45′.				
May 30	14	44	18.09	6.5
June 15			18.03	7.8
(*)+37° 7′.				
June 24	14	44	38.36	8.0
B. A. C. 4906+37° 47′.				
June 12	14	45	21.77	6.0
O. Arg. S. 14039−27° 44′.				
June 26	14	46	38.77	6.0
July 1			38.98	6.7
O. Arg. S. 14042−27° 43′.				
June 26	14	46	53.04	8.5
O. Arg. S. 14046−29° 1′.				
May 11	14	47	32.75	9.0
21			32.77	7.5
O. Arg. S. 14065−26° 17′.				
June 15	14	48	46.85	9.5
17			46.93	9.5

	h.	m.	s.	Mag.
Weisse 906+1° 15′.				
June 5	14	48	55.66	8.3
12			55.52	8.3
B. A. C. 4923 (duplex) (1st *)−20° 48′.				
July 1	14	49	51.48	8.3
B. A. C. 4923 (duplex) (2d *)−20° 48′.				
July 1	14	49	52.56	6.5
(*)+38° 29′.				
May 21	14	50	38.49	7.6
June 22			38.35	7.5
Lacaille 6178−37° 2′.				
June 26	14	51	1.71	6.8
(*)+49° 40′.				
June 12	14	51	8.57	8.0
O. Arg. N. 14971+49° 40′.				
June 5	14	51	11.21	8.5
O. Arg. N. 14975+49° 37′.				
June 5	14	51	36.23	8.8
12			36.28	8.5
Weisse (2) 1130+40° 45′.				
July 1	14	52	30.36	7.5
Weisse 1139+40° 43′.				
July 1	14	52	45.30	8.5
Lalande 27336+37° 44′.				
May 11	14	53	43.33	8.5
21			43.26	8.5
Lalande 27340+37° 45′.				
May 11	14	53	50.69	9.0
21			50.54	9.0
(*)−32° 0′.				
June 15	14	54	4.41	9.0
22			4.26	8.6
B. A. C. 4941−2° 15′.				
June 26	14	54	34.70	6.0
(*)−27° 34′.				
May 30	14	56	17.35	7.0
June 17			17.33	7.0
(*)−37° 11′.				
June 5	14	56	44.60	7.7
15			44.45	8.0
Weisse 1048−10° 27′.				
June 22	14	56	51.04	7.0
24			51.00	7.0
Weisse 1063−10° 28′.				
June 24	14	57	14.11	
Lacaille 6218−29° 23′.				
July 1	14	57	28.31	6.7

	h.	m.	s.	Mag.
(*)−26° 22′.				
June 26	14	57	41.75	8.2
(*)−31° 57′.				
June 17	14	58	49.83	7.2
B. A. C. 4982+83° 2′.				
June 12	14	59	17.02	
O. Arg. S. 14257−29° 1′.				
May 30	14	59	25.81	7.5
Lacaille 6237−37° 6′.				
June 5	15	0	26.60	7.3
Lacaille 6239−38° 3′.				
June 15	15	0	44.04	7.0
22			44.00	6.5
O. Arg. S. 14278−28° 52′.				
May 30	15	0	53.52	7.5
(*)−38° 2′.				
June 22	15	0	53.60	9.0
O. Arg. S. 14289−26° 0′.				
May 11	15	1	16.09	
June 26			15.99	6.5
(*)−31° 59′.				
July 1	15	1	29.41	9.0
(*)−37° 1′.				
June 5	15	1	59.00	7.5
O. Arg. N. 15139+46° 58′.				
July 1	15	4	19.66	8.0
(*)−37° 5′.				
June 5	15	5	24.60	7.3
B. A. C. 5001+29° 43′.				
May 11	15	5	25.78	6.5
June 12			25.89	
(*)−37° 5′.				
June 15	15	5	24.38	8.3
Lacaille 6267−38° 0′.				
May 30	15	5	49.60	6.5
June 22			49.47	6.5
(*)−37° 2′.				
June 5	15	7	50.73	7.5
15			50.61	8.0
Lalande 27803+35° 21′.				
June 24	15	8	26.49	7.5
July 1			26.32	8.0
B. A. C. 5026+38° 45′.				
June 22	15	8	38.56	6.5

	h.	m.	s.	Mag.
β Libræ−8° 54′.				
May 11	15	10	0.92	
21			0.94	
June 12			0.85	
(*)−37° 7′.				
June 5	15	11	6.99	8.7
15			6.84	
Lalande 27852−20° 37′.				
July 1	15	11	14.17	7.5
Weisse (2) 237+37° 33′.				
June 22	15	11	23.89	6.0
24			24.04	6.5
O. Arg. S. 14435−30° 19′.				
May 30	15	11	50.70	9.3
Lalande 27880−18° 42′.				
June 26	15	12	2.42	7.5
(*)−37° 9′.				
June 15	15	12	57.65	8.8
(*)−37° 5′.				
June 5	15	13	32.15	8.0
12			32.16	8.5
15			32.12	7.5
(*)−37° 10′.				
May 30	15	13	50.69	7.0
June 5			50.85	6.5
12			50.82	7.0
Lalande 27996+38° 15′.				
June 22	15	14	22.48	7.7
24			22.52	7.0
O. Arg. S. 14487−29° 52′.				
June 26	15	14	34.01	8.3
July 1			34.18	8.0
O. Arg. S. 14490−29° 54′.				
June 26	15	14	49.66	9.0
July 1			49.66	8.8
(*)−37° 1′.				
May 30	15	14	50.69	
(*)−29° 55′.				
June 26	15	15	34.01	
(*)−37° 7′.				
May 30	15	15	52.28	8.3
June 5			52.49	8.0
12			52.42	8.3
(*)−37° 1′.				
June 5	15	16	35.07	8.0
15			35.03	7.5
(*)−37° 1′.				
June 15	15	17	33.67	7.5
(*)+38° 40′.				
June 22	15	19	19.21	8.5
24			19.18	8.3

	h.	m.	s.	Mag.
Rumker 5072+35° 39′.				
June 22	15	19	26.65	
24			26.78	
μ¹ Bootis+37° 50′.				
May 21	15	19	34.73	
(*)−32° 3′.				
July 1	15	19	48.29	
Lacaille 6382−37° 11′.				
June 5	15	19	58.56	
12			58.45	
(*)−37° 14′.				
June 12	15	22	13.12	
(*)−38° 12′.				
May 30	15	21	52.54	
(*)−37° 14′.				
June 5	15	22	13.21	
15			13.02	
(*)+37° 40′.				
July 3	15	21	25.99	
Lalande 28213−21° 27′.				
June 26	15	23	9.56	
July 1			9.64	
Lacaille 6406−32° 11′.				
June 15	15	23	38.86	
22			38.71	
(*)−37° 13′.				
May 30	15	25	22.07	
June 5			22.12	
12			22.11	
Weisse (2) 571+38° 36′.				
June 24	15	25	53.87	
July 3			53.69	
(*)−32° 0′.				
June 15	15	27	8.49	
July 1			8.51	
O. Arg. S. 14674−24° 44′.				
June 26	15	27	53.83	
(*)−32° 13′.				
June 5	15	28	35.50	
(*)−32° 10′.				
June 5	15	28	38.01	
α Coronæ Borealis+27°				
May 30	15	29	11.02	
June 22			11.04	
July 17			11.14	
(*)−22° 29′.				
June 26	15	29	34.47	
July 1			34.61	
41 Libræ−18° 52′.				
July 3	18	31	25.60	

	h.	m.	s.	Mag.
(*)—22° 29′.				
une 26	15	32	5.93	8.5
uly 1			6.02	8.5
(*)+38° 26′.				
une 17	15	33	20.16	6.5
22			20.17	7.5
(*)—15° 35′.				
lay 30	15	33	29.31	8.5
une 5			29.29	9.0
CORONÆ BOREALIS (1st *)+37° 2′.				
une 24	14	34	28.57	7.0
CORONÆ BOREALIS (2d *)+37° 2′.				
une 24	14	34	29.04	6.0
LACAILLE 6495—30° 8′.				
une 12	15	35	23.68	7.2
26			23.58	6.5
WEISSE (2) 862+37° 55′.				
une 17	15	35	35.87	6.5
22			35.85	7.0
LALANDE 28641+37° 26′.				
uly 17	15	35	38.31	8.0
LACAILLE 6499—31° 11′.				
uly 1	15	35	57.65	6.5
3			57.64	7.0
LALANDE 28607—10° 31′.				
lay 30	15	36	6.64	6.5
α SERPENTIS+6° 51′.				
une 26	15	37	51.99	
O. ARG. S. 14864—26° 42′.				
lay 30	15	39	27.86	7.5
ıne 12			27.76	7.3
LACAILLE 6522—37° 15′.				
ıly 1	15	39	31.23	6.5
(*)+37° 55′.				
ıne 15	15	39	40.14	7.5
17			40.25	7.5
22			40.21	7.5
O. ARG. S. 14882—19° 18′.				
ıly 3	15	40	19.57	9.0
B. A. C. 5215—28° 28′.				
ıly 17	15	40	24.78	7.5
O. ARG. S. 14904—19° 2′.				
ıne 26	15	41	17.97	
O. ARG. S. 14909—19° 25′.				
ıly 3	15	41	30.44	9.0
LALANDE 28799+36° 50′.				
ıne 5	15	41	31.62	8.3
17			31.62	8.0

	h.	m.	s.	Mag.
LALANDE 28801+36° 50′.				
June 5	15	41	33.20	6.0
17			33.32	7.0
LALANDE 28834+37° 34′.				
June 12	15	42	35.82	8.0
22			35.82	7.3
μ SERPENTIS—3° 1′.				
July 1	15	42	50.23	4.5
WEISSE 818—2° 48′.				
June 24	15	43	17.16	8.3
WEISSE 825—2° 41′.				
May 30	15	43	37.11	7.7
(*)—14° 24′.				
June 26	15	44	17.94	9.0
July 3			18.05	9.0
ε SERPENTIS+4° 53′.				
June 5	15	44	20.18	
15			20.18	
LALANDE 28917+38° 12′.				
June 12	15	45	47.78	
17			47.64	8.0
A. SCORPII (duplex) (1st *)—24° 56′.				
July 17	15	45	48.42	8.0
A. SCORPII (duplex) (2d *)—24° 56′.				
July 17	15	45	48.59	6.0
LALANDE 28926+37° 56′.				
June 22	15	46	5.27	7.5
(*)—2° 39′.				
May 30	15	46	36.65	6.5
(*)—10° 43′.				
June 26	15	47	5.64	7.0
July 1			5.68	6.7
κ CORONÆ BOREALIS+36° 2′.				
June 24	15	47	19.88	5.5
LACAILLE 6590—35° 33′.				
July 3	14	48	39.31	6.5
O. ARG. S. 15061—16° 25′.				
July 1	15	50	17.56	7.5
48 LIBRÆ—13° 54′.				
July 17	15	50	54.62	6.0
O. ARG. S. 15072—20° 32′.				
June 26	15	50	54.79	7.3
WEISSE (2) 1273+37° 5′.				
June 12	15	51	10.55	7.8
15			10.34	7.3
17			10.56	7.5
φ SERPENTIS+14° 46′.				
May 30	15	51	14.84	6.0
June 5			14.80	6.0

	h.	m.	s.	Mag.
B. A. C. 5299—30° 48′.				
July 3	15	51	43.73	7.0
O. ARG. S. 15101—26° 17′.				
June 22	15	52	37.24	8.0
26			37.34	8.0
WEISSE (2) 1336+37° 34′.				
June 12	15	53	34.27	8.0
24			34.16	8.0
LALANDE 29146+38° 11′.				
June 17	15	53	40.81	6.2
WEISSE (2) 1367+37° 17′.				
June 5	15	54	13.52	7.2
15			13.45	6.5
WEISSE 1011—10° 54′.				
July 1	15	54	25.54	8.3
3			25.56	8.7
WEISSE 1019—10° 55′.				
July 1	15	54	51.47	8.5
3			51.51	8.8
(*)—24° 19′.				
June 26	15	55	26.08	8.2
July 17			26.16	8.5
O. ARG. S. 15179—21° 1′.				
May 30	15	56	57.61	9.2
June 12			57.64	9.0
β SCORPII—19° 26′.				
July 1	15	57	52.87	
θ LUPI—36° 28′.				
June 5	15	58	3.56	4.5
17			3.76	4.5
B. A. C. 5336+36° 58′.				
June 15	15	58	32.46	5.5
22			32.55	6.5
LALANDE 29341+34° 32′.				
June 22	15	59	17.47	7.0
(*)—11° 34′.				
June 26	15	59	24.67	7.2
July 3			24.66	
(*)—38° 48′.				
June 12	15	59	51.89	7.0
July 17			51.90	7.0
LACAILLE 6695—38° 47′.				
June 12	15	59	52.19	
July 17			52.11	7.0
LACAILLE 6703—39° 46.				
July 1	16	1	23.16	7.3
O. ARG. S. 15302—16° 50.				
July 3	16	2	4.15	

	h.	m.	s.	Mag.
(*)—26° 36′.				
June 24	16	2	19.46	7.0
LACAILLE 6716—39° 48′.				
June 26	16	2	22.42	8.0
(*)—21 16′.				
June 5	16	3	49.79	10.0
17			49.68	9.3
(*)—17° 51′.				
July 1	16	4	32.51	7.5
(*)+70° 36′.				
July 17	16	5	17.91	8.0
(*)+70° 36′.				
July 17	16	5	27.25	9.0
WEISSE (2) 154+42° 8′.				
June 26	16	5	39.01	8.5
O. ARG. S. 15403—23° 27′.				
July 3	16	6	14.87	9.2
B. A. C. 5411+36° 44′.				
June 12	16	7	2.90	5.8
17			2.95	5.8
δ OPHIUCHI—3° 21′.				
May 30	16	7	32.10	
June 15			32.03	
B. A. C. 5416—30° 19′.				
June 5	16	7	53.26	7.0
24			53.21	7.0
O. ARG. S. 15438—24° 47′.				
July 1	16	7	55.56	7.5
LALANDE 29654+38° 23′.				
June 12	16	8	35.29	6.8
B. A. C. 5418—23° 58′.				
July 3	16	8	37.77	7.5
(*)—34° 31′.				
June 26	16	8	59.24	8.5
LACAILLE 6765—34° 31′.				
June 26	16	8	59.59	8.0
LACAILLE 6774—34° 37.				
June 15	16	9	46.86	6.5
17			46.92	6.5
26			46.95	6.0
(*)+37° 10′.				
June 5	16	11	52.62	8.5
12			52.73	8.5
(*)—34° 39′.				
June 17	16	11	59.62	9.0
19 SCORPII—23° 50′.				
July 3	16	12	49.03	5.5

	h.	m.	s.	Mag.
(*)+37° 13'.				
June 5 . .	16	12	52.41	8.5
24 . .			52.42	8.0
Lacaille 6806−34° 38'.				
June 15 . .	16	14	42.89	7.0
17 . .			43.00	6.0
Weisse (2) 457+40° 33'.				
June 5 . .	16	15	51.09	7.7
July 3 . .			50.96	7.3
Lacaille 6821−34° 37'.				
June 17 . .	16	16	14.88	6.7
B. A. C. 5464 (duplex) (1st *)−29° 25'.				
June 26 . .	16	16	29.98	6.5
B. A. C. 5464 (duplex) (2d *)−29° 25'.				
June 26 . .	16	16	30.03	5.5
B. A. C. 5465−26° 50'.				
July 1 . .	16	16	30.74	6.7
Lacaille 6821−34° 37'.				
June 15 . .	16	17	14.72	7.0
B. A. C. 5471−31° 25'.				
June 22 . .	16	17	24.59	7.7
O. Arg. S. 15641−29° 8'.				
July 1 . .	16	19	9.55	8.3
O. Arg. S. 15643−29° 5'.				
July 1 . .	16	19	15.44	8.0
Weisse (2) 573 (duplex) (1st and N. *) +37° 19'.				
June 5 . .	16	19	31.68	8.0
12 . .			31.74	8.0
15 . .			31.55	7.5
Weisse (2) 573 (duplex) (2d and S. *) +37° 19'.				
June 5 . .	16	19	31.84	7.8
12 . .			31.92	7.8
15 . .			31.79	7.3
25 Herculis+37° 40'.				
June 22 . .	16	20	46.16	6.5
July 17 . .			46.33	6.0
O. Arg. S. 15725−24° 2'.				
June 5 . .	16	25	59.99	8.0
12 . .		26	0.08	8.2
15 . .			0.04	9.3
Weisse (2) 788+33° 47'.				
July 1 . .	15	26	37.91	6.0
3 . .			37.78	6.5
(*)+35° 44'.				
June 22 . .	16	29	24.32	7.5
ζ Ophiuchi−10° 18'.				
June 5 . .	16	30	0.05	
12 . .			0.05	
26 . .			0.10	
July 17 . .			0.02	

	h.	m.	s.	Mag.
Lacaille 6910−36° 59'.				
June 15 . .	16	30	23.24	6.7
July 1 . .			23.41	6.0
O. Arg. S. 15811−26° 13'.				
June 5 . .	16	32	11.98	8.0
26 . .			11.83	8.3
Lalande 30327+37° 45'.				
June 22 . .	16	32	51.60	7.0
July 1 . .			51.62	6.5
Lacaille 6993−36° 51'.				
June 15 . .	16	33	28.13	7.2
Lacaille 6933−36° 51'.				
June 12 . .	16	33	47.35	6.2
Weisse (2) 1075+38° 36'.				
July 17 . .	16	34	38.57	7.5
(*)−26° 14'.				
June 5 . .	16	35	5.18	8.0
26 . .			5.17	8.0
(*)+38° 30'.				
July 3 . .	16	35	14.40	7.0
Lalande 30419+37° 35'.				
June 22 . .	16	35	40.57	7.3
(*)−39° 10'.				
June 15 . .	16	35	49.35	6.5
Lacaille 6970−39° 10'.				
June 15 . .	16	37	54.50	5.5
July 17 . .			54.46	5.5
O. Arg. S. 15923−27° 16'.				
June 5 . .	16	38	31.84	7.5
12 . .			31.88	7.6
Lalande 30506−19° 40'.				
June 12 . .	16	40	8.89	8.5
26 . .			8.88	8.0
(*)−30° 3'.				
June 5 . .	16	42	15.31	8.0
July 1 . .			15.36	9.0
Weisse (2) 1341+37° 45'.				
June 22 . .	16	43	5.23	6.5
24 . .			5.43	6.5
(*)−30° 8'.				
June 12 . .	16	43	32.13	8.5
July 1 . .			32.14	9.0
(*)−26° 40'.				
June 26 . .	16	43	48.36	7.0
July 17 . .			48.32	7.0
(*)−26° 44'.				
June 26 . .	16	44	10.28	7.0
July 17 . .			10.33	7.5

	h.	m.	s.	Mag.
O. Arg. S. 16046−30° 14'.				
June 5 . .	16	44	50.75	6.8
12 . .			50.82	6.5
July 1 . .			50.75	7.3
(*)−26° 34'.				
June 26 . .	16	44	53.30	7.0
O. Arg. S. 16060−30° 13'.				
June 5 . .	16	45	26.58	7.7
12 . .			26.70	8.3
July 1 . .			26.58	8.3
(*)−26° 33'.				
June 22 . .	16	46	10.84	9.0
26 . .			10.96	8.6
Lalande 30745+38° 8'.				
June 15 . .	16	46	51.95	7.0
July 3 . .			51.92	7.0
O. Arg. S. 16121−30° 22'.				
July 1 . .	16	48	20.43	7.0
17 . .			20.37	
B. A. C. 5705+77° 44'.				
June 15 . .	16	48	55.35	
(*)−26° 31'.				
June 12 . .	16	49	24.68	8.8
22 . .			24.47	
(*)−25° 53'.				
June 26 . .	16	50	15.80	7.0
κ Ophiuchi+9° 35'.				
June 5 . .	16	51	31.00	
12 . .			30.87	
Aug. 12 . .			30.92	
14 . .			30.95	
O. Arg. S. 16184−30° 2'.				
July 1 . .	16	52	6.76	8.6
(*)+38° 23'.				
July 17 . .	16	52	50.55	7.5
(*)−37° 8'.				
June 12 . .	16	53	8.63	
Lacaille 7087−33° 12'.				
June 26 . .	16	53	13.94	6.5
(*)−37° 0'.				
June 22 . .	16	54	41.90	9.0
(*)−37° 0'.				
June 22 . .	16	54	51.84	8.5
O. Arg. S. 16240−26° 54'.				
June 15 . .	16	54	59.32	7.5
Aug. 14 . .			59.30	7.5
Weisse (2) 1735+25° 41'.				
Aug. 7 . .	16	56	58.88	

	h.	m.	s.	Mag.
Lacaille 7123−37° 5'.				
June 12 . .	16	57	33.17	
22 . .			33.11	
Aug. 12 . .			33.11	
(*)−36° 57'.				
June 12 . .	16	57	36.29	
22 . .			36.17	
(*)−37° 10'.				
June 26 . .	16	58	41.34	
Aug. 12 . .			41.28	
Lacaille 7133−40° 51'.				
July 1 . .	16	59	11.40	
ε Ursæ Minoris+82° 15'.				
June 12 . .	16	59	22.91	
15 . .			22.80	
B. A. C. 5762−30° 54'.				
Aug. 14 . .	16	59	23.03	
(*)−37° 20'.				
June 22 . .	17	3	6.37	
O. Arg. S. 16450−25° 4'.				
Aug. 7 . .	17	4	32.10	
Lacaille 7168−38° 10'.				
June 26 . .	17	5	0.35	
July 1 . .			0.35	
Weisse (2) 107+38° 25'.				
June 15 . .	17	5	10.13	
Aug. 14 . .			10.15	
Lacaille 7174−38° 7'.				
June 26 . .	17	6	29.25	
July 1 . .			29.35	
O. Arg. S. 16503−30° 7'.				
Aug. 12 . .	17	7	10.57	
B. A. C. 5809−30° 7'.				
Aug. 7 . .	17	7	33.08	
12 . .			33.15	
O. Arg. S. 16511−20° 49'.				
July 17 . .	17	7	58.81	
B. A. C. 5815−25° 11'.				
June 22 . .	17	8	27.74	
Aug. 14 . .			27.77	
α Herculis+14° 32'.				
June 12 . .	17	8	43.27	
15 . .			43.26	
Lacaille 7207−38° 3'.				
June 26 . .	17	9	12.38	
July 1 . .			12.54	
O. Arg. S. 16586−22° 34'.				
Aug. 12 . .	17	11	4.02	

O. Arg. S. 16607−26° 31′.	h. m. s.	Mag.
June 12	17 11 56.14	8.2
Aug. 14	56.19	7.5
(*)−27° 39′.		
June 26	17 11 58.26	8.5
July 1	58.33	8.5
B. A. C. 5839−17° 37′.		
Aug. 7	17 12 19.22	6.0
O. Arg. S. 16624−26° 24′.		
Aug. 14	17 12 26.37	6.5
O. Arg. S. 16644−26° 21′.		
Aug. 14	17 13 21.51	7.5
Lalande 31492−5° 25′.		
June 22	17 13 22.85	7.2
Lacaille 7244−35° 47′.		
July 1	17 13 54.10	6.0
17	53.93	
(*)−35° 13′.		
Aug. 12	17 14 6.46	8.5
O. Arg. S. 16676−27° 35′.		
June 12	17 14 37.14	9.0
O. Arg. S. 16680−22° 35′.		
June 26	17 14 46.86	8.8
(*)−35° 15′.		
Aug. 12	17 14 53.06	8.0
Lalande 31543−17° 35′.		
Aug. 7	17 15 1.36	7.5
O. Arg. S. 16710−30° 24′.		
June 22	17 16 7.56	8.5
B. A. C. 5869−29° 33′.		
Aug. 7	17 17 12.54	6.5
12	12.52	
O. Arg. S. 16749−28° 34′.		
June 12	17 17 38.15	9.0
(*)−20° 41′.		
June 26	17 18 7.04	8.5
July 1	7.12	9.0
Weisse (2) 554+38° 42′.		
July 17	17 19 39.75	6.0
(*)−31° 6′.		
Aug. 14	17 19 48.50	8.2
Lalande 31790−37° 18′.		
Aug. 7	17 20 40.64	
(*)+37° 49′.		
Aug. 12	17 21 3.13	7.2

(*)−40° 57′.	h. m. s.	Mag.
Jnne 26	17 22 33.48	7.5
July 1	33.59	6.0
(*)−31° 47′.		
Aug. 14	17 23 10.67	8.5
B. A. C. 5908−31° 45′.		
Aug. 17	17 23 35.24	8.0
(*)−29° 35′.		
July 1	17 24 45.99	6.0
(*)−29° 37′.		
June 12	17 25 46.00	6.8
B. A. C. 5927+31° 15′.		
July 17	17 26 0.03	5.5
Aug. 7	0.00	5.7
Weisse (2) 831+35° 51′.		
Aug. 7	17 27 51.62	7.5
12	51.65	7.0
(*)−37° 22′.		
June 26	17 27 59.68	8.0
July 1	59.61	9.0
O. Arg. S. 16978−17° 47′.		
July 17	17 28 38.55	6.5
Aug. 14	38.48	7.0
(*)−35° 17′.		
June 12	17 28 49.13	8.0
α Ophiuchi+12° 40′.		
June 22	17 28 54.04	
Sept. 7	53.99	
O. Arg. S. 17016−26° 52′.		
Aug. 14	17 30 58.84	7.5
Lalande 32165+37° 22′.		
Aug. 7	17 31 14.37	6.0
12	14.28	6.0
(*)−35° 5′.		
June 26	17 31 58.01	8.0
July 1	57.93	9.0
O. Arg. S. 17063−18° 3′.		
June 12	17 33 7.65	8.3
O. Arg. S. 17068−18° 7′.		
June 12	17 33 31.76	9.0
O. Arg. S. 17070−19° 24′.		
Aug. 14	17 33 37.41	8.7
(*)−34° 16′.		
Aug. 12	17 33 55.88	7.5
(*)−35° 14′.		
July 1	17 34 44.06	7.5

(*)−34° 24′.	h. m. s.	Mag.
Aug. 12	17 35 8.58	7.8
Lalande 32322+37° 17′.		
Aug. 7	17 35 14.24	8.0
(*)−31° 15′.		
June 26	17 35 40.14	7.5
(*)−35° 8′.		
Aug. 14	17 36 37.11	8.5
(*)−7° 51′.		
June 12	17 37 30.89	8.0
Lacaille 7433−38° 5′.		
Aug. 12	17 39 32.31	6.5
Taylor 8219−18° 6′.		
June 12	17 39 50.81	7.0
26	50.86	6.5
(*)−38° 5′.		
Aug. 7	17 40 2.18	8.0
μ Herculis+27° 48′.		
July 1	17 41 22.26	
17	22.29	
26	22.28	
O. Arg. S. 17249−26° 47′.		
June 26	17 41 58.32	7.0
Aug. 14	58.28	7.3
(*)−34° 47′.		
June 12	17 43 12.70	7.5
(*)+36° 9′.		
Aug. 7	17 43 24.65	7.0
(*)+36° 35′.		
Aug. 12	17 43 25.78	7.0
(*)+36° 7′.		
Aug. 7	17 43 30.67	7.5
B. A. C. 6029−34° 48′.		
June 12	17 43 33.38	
B. A. C. 6039−31° 59′.		
June 26	17 44 44.27	6.5
Aug. 14	44.25	6.5
B. A. C. 6045−34° 50′.		
Sept. 7	17 45 42.86	5.0
(*)+37° 44′.		
July 17	17 46 29.94	7.3
Aug. 7	29.90	7.5
Lalande 32706−18° 16′.		
June 26	17 47 29.24	8.2
July 1	29.19	8.5
B. A. C. 6062+40° 1′.		
Sept. 7	17 47 50.69	5.5

O. Arg. S. 17379−27° 7′.	h. m. s.	Mag.
Aug. 12	17 48 48.37	7.7
14	48.48	8.5
(*)−28° 4′.		
June 26	17 49 56.07	7.5
July 1	56.14	8.0
(*)−28° 2′.		
June 26	17 49 57.12	7.5
July 1	57.08	8.0
θ Herculis+37° 16′.		
July 17	17 51 47.59	4.5
Aug. 7	47.67	5.0
B. A. C. 6081−20° 19′.		
Sept. 7	17 52 16.10	5.3
(*)−38° 4′.		
Aug. 12	17 52 35.89	6.0
14	35.91	6.0
(*)−27° 52′.		
June 26	17 53 6.64	8.0
July 1	6.70	8.5
(*)+36° 17′.		
Aug. 7	17 54 10.33	6.0
(*)−27° 49′.		
June 26	17 54 39.89	7.5
July 1	39.87	8.3
(*)−27° 49′.		
Sept. 7	17 54 43.01	6.0
35 Draconis+76° 59′.		
July 17	17 55 16.05	5.5
(*)−25° 40′.		
Aug. 12	17 55 54.41	7.7
14	54.47	8.0
(*)−24° 15′.		
June 26	17 55 58.79	7.0
γ^2 Sagittarii−30° 25′.		
Sept. 10	17 57 27.43	4.5
(*)−36° 37′.		
June 26	17 58 15.25	8.2
July 1	15.40	8.5
(*)−27° 40′.		
Aug. 7	18 0 15.09	7.0
12	15.06	7.0
B. A. C. 6144−32° 10′.		
Aug. 14	18 1 33.94	7.5
Sept. 7	34.03	7.2
100 Herculis (duplex) (1st and N.*) +26° 5′.		
July 17	18 2 35.02	5.5
Sept. 10	35.06	

	h. m. s.	Mag.
100 Herculis (duplex) (2d and S. *) +26° 5′.		
July 17 . .	18 2 35.08	5.5
Sept. 10 . .	35.16	
(*)−39° 22′.		
Aug. 12 . .	18 3 7.56	8.5
Lacaille 7598−39 22′.		
Aug. 12 . .	18 3 27.14	7.3
Lacaille 7605−39 11′.		
Aug. 12 . .	18 3 57.61	7.3
(*)−17° 28′.		
Aug. 7 . .	18 5 10.17	7.0
Sept. 7 . .	10.24	7.5
μ Sagittarii−21° 5′.		
June 26 . .	18 5 59.33	
Aug. 14 . .	59.26	
Sept. 7 . .	59.33	
B. A. C. 6175−32° 23′.		
July 1 . .	18 7 7.42	7.5
(*)+37° 41′.		
July 17 . .	18 7 15.27	8.0
(*)−27° 28′.		
Aug. 7 . .	18 8 13.41	7.0
Lalande 33592+38° 34′.		
Aug. 12 . .	18 8 15.82	
14 . .	15.73	8.0
Sept. 10 . .	15.70	
(*)+38° 34′.		
Aug. 12 . .	18 8 19.67	
14 . .	19.65	9.0
Lalande 33602+35° 9′.		
Sept. 7 . .	18 8 38.93	7.0
16 . .	38.99	7.5
B. A. C. 6193+38° 44′.		
Aug. 12 . .	18 8 44.61	6.0
Sept. 10 . .	44.51	
(*)+38° 44′.		
Aug. 12 . .	18 8 54.65	9.0
(*)−17° 25′.		
June 26 . .	18 9 16.26	9.0
(*)−17° 27′.		
June 26 . .	18 9 37.73	5.5
July 1 . .	37.69	7.5
(*)−17° 46′.		
July 1 . .	18 11 56.19	9.0
Aug. 7 . .	56.08	8.5
(*)+36° 59′.		
Aug. 14 . .	18 12 13.68	8.0
Sept. 7 . .	13.64	6.5
Lalande 33694−17° 44.		
July 1 . .	18 12 14.93	7.0
Aug. 7 . .	14.99	6.5
O. Arg. S. 18074−17 49.		
Aug. 7 . .	18 13 3.74	7.5
Lalande 33748−18° 55′.		
Sept. 16 . .	18 13 44.16	6.5
Taylor 8458−26 29.		
Sept. 10 . .	18 14 15.13	8.0
(*)−26° 31′.		
Sept. 10 . .	18 14 31.69	8.5
(*)−26° 29′.		
Sept. 10 . .	18 15 43.49	8.5
O. Arg. S. 18151−26° 31′.		
Aug. 14 . .	18 16 4.18	7.0
Sept. 7 . .	4.21	7.0
10 . .	4.25	7.5
O. Arg. S. 18160−26° 34.′		
Aug. 14 . .	18 16 33.78	8.0
Sept. 7 . .	33.78	7.7
Lacaille 7695−36° 4.		
Sept. 16 . .	18 16 36.58	6.0
B. A. C. 6249−30° 28′.		
July 17 . .	18 18 19.34	
Sept. 18 . .	19.62	6.0
(*)−29 35′.		
July 1 . .	18 18 47.55	8.0
Aug. 12 . .	47.47	7.8
B. A. C. 6254−33° 29.		
Sept. 19 . .	18 18 57.73	6.5
(* 18) Washington−22° 30′.		
Aug. 14 . .	18 19 45.09	9.5
Sept. 10 . .	45.18	9.5
B. A. C. 6254 (N. *)−26° 50′.		
Sept. 7 . .	18 19 59.32	6.5
O. Arg. S. 18234−26° 51′.		
Sept. 7 . .	18 20 2.10	8.5
(*)−28° 53′.		
Aug. 12 . .	18 20 13.44	8.0
(*)−22° 32′.		
Sept. 10 . .	18 20 20.87	9.0
(*)−35° 25′.		
July 1 . .	18 22 12.56	8.0
17 . .	12.58	8.3
B. A. C. 6283−28° 53′.		
Aug. 12 . .	18 22 16.39	6.5
Sept. 16 . .	16.45	7.3
(*)+35° 59.′		
Aug. 7 . .	18 22 22.51	7.5
14 . .	22.55	8.0
(*)+35 57.		
Aug. 7 . .	18 22 27.50	7.5
14 . .	27.25	8.0
B. A. C. 6285−33 5′.		
Sept. 18 . .	18 22 33.03	6.0
(*)−33 2.		
Sept. 19 . .	18 23 51.91	7.0
θ Coronæ Australis−42 24′.		
Sept. 10 . .	18 24 12.95	5 5
18 . .	12.98	5.0
Lalande 34274+35 42.		
Sept. 16 . .	18 24 15.70	7.0
(*)−33° 4.		
Sept. 7 . .	18 24 40.48	8.3
(*)−36 54′.		
Aug. 12 . .	18 24 47.65	9.0
(*)−36° 54′.		
Aug. 12 . .	18 24 50.76	8.3
c Serpentis−1 6.		
July 17 . .	18 25 14.14	5.5
(*)−36° 55′.		
Aug. 14 . .	18 27 3.45	8.3
O. Arg. S. 18413−22 12.		
Aug. 7 . .	18 27 30.76	7.0
10 . .	30.78	8.0
B. A. C. 6321−29 48.		
Sept. 7 . .	18 27 41.55	
16 . .	41.60	6.0
1 Aquilæ−8° 20′.		
July 1 . .	18 28 7.90	
Aug. 12 . .	7.91	
Sept. 18 . .	7.89	
19 . .	7.91	
21 . .	7.94	
30 . .	7.93	
Lalande 34412+37° 19.		
Aug. 26 . .	18 28 25.12	7.7
B. A. C. 6331−25° 46.		
July 17 . .	18 29 8.61	7.0
Lacaille 7802−34° 17′.		
Sept. 19 . .	18 30 41.41	7.0
(*)−32° 9.		
Aug. 7 . .	18 30 57.72	8.5
14 . .	57.86	7.5
O. Arg. S. 18495−16° 26.		
Sept. 7 . .	18 31 6.78	7.2
10 . .	6.85	7.8
Lalande 34581+37 55′.		
Sept. 16 . .	18 31 46.73	[illegible]
18 . .	46.76	[illegible]
O. Arg. S. 18525−25° 7.		
Aug. 7 . .	18 32 47.55	[illegible]
(*)+37° 39′.		
Aug. 17 . .	18 33 4.35	[illegible]
26 . .	4.31	[illegible]
Weisse 793−9 16.		
Sept. 21 . .	18 33 14.16	[illegible]
(*)−31° 36′.		
July 17 . .	18 33 32.30	[illegible]
Aug. 12 . .	32.30	[illegible]
O. Arg. S. 18536−25° 7.		
Aug. 7 . .	18 33 36.99	[illegible]
Sept. 7 . .	37.03	[illegible]
Lacaille 7823−39 24.		
Sept. 19 . .	18 33 52.94	[illegible]
(*)−37° 58.		
Aug. 14 . .	18 34 16.01	[illegible]
(*)−31° 46.		
Aug. 12 . .	18 34 51.01	[illegible]
Sept. 18 . .	51.06	
O. Arg. S. 18584−19° 21.		
Sept. 21 . .	18 35 38.72	[illegible]
O. Arg. S. 18587−21° 3.		
Sept. 7 . .	18 35 47.42	[illegible]
B. A. C. 6363−39° 49.		
Sept. 16 . .	18 35 55.15	[illegible]
19 . .	55.16	[illegible]
Lacaille 7831−39° 52.		
Sept. 16 . .	18 35 57.10	[illegible]
18 . .	57.17	[illegible]
O. Arg. S. 18609−21° 6.		
Sept. 7 . .	18 36 52.34	[illegible]
(*)+72° 9.		
Aug. 26 . .	18 37 30.25	[illegible]
Lacaille 7843−34° 3.		
July 17 . .	18 37 55.77	[illegible]
Aug. 7 . .	55.59	[illegible]
Lamont 6333−1 [illegible].		
Sept. 10 . .	18 37 56.81	[illegible]
Lalande 35004+72 9.		
Aug. 26 . .	18 38 12.64	[illegible]
B. A. C. 6377−29° 46.		
Sept. 21 . .	18 38 30.54	[illegible]

Star	Date	h. m.	s.	Mag.
Lalande 34868+36° 24′.	Aug. 12	18 39	2.80	5.7
	14		2.75	5.7
Lalande 35041+72° 8′.	Aug. 26	18 39	12.36	8.3
Lacaille 7858—37° 4′.	Sept. 19	18 39	32.64	6.0
Lalande 34860—19° 21′.	Sept. 16	18 40	34.12	6.0
Lacaille 7865—34° 53′.	Sept. 7	18 40	38.59	5.8
Brisbane 6501—44° 38′.	Sept. 10	18 41	52.69	8.0
(*)—37° 24′.	Sept. 21	18 42	16.50	7.0
O. Arg. S. 18735—22° 19′.	Sept. 7	18 43	1.51	5.7
. Arg. S. 18747 (dup.) (1st *)—22° 11′.	Aug. 7	18 43	30.02	8.0
	12		30.01	
. Arg. S. 18747 (dup.) (2d *)—22° 11′.	Aug. 7	18 43	30.59	8.2
	12		30.55	
31 Sagittarii—22° 5′.	Aug. 7	18 44	19.70	6.0
	12		19.65	5.7
B. A. C. 6413—29° 32′.	Sept. 16	18 44	21.47	6.0
	30		21.51	5.5
Lalande 35046—20° 21′.	Sept. 19	18 44	33.82	8.2
β Lyræ (1st *)+33° 13′.	July 17	18 45	16.86	
	Aug. 17		16.77	
	26		16.81	
	Sept. 17		16.82	
	29		16.83	
β Lyræ (2d *)+33° 13′.	Aug. 26	18 45	18.71	
	Sept. 17		18.71	
	29		18.73	
33 Sagittarii—21° 31′.	Sept. 7	18 46	13.80	5.0
(*)—22° 51′.	Sept. 21	18 46	24.12	7.5
B. A. C. 6439—29° 23′.	Aug. 14	18 47	11.12	6.0
	Sept. 10		11.18	6.5
(*)—33° 24′.	Aug. 12	18 47	27.39	7.5
	Sept. 16		27.55	7.0
	19		27.54	7.0
(*)—33° 24′.	Aug. 12	18 47	48.23	8.0
	Sept. 16		48.28	7.5
	19		48.20	7.5
B. A. C. 6447—16° 33′.	Sept. 30	18 48	1.64	5.5
O. Arg. S. 18847—16° 31′.	Sept. 30	18 48	14.73	7.5
Lacaille 7926—33° 26′.	Sept. 16	18 48	25.28	7.0
	19		25.19	7.0
(*)—33° 26′.	Sept. 19	18 48	25.80	8.8
B. A. C. 6450—23° 19′.	Sept. 7	18 48	41.89	8.0
62 Serpentis+6° 26′.	Sept. 21	18 49	7.18	6.0
Lacaille 7932—39° 43′.	Aug. 14	18 50	11.51	6.0
50 Draconis+75° 16′.	Aug. 26	18 50	46.09	
(*)+35° 38′.	Aug. 7	18 51	15.77	6.0
	12		15.78	6.0
O. Arg. S. 18915—28° 53′.	Sept. 29 1	18 51	51.57	
Weisse 1301—8° 21′.	Sept. 7	18 52	11.83	8.0
	17		11.99	8.0
B. A. C. 6479—25° 8′.	Sept. 10	18 52	26.01	6.0
ε Aquilæ+14° 53′.	Sept. 29	18 53	18.08	
(*)—22° 1′.	Sept. 19	18 53	20.76	9.2
O. Arg. S. 18953—19° 32′.	Oct. 1	18 53	25.76	7.5
Weisse 1333—7° 34′.	Sept. 30	18 53	28.13	7.5
(*)—38° 29′.	Aug. 12	18 53	44.38	8.5
	14		44.43	9.0
γ Lyræ+32° 30′.	Aug. 26	18 54	4.55	
	Sept. 16		4.60	5.0
O. Arg. S. 18978—20° 39′.	Sept. 7	18 54	58.35	9.0
	10		58.42	8.8
O. Arg. S. 18979—20° 38′.	Sept. 7	18 54	59.70	8.5
	10		59.73	8.0
υ Draconis+71° 2′.	Sept. 17	18 55	58.69	
	30		58.71	
(*)—8° 46′.	Sept. 16	18 57	2.69	9.0
	19		2.77	9.0
Weisse 1430—8° 46′.	Sept. 16	18 57	7.31	8.5
	19		7.35	8.7
B. A. C. 6515—27° 29′.	Sept. 7	18 58	12.86	6.5
(*)—23° 28′.	Sept. 10	18 58	40.56	7.7
	29		40.36	6.5
Weisse 1480—9° 7′.	Aug. 7	18 58	48.35	7.5
	12		48.35	7.0
ζ Aquilæ+13° 41′.	Aug. 31	18 59	26.02	
	Sept. 28		26.07	
	Oct. 5		26.02	
O. Arg. S. 19086—21° 49′.	Aug. 14	18 59	38.78	7.5
	17		38.76	7.7
O. Arg. S. 19098—21° 55′.	Aug. 14	19 0	14.53	6.3
	17		14.54	6.5
Lalande 35802+38° 33′.	Sept. 17	19 0	23.09	7.5
	21		23.00	7.5
O. Arg. S. 19104—22° 0′.	Aug. 14	19 0	25.08	7.0
	17		24.98	7.2
α Coronæ Australis—38° 6′.	Sept. 18	19 0	37.37	5.0
	19		37.35	5.0
(*)—30 51′.	Sept. 10	19 0	49.09	8.0
	30		49.09	
Lalande 35866+37° 10′.	Oct. 1	19 1	55.78	7.5
	5		55.74	7.5
(*)—21° 38′.	Aug. 7	19 1	56.27	8.5
	Sept. 7		56.29	
O. Arg. S. 19155—21° 40′.	Aug. 7	19 1	58.02	8.0
	Sept. 7		58.06	
O. Arg. S. 19179—21° 52′.	Aug. 17	19 2	47.97	8.0
	Sept. 19		47.98	8.3
O. Arg. S. 19188—29° 42′.	Aug. 31	19 3	4.44	6.5
	Sept. 10		4.54	6.5
Lalande 36002+38° 17′.	Aug. 14	19 4	10.60	7.7
	Sept. 16		10.36	7.0
B. A. C. 6561—21° 52′.	Sept. 17	19 4	41.91	6.0
	19		41.84	7.0
Lalande 36051+37° 34′.	Aug. 7	19 5	14.94	7.5
	Sept. 18		14.85	7.5
(*)—8° 32′.	Aug. 31	19 6	47.23	9.5
B. A. C. 6574+21° 19′.	Aug. 12	19 7	2.17	5.7
	17		2.06	6.5
(*)—33° 47′.	Sept. 19	19 7	16.87	8.0
	29		16.76	7.0
	Oct. 5		16.94	7.5
(*)—33° 49′.	Sept. 19	19 7	19.69	9.0
	29		19.67	8.5
O. Arg. S. 19306—22° 5′.	Aug. 14	19 8	10.29	8.0
	Sept. 7		10.35	
(*)—32° 5′.	Sept. 18	19 8	17.91	7.0
(*)—32° 5′.	Sept. 18	19 8	25.37	9.0
(*)—8° 56′.	Aug. 7	19 8	32.01	
O. Arg. S. 19319—22° 2′.	Aug. 14	19 8	50.14	8.5
	Sept. 7		50.24	8.0
Lalande 36229+38° 49′.	Sept. 16	19 9	3.15	7.5
	17		3.35	7.3
(*)+38° 49′.	Sept. 16	19 9	6.01	8.2
	17		6.22	8.2

	h.	m.	s.	Mag.
Weisse 187—8° 55′.				
Aug. 7	19	9	11.32	
17			11.30	6.5
31			11.18	7.5
53 Draconis+56° 38′.				
Sept. 28	19	9	13.22	
Oct. 1			13.03	
Lalande 36238+36° 12′.				
Sept. 30	19	9	14.42	6.5
(*)—8° 58′.				
Aug. 31	19	9	21.98	9.0
(*)—8° 51′.				
Sept. 10	19	9	36.60	9.3
(*)—19° 17′.				
Sept. 21	19	9	54.12	8.0
d Sagittarii—19° 11′.				
Aug. 12	19	10	1.55	
Lacaille 8066—33° 34′.				
Sept. 29	19	10	31.91	6.8
Lacaille 8064—36° 53′.				
Oct. 5	19	10	47.89	7.0
(*)—19° 18′.				
Sept. 21	19	10	53.86	9.0
O. Arg. S. 19371—23° 47′.				
Sept. 19	19	11	25.53	7.5
O. Arg. S. 19374—18° 10′.				
Aug. 14	19	11	33.56	8.0
B. A. C. 6606+46° 50′.				
Sept. 18	19	12	11.33	8.0
(*)—19° 14′.				
Sept. 30	19	12	52.61	8.2
Oct. 1			52.62	8.8
(*)—10° 13′.				
Sept. 10	19	13	7.28	8.3
17			7.18	8.7
Gr. C. 1710+46° 49′.				
Sept. 7	19	13	7.45	5.8
(*)—19° 18′.				
Sept. 30	19	13	12.88	8.4
Oct. 1			12.79	8.8
f Aquilæ—5° 39′.				
Aug. 12	19	13	36.44	5.0
Sept. 21			36.42	5.5
B. A. C. 6613—29° 46′.				
Sept. 29	19	13	49.64	6.0
Weisse 315—10° 24′.				
Sept. 19	19	14	12.83	7.3

	h.	m.	s.	Mag.
ν Sagittarii—16° 11′.				
Oct. 5	19	14	16.73	6.0
(*)+37° 10′.				
Aug. 17	19	14	25.53	8.3
Lalande 36478+37° 12′.				
Aug. 14	19	14	26.57	6.7
17			26.40	6.0
Lalande 36426—19° 16′.				
Aug. 31	19	14	59.37	
Sept. 18			59.33	
Lalande 36513+37° 6′.				
Aug. 14	19	15	4.59	6.5
Sept. 28			4.69	6.5
(*)+36° 29′.				
Aug. 7	19	15	8.18	
Lalande 36448—19° 14′.				
Aug. 31	19	15	27.37	
Sept. 18			27.44	
O. Arg. S. 19472—18° 6′.				
Sept. 10	19	15	56.01	7.8
17			55.99	7.3
(*)—34° 32′.				
Sept. 30	19	17	5.80	8.3
(*)—34° 39.				
Sept. 30	19	17	17.02	8.0
(*)—19° 18′.				
Aug. 31	19	17	28.89	8.5
Sept. 21			29.02	9.0
(*)—8° 7′.				
Sept. 28	19	18	1.81	9.0
O. Arg. S. 19525—19° 26′.				
Sept. 29	19	18	5.51	8.5
50 Sagittarii—22° 3′.				
Aug. 12	19	18	33.81	5.5
14			33.71	5.5
B. A. C. 6643—15° 19′.				
Sept. 17	19	18	47.25	5.6
δ Aquilæ+2° 51′.				
Sept. 10	19	18	56.63	
19			56.51	
Oct. 12			56.58	
Weisse 438+2° 54′.				
Sept. 19	19	19	3.47	8.2
Lalande 36729+38° 57′.				
Aug. 17	19	19	43.00	7.5
Oct. 1			43.08	7.0
Lalande 36732+36° 55′.				
Sept. 7	19	19	53.82	7.0
Oct. 5			53.80	7.5

	h.	m.	s.	Mag.
(*)+36° 57′.				
Sept. 7	19	20	0.08	7.0
Lalande 36774+36° 59′.				
Sept. 7	19	20	41.29	6.5
(*)—39° 35′.				
Sept. 18	19	21	10.40	9.0
21			10.58	8.0
(*)—15° 23′.				
Aug. 12	19	21	11.57	5.8
14			11.49	6.0
O. Arg. S. 19600—26° 1′.				
Aug. 31	19	21	12.44	
O. Arg. S. 19608—26° 1′.				
Aug. 31	19	21	39.26	
Sept. 28			39.32	9.0
30			39.44	8.5
O. Arg. S. 19618—27° 37′.				
Sept. 29	19	21	57.74	8.0
O. Arg. S. 19623—19° 46′.				
Sept. 17	19	22	3.75	8.0
O. Arg. S. 19631—19° 39.				
Sept. 10	19	22	32.67	7.5
17			32.73	7.5
Lalande 36891+37° 40.				
Aug. 17	19	23	2.29	6.0
Oct. 1			2.35	6.5
(*)—20° 42.				
Aug. 12	19	23	50.06	9.0
O. Arg. S. 19665—19° 38′.				
Sept. 10	19	24	5.73	6.5
19			5.67	7.0
28			5.65	6.0
Oct. 12			5.68	6.5
Lalande 36878—20° 42′.				
Aug. 12	19	24	26.86	8.3
14			26.74	7.0
O. Arg. S. 19689—22° 16′.				
Sept. 30	19	25	10.98	8.5
Lacaille 8138—40° 19′.				
Sept. 18	19	25	13.12	5.5
Oct. 5			13.09	6.0
B. A. C. 6691+27° 41′.				
Aug. 14	19	25	28.69	
Sept. 16			28.41	
(*)+27° 41′.				
Aug. 17	19	25	30.85	7.3
Sept. 16			30.75	
O. Arg. S. 19693—19° 33′.				
Aug. 31	19	25	36.00	8.3
Sept. 7			36.10	8.0

	h.	m.	s.
(*)—27° 21′.			
Sept. 17	19	25	46.84
21			46.75
(*)—27° 21′.			
Sept. 17	19	25	48.51
21			48.69
O. Arg. S. 19708—27° 26.			
Sept. 17	19	26	22.79
O. Arg. S. 19714—27° 26.			
Sept. 17	19	26	30.91
O. Arg. S. 19732—19° 52.			
Aug. 31	19	27	41.53
O. Arg. S. 19748—19° 53.			
Aug. 7	19	28	29.53
12			29.63
O. Arg. S. 19753—19° 12.			
Sept. 10	19	28	37.37
19			37.30
Lacaille 8158—41° 44.			
Sept. 29	19	28	37.64
30			37.74
Weisse 692—10° 39.			
Oct. 12	19	28	39.77
(*)—27° 23.			
Sept. 17	19	28	43.75
21			43.61
O. Arg. S. 19758—27° 47			
Oct. 1	19	28	54.12
O. Arg. S. 19770—19° 4.			
Sept. 19	19	29	14.75
28			14.77
O. Arg. S. 19775—20° 30.			
Oct. 5	19	29	31.64
κ Aquilæ—7° 19′.			
Aug. 14	19	29	53.77
Sept. 7			53.76
Oct. 16			53.74
O. Arg. S. 19790—28° 5.			
Aug. 17	19	30	20.33
(*)—27° 39′.			
Oct. 1	19	30	20.47
O. Arg. S. 19809—27° 40			
Sept. 29	19	30	53.82
(*—23° 40′.			
Sept. 19	19	32	0.43
O. Arg. S. 19837—25° 7.			
Aug. 12	19	32	16.88
Sept. 10			16.92

	h. m. s.	Mag.
(*)−23° 40'.		
Sept. 19 . .	19 32 17.97	7.0
Lalande 37300+38° 5'.		
Sept. 17 . .	19 32 22.33	6.5
21 . .	22.29	6.0
B. A. C. 6730+49° 57'.		
Oct. 5 . .	19 32 26.81	
O. Arg. S. 19839−27° 36'.		
Sept. 18 . .	19 32 29.25	8.7
σ Draconis+69° 27'.		
Sept. 28 . .	19 32 36.63	5.0
30 . .	36.21	
θ Cygni+49° 55'.		
Oct. 5 . .	19 32 57.21	
c¹ Sagittarii−16° 36'.		
Oct. 16 . .	19 33 16.24	5.0
O. Arg. S. 19857−16 35.		
Oct. 16 . .	19 33 18.41	8.0
(*)−29° 9'		
Aug. 17 . .	19 33 43.44	7.0
Sept. 7 . .	43.62	7.5
(*)−32° 32'.		
Oct. 1 . .	19 34 15.85	8.5
Weisse 875−11° 37'.		
ug. 14 . .	19 34 46.81	6.7
Sept. 10 . .	46.81	7.5
(*)−36° 46'.		
ept 17 . .	19 34 54.15	7.5
21 . .	53.99	7.7
(*)−33° 56'.		
pt 29 . .	19 34 56.55	7.2
Weisse 886+11° 38'.		
ug. 14 . .	19 35 10.23	8.7
pt. 10 . .	10.16	8.5
O. Arg. S. 19902−26° 46.		
ug. 7 . .	19 36 27.30	8.0
12 . .	27.43	9.0
(*)−5° 52'.		
pt. 18 . .	19 36 28.86	9.2
(*)+13° 37'.		
pt. 30 . .	19 36 43.65	8.5
O. Arg. S. 19903−27° 7.		
pt. 23 . .	19 36 52.69	9.0
O. Arg. S. 19915−26° 55'.		
pt. 7 . .	19 37 7.48	8.8
16 . .	7.32	9.0

	h. m. s.	Mag.
(*)+39° 44'.		
Sept. 21 . .	19 37 42.16	7.5
29 . .	41.92	7.8
O. Arg. S. 19924−27° 1'.		
Oct. 1 . .	19 37 48.63	9.0
O. Arg. S. 19933−27° 35'.		
Aug. 17 . .	19 38 18.22	6.5
Sept. 17 . .	18.42	7.0
Lacaille 8216−42° 24'.		
Aug. 14 . .	19 39 19.42	8.0
Sept. 10 . .	19.67	8.0
O. Arg. S. 19944−27° 9'.		
Sept. 18 . .	19 39 23.42	8.5
19 . .	23.50	8.3
15 Cygni+37° 2'.		
Oct. 12 . .	19 39 35.35	5.5
16 . .	35.23	5.5
O. Arg. S. 19956−22° 9'.		
Sept. 7 . .	19 39 47.29	7.0
Oct. 1 . .	47.22	8.0
(*)+4° 41'.		
Sept. 30 . .	19 39 49.41	8.5
O. Arg. S. 19960−26° 59'.		
Sept. 28 . .	19 40 21.22	8.7
(*)−27° 25'.		
Aug. 17 . .	19 40 26.48	8.0
Sept. 16 . .	26.47	8.0
(*)−10° 19'.		
Sept. 29 . .	19 41 58.53	7.0
O. Arg. S. 19985−26° 42'.		
Sept. 21 . .	19 41 59.15	8 3
Weisse 1060+10° 22'.		
Aug. 7 . .	19 42 19.85	6.5
Sept. 30 . .	19.92	7.2
O. Arg. S. 19990−27° 37'.		
Sept. 16 . .	19 42 30.02	8.0
19 . .	29.93	8.8
(*)−22° 33'.		
Sept. 7 . .	19 42 31.73	9.0
10 . .	31.75	8.7
17 . .	31.83	8.5
O. Arg. S. 19998−26° 30'.		
Sept. 21 .	19 42 45.17	8.7
Oct. 1 . .	45.10	8.5
O. Arg. S. 19997−27° 41'.		
Sept. 10 . .	19 42 45.79	7.5
19 . .	45.83	8.4
Lalande 37753+38° 5'.		
Aug. 12 . .	19 42 50.98	5.5
Oct. 5 . .	50.78	

	h. m. s.	Mag.
(*)−10° 19'.		
Sept. 29 . .	19 42 58.53	
Lalande 37753+38° 5.		
Oct. 5 . .	19 43 50.78	
(*)−22° 29'.		
Sept. 7 . .	19 43 58.00	9.5
O. Arg. S. 20022−27° 11'.		
Aug. 14 . .	19 44 45.30	8.3
31 . .	45.30	7.8
(*)−27° 13'.		
Aug. 31 . .	19 44 49.29	9.0
O. Arg. S. 20039−27° 17'.		
Aug. 14 . .	19 45 26.03	7.5
31 . .	26.01	
O. Arg. S. 20046−27° 50'.		
Sept. 18 . .	19 46 0.29	9.0
O. Arg. S. 20049−27° 2'.		
Aug. 7 . .	19 46 12.47	7.3
17 . .	12.51	6.7
O. Arg. S. 20051−26° 51'.		
Sept. 19 . .	19 46 27.41	8.2
O. Arg. S. 20053−27° 42'.		
Sept. 29 . .	19 46 31.42	9.2
30 . .	31.26	9.0
O. Arg. S. 20055−17° 45'.		
Sept. 21 . .	19 46 40.03	8.5
Weisse 1160−14° 11'.		
Oct. 1 . .	19 46 44.00	8.0
O. Arg. S. 20058−27° 27'.		
Oct. 12 . .	19 47 8.57	8.3
16 . .	8.46	8.3
(*)−19° 39.		
Sept. 28 . .	19 47 49.50	7.0
(*)−27° 3'.		
Sept. 17 . .	19 48 21.00	8.3
Weisse 1205−9° 6'.		
Sept. 16 . .	19 48 33.07	9.0
19 . .	32.95	8.5
O. Arg. S. 20078−27° 57'.		
Aug. 31 . .	19 48 35.24	8.2
Sept. 7 . .	35.23	8.3
Weisse 1208−9° 6'.		
Sept. 16 . .	19 48 36.46	8.5
19 . .	36.41	8.0
O. Arg. S. 20096−16° 58.		
Aug. 14 . .	19 44 22.59	8.0
21 . .	22.65	8.0

	h. m. s.	Mag.
O. Arg. S. 20095−25° 24'.		
Sept. 29 . .	19 49 26.04	8.3
(*)−27° 52'.		
Oct. 5 . .	19 49 26.86	9.5
O. Arg. S. 20100−27° 52'.		
Sept. 30 . .	19 49 35.04	9.5
Oct. 5 . .	35.04	9.0
O. Arg. S. 20101−25° 31'.		
Sept. 29 . .	19 49 35.86	8.0
Lalande 38037+34° 33'.		
Aug. 7 . .	19 50 1.43	7.0
Lalande 38039+36° 39'.		
Sept. 28 . .	19 50 3 35	6.0
Oct. 12 . .	3.32	7.0
Lalande 38037+34° 33'.		
Aug. 17 . .	19 50 6.74	7.5
O. Arg. S. 20101−25° 31'.		
Sept. 29 . .	19 50 35.86	
O. Arg. S. 20113−18° 58'.		
Sept. 18 . .	19 50 42.36	8.5
O. Arg. S. 20116−22° 36'.		
Sept. 17 . .	19 50 51.39	7.0
26 . .	51.35	7.8
O. Arg. S. 20126−22° 37'.		
Sept. 17 . .	19 51 20.78	8.0
Oct. 16 . .	20.69	8.5
Lacaille 8293−38° 3'.		
Aug. 14 . .	19 51 37.74	
Sept. 19 . .	37.88	5.5
B. A. C. 6850−22° 36.		
Sept. 17 . .	19 51 51.82	6.5
(*)−22° 28'.		
Sept. 29 . .	19 52 18.03	9.0
Lacaille 8302−32° 31.		
Aug. 31 . .	19 52 22.91	6.7
(*)−23° 7'.		
Oct. 5 . .	19 52 53.19	9.0
O. Arg. S. 20145−22° 59'.		
Sept. 30 . .	19 53 4.84	7.7
Lalande 38175+37° 46.		
Sept. 16 . .	19 53 10.45	7.7
21 . .	10.58	6.0
B. A. C. 6869+64° 22'.		
Oct. 1 . .	19 53 30.74	6.5
12 . .	30.93	6.5
Weisse 1319−14° 19.		
Sept. 18 . .	19 53 48.68	7.8

Star	Date	h.	m.	s.	Mag.
WEISSE 1320—14° 19′.	Sept. 18	19	53	49.99	9.2
LALANDE 38202 (1st *)+37° 45′.	Aug. 7	19	53	53.11	
	Sept. 16			52.92	6.5
	21			52.93	5.5
LALANDE 38202 (2d *)+37° 45′.	Sept. 21	19	53	53.24	6.5
(*)—22° 28′.	Oct. 16	19	53	56.61	8.0
(*)+34° 57′.	Aug. 17	19	54	56.07	8.5
	Sept. 28			56.22	8.3
(*)+34° 56′.	Sept. 28	19	55	2.71	7.3
O. ARG. S. 20175—18° 32′.	Oct. 5	19	55	19.38	8.3
O. ARG. S. 20180—18° 36′.	Oct. 5	19	55	43.29	7.0
(*)+34° 55′.	Aug. 17	19	56	9.62	7.0
(*)+36° 44′.	Aug. 7	19	56	10.09	8.0
O. ARG. S. 20192—26° 42′.	Sept. 29	19	56	23.05	7.8
O. ARG. S. 20194—28° 7′.	Aug. 31	19	56	26.27	7.0
	Sept. 30			26.43	7.5
(*)+36° 45′.	Aug. 7	19	56	28.71	6.5
	Oct. 12			28.70	7.0
O. ARG. S. 20200—22° 33′.	Oct. 1	19	56	44.92	7.0
	16			44.96	7.2
O. ARG. S. 20222—29° 31′.	Sept. 18	19	58	14.39	9.0
	21			14.49	7.7
(*)—19° 5′.	Sept. 28	19	58	31.82	8.0
	29			31.83	7.5
LACAILLE 8341—36° 2′.	Sept. 30	19	59	7.91	7.0
	Oct. 5			7.79	6.5
(*)+36° 38′.	Oct. 12	19	59	34.19	8.3
(*)—39° 11′.	Aug. 17	19	59	39.42	8.3

Star	Date	h.	m.	s.	Mag.
(*)+38° 5′.	Oct. 1	20	0	25.27	6.5
	13			25.27	6.5
(*)—16° 18′.	Sept. 16	20	0	32.77	8.0
	18			32.76	8.8
(*)—35° 37′.	Aug. 7	20	1	32.11	
	Oct. 12			32.09	6.0
(*)—16° 18′.	Aug. 31	20	1	43.47	9.0
(*)+33° 6′.	Oct. 24	20	1	44.03	8.3
(*)+38° 43′.	Aug. 12	20	1	45.45	6.5
	Sept. 17			45.14	7.0
(*)—19° 48′.	Sept. 7	20	1	45.65	8.2
	29			45.46	8.5
O. ARG. S. 20274—18° 44′.	Aug. 24	20	2	12.63	7.3
	Sept. 28			12.70	7.5
O. ARG. S. 20276—21° 55′.	Aug. 17	20	2	16.28	8.0
	Sept. 30			16.31	8.2
	Oct. 16			16.33	
LALANDE 38597+34° 3′.	Oct. 23	20	2	42.90	7.0
B. A. C. 6923—19° 46′.	Sept. 16	20	2	53.21	7.0
	Oct. 5			53.20	7.0
(*)+37° 44′.	Oct. 1	20	3	35.10	7.5
	13			35.15	7.0
(*)+37° 45′.	Sept. 17	20	3	37.80	7.0
	Oct. 1			37.81	7.3
	13			37.85	7.0
O. ARG. S. 20287—24° 37′.	Sept. 21	20	3	41.97	7.8
	Oct. 24			41.99	8.3
(*)—14° 15′.	Sept. 29	20	4	13.41	9.0
LACAILLE 8369—38° 50′.	Aug. 7	20	4	56.57	6.5
(*)—14° 4′.	Aug. 17	20	4	56.70	9.0
	Sept. 7			56.75	9.0
O. ARG. S. 20309—25° 14′.	Sept. 30	20	4	59.04	8.0

Star	Date	h.	m.	s.	Mag.
(*)—14° 5′.	Aug. 17	20	5	20.53	9.0
LACAILLE 8373—34° 31′.	Oct. 16	20	5	21.55	6.5
(*)—14° 3′.	Sept. 7	20	5	54.00	9.0
WEISSE 101—14° 4′.	Aug. 17	20	6	3.93	8.5
WEISSE (2) 206+20° 46′.	Oct. 1	20	6	22.35	7.3
	12			22.38	7.5
(*)+16° 18′.	Oct. 5	20	6	22.55	8.3
(*)+38° 29′.	Sept. 17	20	6	55.64	7.0
	21			55.60	6.5
(*)+38° 21′.	Oct. 13	20	7	9.61	7.5
O. ARG. S. 20343—17° 15′.	Sept. 28	20	7	48.86	7.0
(*)—24° 35′.	Sept. 30	20	7	49.70	9.0
	Oct. 23			49.78	9.0
WEISSE 145—13° 47′.	Sept. 29	20	7	52.04	6.0
	Oct. 26			52.04	7.5
WEISSE (2) 304+38° 26′.	Sept. 17	20	8	39.28	6.5
	Oct. 1			39.40	6.0
WEISSE (2) 306+38° 21′.	Aug. 31	20	8	40.02	7.5
(*)+38° 22′.	Aug. 31	20	8	52.90	8.7
GR. C. 1810+16° 23′.	Oct. 5	20	8	57.01	8.2
O. ARG. S. 20358—17° 16′.	Sept. 28	20	8	57.39	8.5
WEISSE (2) 329+38° 46′.	Sept. 7	20	9	13.28	6.0
	Oct. 12			13.28	7.0
(*)—13° 57′.	Oct. 24	20	9	13.83	9.0
(*)+16° 19′.	Oct. 5	20	9	13.96	8.3
(*)+16° 19′.	Oct. 5	20	10	40.51	9.2

Star	Date	h.	m.	s.	Mag.
α² CAPRICORNI—12° 57′.	Aug. 12	20	10	50.43	
	17			50.42	
	Sept. 18			50.40	
	19			50.40	
RUMKER 5156+16° 22′.	Oct. 16	20	11	0.01	
	26		10	59.89	
B. A. C. 6978+29° 23′.	Oct. 23	20	11	3.16	
	28			3.12	
O. ARG. S. 20384—24° 17′.	Sept. 21	20	11	10.45	
	29			10.31	
WEISSE (2) 398+38° 29′.	Oct. 13	20	11	19.96	
(*)+36° 39′.	Sept. 17	20	11	30.69	
WEISSE (2) 412+36° 39′.	Sept. 7	20	11	37.04	
	17			36.99	
σ CAPRICORNI—19° 33′.	Sept. 30	20	11	53.27	
	Oct. 24			53.23	
(*)—19° 33′.	Sept. 30	20	11	53.64	
	Oct. 24			53.50	
O. ARG. S. 20398—29° 32′.	Sept. 28	20	12	14.21	
(*)—19° 31′.	Sept. 18	20	12	20.30	
(*)—29° 35′.	Oct. 1	20	12	25.84	
B. A. C. 6984—29° 36′.	Oct. 1	20	12	27.13	
O. ARG. S. 20406—25° 37′.	Aug. 31	20	12	38.25	
B. A. C. 6987—20° 3′.	Oct. 28	20	12	56.87	
34 CYGNI+37° 38′.	Sept. 10	20	12	59.60	
	Oct. 12			59.83	
(*)—19° 30′.	Sept. 18	20	13	2.96	
WEISSE 296—14° 5′.	Sept. 29	20	13	28.61	
	Oct. 26			28.75	
(*)+19° 31′.	Aug. 17	20	14	2.99	

	h.	m.	s.	Mag.
(*)+37° 52'.				
Sept. 19 . .	20	14	4.59	6.5
21 . .			4.70	6.0
B. A. C. 7001+38° 35'.				
Sept. 7 . .	20	14	13.45	6.0
Oct. 13 . .			13.59	8.0
(*)+36° 41'.				
Sept. 17 . .	20	14	50.32	8.5
Oct. 17 . .			50.40	8.5
(*)−33° 28'.				
Oct. 23 . .	20	14	51.84	7.3
B. A. C. 7006+36° 43'				
Sept. 17 . .	20	14	56.29	6.0
Oct. 17 . .	20	14	56.47	6.5
(*)−25° 25'.				
Sept. 30 . .	20	15	16.30	8.5
Oct. 5 . .			16.24	7.7
(*)−24° 54'.				
Oct. 1 . .	20	15	24.51	9.0
24 . .			24.60	9.0
(*)−13° 38'.				
Aug. 14 . .	20	15	26.49	8.8
Oct. 23 . .			26.70	9.0
(*)−21° 15'.				
Aug. 31 . .	20	15	28.79	9.0
Oct. 26 . .			28.81	9.0
(*)−19° 29'.				
ug. 17 . .	20	15	33.73	9.0
Weisse 359−13° 37'.				
ug. 14 . .	20	15	49.33	9.0
et. 23 . .			49.24	9.0
Weisse 369−13° 40'.				
ug. 14 . .	20	16	8.27	9.0
(*)−19° 9'.				
ept. 18 . .	20	16	26.96	9.2
Lalande 39208−0° 52'.				
ct. 13 . .	20	16	38.01	7.5
B. A. C. 7014+4° 55'.				
pt. 10 . .	20	16	44.11	5.5
(*)−13° 40'.				
ug. 14 . .	20	16	49.33	
Weisse 387−13° 44'.				
ug. 14 . .	20	16	52.43	6.5
(*)−19° 11'.				
pt. 7 . .	20	17	3.49	9.0
17 . .			3.43	9.2

	h.	m.	s.	Mag.
(*)−23° 36'.				
Sept. 19 . .	20	17	28.62	7.7
Oct. 23 . .			28.56	8.0
O. Arg. S. 20482−23° 56'.				
Aug. 31 . .	20	17	39.80	8.0
Sept. 30 . .			40.03	8.3
Weisse (2) 641+38° 48'.				
Sept. 17 . .	20	18	9.37	8.3
21 . .			9.37	8.3
(*)−33° 45'.				
Sept. 29 . .	20	18	12.86	8.5
Oct. 24 . .			13.04	8.5
Weisse (2) 643+38° 48'.				
Sept. 17 . .	20	18	12.95	7.0
21 . .			12.93	7.0
Lacaille 8439−32° 45'.				
Oct. 1 . .	20	18	15.72	7.0
5 . .			15.59	6.5
O. Arg. S. 20501−21° 14'.				
Aug. 17 . .	20	19	17.05	
Oct. 16 . .			17.02	8.5
17 . .			16.86	8.8
O. Arg. S. 20503−22° 59.				
Oct. 26 . .	20	19	22.10	8.5
π Capricorni−18° 38'.				
Oct. 23 . .	20	19	52.67	
Nov. 3 . .			52.67	
Lacaille 8450−34° 51.*				
Sept. 30 . .	20	20	15.77	6.0
(*)−35° 47'.				
Sept. 18 . .	20	20	29.48	9.0
Oct. 1 . .			29.57	8.5
Weisse 498−13° 35'.				
Sept. 7 . .	20	21	10.61	7.5
10 . .			10.64	7.5
Weisse 499−13° 35'.				
Sept. 7 . .	20	21	12.13	7.5
10 . .			12.11	7.5
(*)+38° 53'.				
Aug. 14 . .	20	22	30.94	8.5
Lalande 39496+38° 54'.				
Aug. 31 . .	20	23	39.37	6.5
Sept. 17 . .			39.44	7.0
(*)+38° 56'.				
Aug. 31 . .	20	23	41.06	8.0
Sept. 17 . .			41.17	8.0
O. Arg. S. 20574−22° 59.'				
Sept. 18 . .	20	24	17.38	9.2
19 . .			17.38	9.0

	h.	m.	s.	Mag.
(*)−23° 1'.				
Sept. 18 . .	20	24	22.12	9.0
19 . .			22.05	9.0
Lacaille 8471−41° 58'.				
Sept. 30 . .	20	24	40.67	6.5
B. A. C. 7079 (1st *)+10° 48'.				
Oct. 13 . .	20	24	59.64	7.0
26 . .			59.39	7.0
B. A. C. 7079 (2d *)+10° 48'.				
Oct. 13 . .	20	25	0.54	
26 . .			0.40	7.0
Lacaille 8475−41° 0'.				
Oct. 1 . .	20	25	7.85	7.0
Weisse 610−8° 38'.				
Sept. 10 . .	20	25	26.08	7.5
Oct. 5 . .			25.97	7.5
(*)−21° 20'.				
Oct. 23 . .	21	25	54.17	8.0
24 . .			54.18	8.5
O. Arg. S. 20607−23° 41'.				
Sept. 29 . .	20	26	27.96	8.0
Oct. 24 . .			27.96	8.5
(*)−0° 5'.				
Sept. 17 . .	20	26	38.46	8.2
ε Delphini+10° 51'.				
Aug. 14 . .	20	27	0.11	
26 . .			0.13	
Sept. 7 . .			0.16	
21 . .			0.02	
Oct. 17 . .			0.08	
28 . .			0.09	
O. Arg. S. 20621−32° 2				
Sept. 18 . .	20	27	27.68	8.8
19 . .			27.65	
(*)−0° 3'.				
Aug. 31 . .	20	27	42.04	9.0
Oct. 23 . .			42.11	9.0
(*)+37° 24'.				
Oct. 1 . .	20	29	28.74	7.0
17 . .			28.54	7.0
(*)−33° 55'.				
Sept. 30 . .	20	29	43.14	7.7
Weisse 729 (1st *)−13° 11'.				
Sept. 10 . .	20	29	43.97	8.3
29 . .			43.72	8.3
Weisse 729 (2d *)−13° 11'.				
Sept. 10 . .	20	29	44.16	7.7
29 . .			43.89	7.3
Weisse 743+2° 1'.				
Oct. 12 . .	20	30	8.37	8.0

	h.	m.	s.	Mag.
(*)−19° 14'.				
Sept. 18 . .	20	30	22.11	8.8
Oct. 5 . .			21.97	8.8
(*)+27° 28'.				
Oct. 23 . .	20	30	28.55	9.0
B. A. C. 7124+72° 5'.				
Oct. 26 . .	20	30	32.67	
Nov. 3 . .			31.91	6.0
(*)−19° 15'.				
Sept. 18 . .	20	30	45.32	8.5
Oct. 5 . .			45.17	8.5
B. A. C. 7116−21° 27'.				
Aug. 31 . .	20	30	52.69	6.3
Sept. 17 . .			52.63	
(*)−21° 47'.				
Oct. 28 . .	20	30	58.08	9.0
(*)−33° 38'.				
Aug. 26 . .	20	31	0.33	7.0
Oct. 16 . .			0.31	7.0
Weisse 767−13° 6'.				
Aug. 17 . .	20	31	10.82	8.0
Oct. 12 . .			10.89	8.3
(*)+27° 28'.				
Oct. 23 . .	20	31	20.87	8.3
Weisse 779−13° 7'.				
Aug. 14 . .	20	31	37.18	8.0
Oct. 12 . .			37.19	8.3
O. Arg. S. 20697−21° 24'.				
Oct. 1 . .	20	32	5.21	7.5
24 . .			5.33	8.0
(*)+37° 57'.				
Sept. 19 . .	20	32	23.15	8.5
28 . .			23.42	8.5
Lalande 39885+37° 53'.				
Sept. 19 . .	20	32	29.95	6.0
28 . .			30.12	6.0
O. Arg. S. 20709−21° 25'.				
Oct. 1 . .	20	32	38.96	8.5
24 . .			39.01	9.0
1 Aquarii+0° 1'.				
Oct. 13 . .	20	32	45.03	6.0
B. A. C. 7136−27° 6'.				
Sept. 29 . .	20	32	47.69	6.0
30 . .			47.78	6.0
(*)+38° 5'.				
Nov. 3 . .	20	33	18.28	8.0
O. Arg. S. 20728−19° 14'.				
Oct. 5 . .	20	33	22.91	7.7
16 . .			23.14	

	h. m. s.	Mag.
Weisse (2) 1140 (1st *)+38° 11′.		
Aug. 26 . .	20 33 44.64	8.3
Oct. 17 . .	44.69	8.5
Weisse (2) 1140 (2d *)+38° 11′.		
Oct. 17 . .	20 33 45.39	7.3
(*)−9° 6.		
Sept. 10 . .	20 33 54.13	7.5
18 . .	54.11	8.0
Weisse 851 0° 0′.		
Sept. 21 . .	20 34 7.10	8.3
B. A. C. 7155−40° 1.		
Aug. 31 . .	20 34 21.68	5.5
B. A. C. 7169+80° 59′.		
Oct. 23 . .	20 34 56.16	6.0
26 . .	55.30	
O. Arg. S. 20702−19° 58′.		
Aug 17 . .	20 35 30.26	9.0
Sept. 17 . .	30.23	8.0
75 Draconis+80° 58′.		
Oct. 23 . .	20 36 17.23	5.5
26 . .	16.57	
Weisse 924 0° 0.		
Aug. 31 . .	20 36 53.48	8.2
Sept. 10 . .	53.54	8.0
(*)−35° 38′.		
Sept. 29 . .	20 36 57.89	5.5
30 . .	57.95	5.5
(*)+34° 58.		
Sept. 19 . .	20 37 4.35	8.3
Lalande 40043 +34° 59.		
Sept. 19 .	20 37 16.58	6.0
28 . .	16.79	6.0
B. A. C. 7172−4° 23′.		
Aug. 26 . .	20 37 23.39	7.2
Sept. 18 . .	23.38	6.5
O. Arg. S. 20805−24° 24′.		
Oct. 16 . .	20 37 39.66	
B. A. C. 7175−39° 40′.		
Oct. 1 . .	20 37 51.19	5.0
5 . .	51.13	5.5
17 . .	50.97	5.5
O. Arg. S. 20812−21° 19.		
Oct. 24 . .	20 38 12.92	9.0
O. Arg. S. 20819−24° 12′.		
Sept. 17 . .	20 38 34.35	8.2
O. Arg. S. 20828−27° 42.		
Sept. 21 . .	20 38 52.04	7.5
Nov. 3 . .	51.85	8.0

	h. m. s.	Mag.
O. Arg. S. 20833−27° 39′.		
Sept. 21 . .	20 38 57.07	7.0
Nov. 3 . .	56.78	8.0
(*)−35° 38.		
Sept. 18 . .	20 39 1.75	8.5
29 . .	1.82	7.5
30 . .	1.88	7.5
O. Arg. S. 20839−19° 55′.		
Aug. 31 . .	20 39 11.31	7.0
Sept. 10 . .	11.32	7.5
(*)−33° 36′.		
Oct. 1 . .	20 40 40.84	8.3
5 . .	40.80	8.5
O. Arg. S. 20859−17° 14′.		
Aug. 17 . .	20 40 53.74	7.0
Oct. 26 . .	53.67	7.3
O. Arg. S. 20857−22° 33′.		
Oct. 23 . .	20 40 54.95	8.5
24 . .	55.10	8.8
Weisse 1022−12° 57′.		
Oct. 13 .	20 41 6.24	8.5
28 . .	6.36	7.7
Lacaille 8574−30° 40′.		
Oct. 12 . .	20 41 20.66	7.5
Weisse (2) 1357+33° 54′.		
Sept. 17 . .	20 41 36.00	8.3
Nov. 3 . .	35.91	8.5
Weisse (2) 1373+33° 54.		
Sept. 17 . .	20 41 59.29	6.0
Nov. 3 . .	59.24	
B. A. C. 7210 (1st *)−27° 51.		
Aug. 26 . .	20 42 17.36	7.0
Sept. 19 . .	17.38	7.0
O. Arg. S. 20884−22° 23′.		
Sept. 30 . .	20 42 17.86	8.0
B. A. C. 7210 (2d *)−27° 51′.		
Aug. 26 . .	20 42 18.76	
Sept. 19 . .	18.76	8.5
λ Cygni+36° 1′.		
Sept. 21 . .	20 42 20.56	5.0
28 . .	20.69	
B. A. C. 7225−27° 44.		
Oct. 12 . .	20 42 46.75	6.5
Weisse (2) 1407−38° 48′.		
Oct. 17 . .	20 43 5.83	7.7
Weisse 1082−7° 57′.		
Sept. 29 . .	20 43 6.89	8.2
Oct. 28 . .	7.09	8.8

	h. m. s.	Mag.
B. A. C. 7221−13° 2′.		
Oct. 13 . .	20 43 31.66	8.0
(*)−17° 47.		
Oct. 1 . .	20 43 36.80	8.0
23 . .	36.83	8.2
Lacaille 8594−30° 16.		
Oct. 26 . .	20 43 45.82	6.5
Lacaille 8596−29° 55.		
Oct. 5 . .	20 43 46.61	6.0
24 . .	46.69	7.3
B. A. C. 7225−27° 44′.		
Sept. 19 . .	20 43 46.64	
(*)−21° 32′.		
Sept. 10 . .	20 43 58.51	8.3
Lalande 40277+35° 5.		
Oct. 16 . .	20 44 4.49	6.5
(*)+38° 48′.		
Oct. 17 . .	20 44 15.11	7.5
(*)−21° 31.		
Sept. 18 . .	20 44 18.46	8.5
O. Arg. S. 20922−18° 3.		
Sept. 21 . .	20 45 36.34	8.0
Nov. 3 . .	35.89	8.2
μ Aquarii−9° 28′.		
Aug. 17 . .	20 45 38.42	
31 . .	38.39	
Sept. 17 . .	38.36	
28 . .	38.33	
29 . .	38.36	
Oct. 26 . .	38.34	
30 . .	38.37	
B. A. C. 7242−12° 4′.		
Oct. 24 . .	20 45 38.77	7.0
(*)+37° 56′.		
Oct. 28 . .	20 46 6.77	7.5
(*)−41° 4′.		
Oct. 23 . .	20 46 45.04	8.0
O. Arg. S. 20937−28° 25′.		
Oct. 5 . .	20 46 47.71	7.3
(*)+37° 56′.		
Oct. 12 . .	20 47 6.92	7.0
Lalande 40400+39° 0.		
Sept. 7 . .	20 47 19.00	6.0
18 . .	19.21	6.5
O. Arg. S. 20951−15° 47.		
Aug. 26 . .	20 47 41.17	7.0
Sept. 10 . .	41.17	
O. Arg. S. 20937−28° 25.		
Oct. 5 . .	20 47 47.71	

	h. m. s.	M
(*)−19° 29.		
Oct. 17 . .	20 48 15.97	
(*)−38° 51.		
Sept. 7 . .	20 48 25.03	
18 . .	25.20	
B. A. C. 7259+43° 53		
Aug. 31 . .	20 48 38.73	
Sept. 19 . .	3[illegible]	
(*)−19° 29.		
Oct. 17 . .	20 48 41.04	
24 . .	41.35	
(*)+43° 53.		
Sept. 19 . .	20 49 17.27	
Lalande 40494+36° 34		
Sept. 17 . .	20 49 37.31	
28 . .	37.34	
(*)+36° 44.		
Sept. 21 . .	20 49 38.36	
Oct. 23 . .	38.27	
(*)−39° 29.		
Sept. 29 . .	20 49 46.55	
30 . .	46.[illegible]	
(*)−0° 2.		
Aug. 17 . .	20 50 14.30	
Sept. 10 . .	14.25	
(*)+82° 34.		
Oct. 26 . .	20 50 22.53	
Weisse 1269−0° 4		
Sept. 10 . .	20 50 31.44	
(*)+36° 44.		
Nov. 3 . .	20 50 35.36	
(*)−12° 53.		
Aug. 26 . .	20 50 57.54	
Lacaille 8628−43° 31		
Oct. 5 . .	20 51 20.43	
Piazzi 401+43° 52′.		
Oct. 16 . .	20 51 22.06	
Weisse 1291+13° 52′.		
Aug. 31 . .	20 51 24.59	
Sept. 18 . .	24.55	
(*)−31° 1.		
Oct. 1 . .	20 51 30.95	
12 . .	30.79	
O. Arg. S. 21007−27° 31		
Sept. 7 . .	20 51 47.52	
Oct. 17 . .	47.60	
Lacaille 8633−39° 14.		
Sept. 19 . .	20 52 44.12	

(*)−14° 1′.

	h.	m.	s.	Mag.
Aug. 17	20	53	4.48	7.5
Sept. 17			4.32	

(*)−35° 41′.

Sept. 21	20	53	7.11	7.0
30			7.08	7.3

Lacaille 8642−33° 23′.

Sept. 28	20	53	25.07	7.0

O. Arg. S. 21034−28° 13.′

Sept. 29	20	53	35.25	

Lacaille 8638−43° 31′.

Aug. 31	20	53	40.63	7.0

Weisse 1370−14° 2′.

Aug. 17	20	53	58.33	6.3
Sept. 17			58.21	

(*)−12° 58′.

Oct. 5	20	54	55.33	9.5
17			55.26	9.5

(*)−12° 58′.

Oct. 5	20	55	12.93	10.0

f^1 Cygni+47° 1′.

Oct. 1	20	55	24.51	5.0
26			24.13	

Lacaille 8657−43° 37′.

Sept. 19	20	55	46.94	
Oct. 28			47.11	7.0

(*)+37° 8′.

Aug. 26	20	55	48.24	7.5
Sept. 7			48.06	

O. Arg. S. 21063−16° 9′.

Sept. 10	20	57	17.09	7.7

B. A. C. 7312−17° 41′.

Sept. 29	20	57	33.32	6.5
Oct. 24			33.35	7.0

B. A. C. 7320+38° 7′.

Aug. 7	20	58	2.24	6.0
26			2.23	6.5

(*)+37° 38′.

Sept. 21	20	58	13.11	6.5
28			13.17	7.0

Lacaille 8686−39° 13′.

Sept. 19	20	59	13.44	6.0
Oct. 28			13.65	6.5

O. Arg. S. 21115−16° 6′.

Sept. 7	20	59	34.42	8.5
10			34.36	7.2

B. A. C. 7332+52° 46′.

Oct. 12	20	59	49.47	6.0
13			49.44	

O. Arg. S. 21129−22° 52′.

	h.	m.	s.	Mag.
Sept. 29	21	0	26.00	7.2

O. Arg. S. 21138−17° 15′.

Sept. 17	21	0	56.77	7.2
18			56.80	7.5

(*)+35° 53′.

Oct. 17	21	1	24.47	9.5

(*)+35° 53′.

Oct. 5	21	2	2.81	10.0
17			3.01	9.2

O. Arg. S. 21154−23° 9′.

Aug. 31	21	2	10.32	8.5
Sept. 18			10.17	8.5
19			10.22	8.6

Lalande 41011+28° 5

Oct. 12	21	2	36.72	8.0
28			36.66	7.3

O. Arg. S. 21189 (1st *)−23° 38′.

Aug. 26	21	4	2.91	8.0
Sept. 10			2.94	8.5

O. Arg. S. 21189 (2d *)−23° 38′.

Aug. 26	21	4	3.43	8.0
Sept. 10			3.46	7.5

Lalande 41086+38° 11′.

Aug. 17	21	4	3.52	7.5
Sept. 7			3.17	6.5

O. Arg. S. 21196−24° 39′.

Oct. 24	21	4	29.26	7.5

Lacaille 8719−39° 58′.

Aug. 31	21	4	43.42	5.0
Sept. 17			43.28	5.0

(*)−35° 40′.

Sept. 19	21	5	10.48	8.3
29			10.41	8.3

(*)−12° 27′.

Sept. 21	21	5	15.53	7.5
Oct. 17			15.34	8.5

(*)−12° 23′.

Sept. 21	21	5	21.19	7.5
Oct. 17			20.87	8.8

(*)−12° 21′.

Oct. 17	21	5	21.74	8.5

(*)−25° 24′.

Oct. 26	21	5	43.78	7.0

(*)−25° 25′.

Oct. 26	21	5	53.50	8.3

(*)+35° 46′.

Sept. 7	21	5	50.02	6.0
28			50.22	6.2

Lacaille 8740−22° 45′.

	h.	m.	s.	Mag.
Oct. 1	21	6	33.34	6.0
12			33.27	6.0

Lacaille 8737−41° 4′.

Aug. 31	21	6	50.88	7.0

(*)+38° 2′.

Oct. 24	21	7	22.53	7.0
Nov. 3			22.53	7.7

ζ Cygni+29° 42′.

Sept. 10	21	7	24.22	
18			24.17	
Oct. 5			24.23	

Weisse (2) 154+35° 16′.

Aug. 17	21	7	37.61	7.0
Oct. 16			37.86	7.0

(*)−15° 40′.

Aug. 26	21	7	58.39	7.5
Sept. 17			58.33	7.5

B. A. C. 7373+36° 5′.

Oct. 26	21	8	12.80	6.5

(*)−15° 49′.

Aug. 26	21	8	14.99	8.7
Sept. 17			15.08	8.3

29 Capricorni−15° 43′.

Sept. 29	21	8	32.93	5.0

Lalande 41269+29° 21′.

Oct. 17	21	8	37.05	7.3
Nov. 3			36.99	6.0

Weisse 156−9°.40.

Sept. 19	21	8	50.02	7.0
Oct. 1			50.12	6.5
12			50.03	6.5

Lacaille 8747−39° 36′.

Aug. 31	21	9	2.15	7.5

(*)+38° 42′.

Sept. 21	21	9	17.78	6.0
28			17.95	6.0

τ Cygni+37° 29′.

Oct. 16	21	9	36.18	5.5
28			36.47	5.0

(*)−22° 4′.

Oct. 5	21	10	9.16	8.0

(*)+36° 39′.

Sept. 10	21	10	19.13	

Lalande 41341+36° 41′.

Aug. 17	21	10	21.55	7.3
Sept. 10			21.45	

Lacaille 8764−41° 36′.

Oct. 24	21	11	9.19	7.0

15 Aquarii−5° 4′.

	h.	m.	s.	Mag.
Sept. 18	21	11	21.83	5.5
29			21.72	5.5

O. Arg. S. 21290−22° 35′.

Aug. 26	21	11	25.81	8.2
31			25.91	7.5

Weisse 239−13° 36′.

Oct. 1	21	12	13.80	6.5

θ Microscopii−41° 22′.

Sept. 19	21	12	26.16	5.0

Lalande 41419+38° 40′.

Sept. 21	21	12	28.90	6.0
28			29.02	6.5

(*)−21° 23′.

Aug. 26	21	13	39.66	7.5
31			39.68	7.0

Weisse (2) 310+19° 17′.

Oct. 12	21	14	7.14	8.3

Weisse (2) 322+38° 14′.

Aug. 17	21	14	10.67	6.3
Sept. 10			10.50	7.0

16 Aquarii−5° 10′.

Sept. 17	21	14	15.35	5.5
29			15.25	5.5

Weisse (2) 328+38° 14′.

Aug. 17	21	14	27.90	
Sept. 10			27.66	8.5

Weisse (2) 325+19° 17′.

Oct. 1	21	14	38.17	7.5

Weisse (2) 327+18° 17′.

Oct. 17	21	14	44.45	8.0
23			44.33	7.7

B. A. C. 7417+58° 4′.

Sept. 18	21	15	39.71	5.5
28			40.00	5.0

(*)+38° 21′.

Sept. 10	21	16	1.37	8.0
Oct. 5			1.45	8.0
24			1.45	7.5

ι Pegasi+19° 15′.

Oct, 12	21	16	4.49	
16			4.60	
Nov. 6			4.49	

Lalande 41544−12° 38′.

Aug. 31	21	16	37.77	8.0

B. A. C. 7424−23° 19′.

Sept. 19	21	16	41.13	5.7
21			41.13	5.7

33 Capricorni−21° 25′.

Aug. 26	21	16	46.94	5.5
Sept. 17			46.97	5.5

	h. m. s.	Mag.
LALANDE 41550—23° 51'.		
Sept. 29 . .	21 16 54.34	6.5
WEISSE 346—11° 9'.		
Oct. 1 . .	21 17 13.01	8.5
LACAILLE 8804—35° 25'.		
Oct. 26 . .	21 17 18.00	6.5
LALANDE 41614+38° 12'.		
Oct. 17 . .	21 17 22.60	8.0
24 . .	22.45	7.0
LALANDE 41624+38° 3'.		
Aug. 17 . .	21 17 35.61	6.0
Nov. 3 . .	35.47	
LALANDE 41627+38° 9'.		
Oct. 17 . .	21 17 43.41	7.5
24 . .	43.23	7.0
(*)—23° 51'.		
Oct. 23 . .	21 17 49.30	8.5
(*)—25° 28'.		
Oct. 26 . .	21 17 51.45	9.0
Nov. 6 . .	51.36	9.0
WEISSE (2) 433+36° 47'.		
Sept. 5 . .	21 18 32.54	6.0
Oct. 5 . .	32.69	6.5
O. ARG. S. 21378—25° 3'.		
Aug. 31 . .	21 18 37.34	7.3
(*)+38° 1'		
Aug. 17 . .	21 18 38.40	8.0
O. ARG. S. 21382—25° 3'.		
Aug. 31 . .	21 18 48.78	9.0
(*)—22° 24'.		
Aug. 26 . .	21 18 49.73	7.3
Sept. 28 . .	49.70	8.0
(*)+36° 7'.		
Oct. 28 . .	21 18 57.24	7.0
(*)+38° 3'.		
Aug. 17 . .	21 19 20.72	8.5
(*)+36° 6'.		
Oct. 28 . .	21 19 28.21	6.0
(*)+36° 8'.		
Sept. 18 . .	21 19 57.27	7.5
19 . .	57.31	7.0
21 . .	57.31	7.2
(*)+36° 4'.		
Sept. 19 . .	21 20 2.06	8.5
WEISSE 453—12° 14'.		
Sept. 29 . .	20 20 35.50	6.0

	h. m. s.	Mag.
(*)+35° 16'.		
Sept. 10 . .	20 20 56.39	7.0
Oct. 1 . .	56.66	7.0
WEISSE 465—12° 8'.		
Sept. 29 . .	21 21 11.36	6.3
b CAPRICORNI—22° 23'.		
Aug. 26 . .	21 21 18.45	5.5
Sept. 28 . .	18.28	4.5
LACAILLE 8824—44° 39'.		
Nov. 6 . .	21 21 46.54	8.0
70 CYGNI+36° 33'.		
Sept. 7 . .	21 22 3.18	5.5
17 . .	3.13	6.5
21 . .	3.26	
(*)—23° 49'.		
Oct. 23 . .	21 22 27.22	8.3
26 . .	27.08	8.5
LALANDE 41789+34° 50'.		
Oct. 12 . .	21 22 30.31	7.0
17 . .	30.51	7.3
(*)—23° 47'.		
Oct. 26 . .	21 22 38.35	9.0
B. A. C. 7463—19° 41'.		
Oct. 5 . .	21 22 41.62	6.5
24 . .	41.67	7.0
B. A. C. 7466—25° 46'.		
Nov. 3 . .	21 22 55.08	7.0
(* 39) WASHINGTON—16° 26'.		
Aug. 26 . .	21 23 47.83	9.5
Nov. 3 . .	47.62	9.0
O. ARG. S. 21438—19° 54'.		
Oct. 28 . .	21 24 3.16	9.0
O. ARG. S. 21443—22° 35'.		
Sept. 10 . .	21 24 8.64	7.5
29 . .	8.68	7.5
Oct. 1 . .	8.78	7.2
β AQUARII—6° 9'.		
Aug. 17 . .	21 24 42.77	
31 . .	42.83	
Sept. 17 . .	42.83	
Oct. 16 . .	42.81	
O. ARG. S. 21452—24° 44'.		
Sept. 7 . .	21 25 9.30	7.5
19 . .	9.24	7.0
21 . .	9.25	7.0
LALANDE 41870—12° 51'.		
Oct. 17 . .	21 25 18.41	6.5
B. A. C. 7485—16° 47'.		
Sept. 28 . .	21 26 28.93	6.5
Oct. 24 . .	29.14	7.0

	h. m. s.	Mag.
WEISSE 628—8° 46'.		
Oct. 12 . .	21 27 41.10	7.5
(*)—8° 43'.		
Oct. 12 . .	21 27 49.49	8.5
(*)—15° 11'.		
Oct. 26 . .	21 28 5.58	9.0
B. A. C. 7497+1° 15'.		
Aug. 26 . .	21 28 5.91	6.0
Sept. 10 . .	5.87	6.0
LALANDE 42034+37° 57'.		
Oct. 1 . .	21 28 18.68	6.5
23 . .	18.37	7.0
(*)—38° 0'.		
Oct. 23 . .	21 28 22.13	7.5
WEISSE 662+0° 34'.		
Oct. 28 . .	21 28 42.58	7.7
(*)—16° 18'.		
Sept. 19 . .	21 28 43.21	8.0
Oct. 5 . .	43.08	
(*)—36° 29'.		
Oct. 17 . .	21 28 54.77	8.0
LACAILLE 8854—36° 29'.		
Oct. 17 . .	21 29 1.25	7.0
(*)—18° 59'.		
Aug. 31 . .	21 29 7.64	7.0
Sept. 7 . .	7.61	7.0
72 CYGNI+37° 57'.		
Oct. 1 . .	21 29 28.07	5.0
23 . .	27.80	5.0
(*)+38° 51'.		
Sept. 17 . .	21 29 42.87	6.5
28 . .	43.06	6.5
WEISSE 655—10° 46'		
Oct. 28 . .	21 29 56.12	7.2
B. A. C. 7507—19° 2'.		
Aug. 31 . .	21 30 5.95	6.0
Sept. 7 . .	5.88	6.0
WEISSE 691—5° 23'.		
Aug. 26 . .	21 30 7.81	7.5
Oct. 26 . .	7.66	
Nov. 3 . .	7.81	8.0
(*)—8° 24'.		
Oct. 12 . .	21 30 12.56	8.0
O. ARG. S. 21525—17° 48'.		
Sept. 10 . .	21 30 43.85	6.0
18 . .	43.94	6.5

	h. m. s.	Mag.
ξ AQUARII—8° 2[illegible].		
Sept. 21 . .	21 30 49.76	[illegible]
29 . .	49.76	
Nov. 6 . .	49.75	
13 . .	49.75	
LALANDE 42108—11° 30'.		
Sept. 19 . .	21 31 9.30	[illegible]
(*)—36° 26'.		
Oct. 17 . .	21 32 1.41	[illegible]
B. A. C. 7524+35° 41'.		
Aug. 31 . .	21 32 31.93	[illegible]
Sept. 17 . .	31.92	[illegible]
28 . .	32.12	[illegible]
(*)—35° 7'.		
Aug. 26 . .	21 32 37.50	[illegible]
Sept. 30 . .	37.41	
WEISSE 768—11° 24'.		
Sept. 7 . .	21 33 10.40	
18 . .	10.40	[illegible]
WEISSE 801—11° 23'.		
Sept. 7 . .	21 34 8.23	
18 . .	8.24	
O. ARG S. 21562—22° 32'.		
Sept. 10 . .	21 34 8.87	[illegible]
21 . .	8.89	[illegible]
29 . .	8.86	[illegible]
9 CEPHEI+61° 29'.		
Oct. 16 . .	21 34 26.37	
26 . .	25.65	[illegible]
Nov. 3 . .	25.85	[illegible]
42 CAPRICORNI—14° 38'.		
Oct. 5 . .	21 34 28.60	[illegible]
28 . .	28.68	[illegible]
B. A. C. 7536—20° 24'.		
Sept. 19 . .	21 34 29.46	[illegible]
Oct. 1 . .	29.47	[illegible]
LALANDE 42269—38° 55'		
Oct. 23 . .	21 34 36.31	[illegible]
24 . .	36.26	[illegible]
41 CAPRICORNI—23° 51'.		
Oct. 12 . .	21 34 36.[illegible]	[illegible]
B. A. C. 7538—44° 5'		
Nov. 6 . .	21 34 43.73	[illegible]
(*)+36° 57'.		
Aug. 31 . .	21 36 44.06	[illegible]
Sept. 28 . .	43.87	[illegible]
O. ARG. S. 21596—18° 47'		
Sept. 19 . .	21 36 47.34	[illegible]
29 . .	47.35	[illegible]
(*)+40° 28'.		
Oct. 24 . .	21 37 9.06	[illegible]
28 . .	8.93	[illegible]

	h.	m.	s.	Mag.
ι Piscis Australis−33° 38'.				
Sept. 10 . .	21	37	11.80	5.0
17 . .			11.59	
(*)+40° 27'.				
Oct. 24 . .	21	37	19.35	7.0
28 . .			19.28	7.5
O. Arg. N. 22729+70° 43'.				
Nov. 6 . .	20	37	20.64	7.0
π¹ Cygni+50° 35'.				
Oct. 1 . .	21	37	29.00	5.0
12 . .			28.93	5.0
(*)+37° 18'.				
Aug. 31 . .	21	37	32.58	7.0
Sept. 18 . .			32.66	6.0
Lalande 42355−5° 20'.				
Sept. 7 . .	21	37	35.80	6.0
21 . .			35.77	5.5
ε Pegasi+9° 17'.				
Oct. 17 . .	21	37	48.09	
(*)−9° 39'.				
ept. 30 . .	21	37	51.45	8.5
(*)+37° 25.'				
ug. 31 . .	21	37	53.55	6.0
ept. 18 . .			53.60	6.0
B. A. C. 7562−9° 39'.				
ept. 30 . .	21	37	59.03	6.5
79 Cygni+37° 41'.				
ct. 5 . .	21	38	3.09	5.5
23 . .			2.94	6.0
c¹ Capricorni−9° 41'.				
pt. 30 . .	21	38	4.26	5.5
Weisse (2) 933+37° 42.'				
ct. 5 . .	21	38	14.16	6.5
23 . .			14.07	7.3
μ Cygni (1st *)+28° 8'.				
t. 26 . .	21	38	19.48	5.5
μ Cygni (2d *)+28° 8'.				
t. 26 . .	21	38	19.86	6.5
B. A. C. 7570+28° 11'.				
t. 26 . .	21	38	41.37	7.0
O. Arg. S. 21629−18° 46'.				
g. 26 . .	21	39	27.91	9.0
v. 3 . .			27.82	8.5
(*)−11° 26'.				
pt. 29 . .	21	39	28.03	8.0
t. 28 . .			28.11	8.5
(*)+38° 55'.				
pt. 28 . .	21	39	29.49	7.7
v. 6 . .			29.51	8.2

	h.	m.	s.	Mag.
(*)−18° 46'.				
Sept. 19 . .	21	39	52.91	9.0
O. Arg. S. 21635−24° 17'.				
Sept. 7 . .	21	40	6.13	9.0
17 . .			6.14	8.5
(*)−17° 54'.				
Sept. 10 . .	21	40	25.90	6.5
21 . .			25.92	6.5
O. Arg. S. 21645−18° 49'.				
Aug. 26 . .	21	40	32.56	7.5
Sept. 19 . .			32.48	7.0
(*)−1° 9'.				
Oct. 17 . .	21	40	33.73	
(*)—1° 9'.				
Oct. 17 . .	21	40	39.72	8.8
(*)−18° 58'.				
Aug. 26 . .	21	41	5.04	8.5
Lalande 42507+37° 3'.				
Sept. 18 . .	21	41	20.59	6.0
Oct. 1 . .			20.78	6.0
78 Draconis+71° 43'.				
Aug. 31 . .	21	41	28.55	5.5
Oct. 12 . .			28.17	5.5
(*)−29° 15'.				
Sept. 7 . .	21	41	32.45	8.5
17 . .			32.24	8.0
O. Arg. S. 21662−19° 0'.				
Sept. 29 . .	21	42	7.38	7.0
Oct. 24 . .			7.50	7.7
(*)+2° 6'.				
Nov. 6 . .	21	42	21.70	9.0
O. Arg. S. 21677−27° 57'.				
Nov. 3 . .	21	43	4.94	7.7
Lalande 42563+38° 2'.				
Sept. 28 . .	21	43	5.54	5.7
Oct. 23 . .			5.42	5.5
(*)−5° 16'.				
Sept. 21 . .	21	43	51.88	8.0
Oct. 1 . .			51.93	8.0
(*)+37° 44'.				
Oct. 26 . .	21	43	52.35	7.3
28 . .			52.48	7.0
(*)+36° 28'.				
Sept. 18 . .	21	43	59.82	7.0
Nov. 13 . .			59.83	
O. Arg. S. 21687−28° 1'.				
Sept. 10 . .	21	44	1.94	7.0
Oct. 17 . .			1.87	7.8

	h.	m.	s.	Mag.
Lacaille 8948−37° 31'.				
Aug. 26 . .	21	45	23.98	7.0
Sept. 17 . .			24.07	6.0
(*)+38° 57'.				
Aug. 31 . .	21	45	30.52	7.5
B. A. C. 7614+38° 55'.				
Aug. 31 . .	21	45	42.29	6.5
Sept. 28 . .			42.36	5.7
μ Capricorni−14° 10'.				
Sept. 7 . .	21	46	12.33	
(*)+3° 5'.				
Nov. 3 . .	21	46	25.75	9.5
Lacaille 8952−36° 41'.				
Sept. 29 . .	21	46	30.58	5.5
(*)+37° 49'.				
Oct. 5 . .	21	46	32.37	7.0
23 . .			32.24	6.7
(*)+38° 20'.				
Sept. 21 . .	21	46	36.79	
Oct. 5 . .			36.84	7.0
26 . .			36.61	7.0
28 . .			36.66	7.2
Nov. 13 . .			36.88	
(*)+38° 18'.				
Sept. 21 . .	21	46	50.17	
Oct. 5 . .			50.29	7.0
28 . .			50.19	7.8
Nov. 13 . .			50.36	
(*)−11° 20'.				
Sept. 10 . .	21	47	3.76	9.0
Oct. 1 . .			3.84	8.7
Weisse (2) 1140+38° 13'.				
Oct. 5 . .	21	47	23.01	6.0
(*)+3° 8'.				
Nov. 3 . .	21	47	58.76	9.0
(*)−24° 22'.				
Aug. 26 . .	21	48	2.35	7.5
Sept. 17 . .			2.28	8.3
Oct. 17 . .			2.13	8.8
(*)−21° 33'.				
Sept. 29 . .	21	49	20.07	9.0
B. A. C. 7639−18° 31'.				
Sept. 30 . .	21	49	36.20	6.7
Oct. 1 . .			36.28	6.0
Weisse (2) 1196+35° 31'.				
Sept. 18 . .	21	49	48.05	6.0
28 . .			48.23	6.0
O. Arg. S. 21759−21° 45'.				
Aug. 26 . .	21	50	15.38	8.5
31 . .			15.30	9.0
Sept. 10 . .			15.31	8.5

	h.	m.	s.	Mag.
O. Arg. S. 21760−21° 47'.				
Aug. 26 . .	21	50	16.09	8.5
31 . .			16.00	9.0
Sept. 10 . .			16.01	8.5
(*)−23° 28.				
Sept. 29 . .	21	51	58.88	6.0
Oct. 12 . .			59.02	6.5
(*)−20° 37'.				
Sept. 17 . .	21	52	0.25	8.3
19 . .			0.31	9.0
21 . .			0.28	8.3
(*)−20° 38'.				
Sept. 17 . .	21	52	5.92	8.0
19 . .			5.89	8.3
21 . .			5.94	9.0
O. Arg. S. 21787−21° 16'.				
Oct. 1 . .	21	52	35.13	9.0
Lalande 42878+38° 18'.				
Sept. 28 . .	21	52	38.60	7.7
Oct. 5 . .			38.51	7.0
(*)−12° 37'.				
Oct. 17 . .	21	53	21.60	9.2
Nov. 6 . .			21.71	9.5
O. Arg. S. 21789−21° 16'.				
Sept. 30 . .	21	53	35.09	9.5
18 Pegasi+6° 6'.				
Oct. 16 . .	21	53	38.32	6.0
O. Arg. S. 21800−20° 59'.				
Aug. 26 . .	21	53	41.47	9.0
Sept. 10 . .			41.40	8.7
Weisse 1240−13° 41'.				
Oct. 26 . .	21	54	4.44	7.7
(*)−21° 23'.				
Nov. 3 . .	21	54	25.10	9.2
Weisse (2) 1331+34° 0'.				
Aug. 31 . .	21	54	37.87	6.5
Sept. 18 . .			37.85	6.0
Weisse 1253−12° 36'.				
Oct. 17 . .	21	54	41.25	8.0
23 . .			41.36	8.0
Weisse 1255−12° 36'.				
Oct. 17 . .	21	54	42.36	8.2
23 . .			42.46	8.0
B. A. C. 7665−18° 32'.				
Sept. 29 . .	21	55	2.24	5.5
29 Aquarii (1st *)−17° 36'.				
Sept. 17 . .	21	55	19.30	7.0
Oct. 24 . .			19.37	7.0
29 Aquarii (2d *)−17° 36'.				
Sept. 17 . .	21	55	19.66	7.0
Oct. 24 . .			19.63	7.0

	h.	m.	s.	Mag.
(*)−11° 18′.				
Sept. 28 . .	21	55	49.64	9.0
30 . .			49.72	9.0
(*)−26° 18′.				
Aug. 26 . .	21	55	57.97	9.0
Sept. 10 . .			58.08	8.5
O. Arg. S. 21829−20° 45′.				
Sept. 19 . .	21	55	59.43	9.0
21 . .			59.37	9.0
30 Aquarii−7° 10′.				
Oct. 16 . .	21	56	26.00	5.5
O. Arg. S. 21836−25° 27′.				
Oct. 5 . .	21	56	29.97	8.5
O. Arg. S. 21837−25° 27′.				
Oct. 5 . .	21	56	30.44	8.5
Lacaille 9006−39° 31′.				
Nov. 6 . .	21	56	30.90	7.3
13 . .			30.95	
Weisse (2) 1398+36° 21′.				
Oct. 26 . .	21	56	41.01	6.5
O. Arg. S. 21841−22° 25′.				
Nov. 3 . .	21	56	55.28	7.2
B. A. C. 7675−27° 27′.				
Oct. 1 . .	21	57	12.87	6.5
(*)−19° 43′.				
Aug. 31 . .	21	57	42.30	8.3
Sept. 18 . .			42.30	8.0
29 . .			42.30	8.5
(*)−27° 29′.				
Oct. 1 . .	21	57	50.46	9.0
(*)−20° 28′.				
Aug. 14 . .	21	58	41.06	8.2
Sept. 10 . .			41.05	8.0
O. Arg. S. 21877−19° 34′.				
Sept. 17 . .	21	58	44.93	8.3
18 . .			44.93	8.5
O. Arg. S. 21876−29° 11′.				
Sept. 19 . .	21	58	47.38	6.5
21 . .			47.38	6.5
α Aquarii−0° 57′.				
Oct. 23 . .	21	59	6.34	
28 . .			6.38	
(*)−9° 50′.				
Oct. 17 . .	22	0	17.25	9.2
B. A. C. 7697−11° 6′.				
Sept. 30 . .	22	0	22.39	6.0
Weisse 1375−9° 50′.				
Oct. 17 . .	22	0	23.75	8.3

	h.	m.	s.	Mag.
O. Arg. N. 23362+52° 51′.				
Oct. 16 . .	22	0	28.08	8.0
O. Arg. S. 21904−15° 8′.				
Aug. 31 . .	22	0	32.91	6.0
Sept. 29 . .			32.94	6.0
Oct. 5 . .			32.90	6.5
(*)−23° 12′.				
Nov. 3 . .	22	0	45.37	8.0
13 . .			45.32	7.5
B. A. C. 7702−34° 41′.				
Oct. 24 . .	22	0	48.98	6.0
ι Pegasi+24° 42′.				
Nov. 6 . .	22	0	57.64	5.0
O. Arg. S. 21912−18° 29′.				
Aug. 26 . .	22	1	6.74	7.5
Sept. 28 . .			6.70	8.0
(*)+53° 2′.				
Sept. 21 . .	22	1	13.19	6.0
O. Arg. S. 21915−22° 20′.				
Oct. 1 . .	22	1	28.65	9.0
5 . .			28.42	9.2
35 Aquarii−19° 10′.				
Sept. 17 . .	22	1	50.98	5.7
18 . .			50.98	
(*)−19° 8′.				
Sept. 17 . .	22	1	58.01	8.3
(*)−40° 18′.				
Sept. 19 . .	22	1	59.04	8.0
O. Arg. N. 23438+52° 29′.				
Oct. 26 . .	22	2	0.53	7.5
B. A. C. 7735+82° 14′.				
Oct. 28 . .	22	2	44.02	
O. Arg. S. 21944−24° 12′.				
Sept. 29 . .	22	3	15.22	8.5
π^1 Pegasi+32° 31′.				
Sept. 10 . .	22	3	28.01	6.0
Oct. 12 . .			28.19	6.0
(*)+36° 45′.				
Oct. 23 . .	22	3	34.12	8.3
(*)−38° 41′.				
Sept. 30 . .	22	3	42.35	7.5
O. Arg. S. 21962−27° 4′.				
Oct. 1 . .	22	4	30.63	9.0
O. Arg. S. 21964−22° 1′.				
Oct. 5 . .	22	4	33.79	9.3
Weisse 59−11° 40′.				
Sept. 19 . .	22	4	38.91	7.5
28 . .			38.84	

	h.	m.	s.	Mag.
Lacaille 9052−40° 51′.				
Oct 17 . .	22	4	40.46	6.0
O. Arg. S. 21966−15° 47′.				
Aug. 26 . .	22	5	11.44	9.0
Sept. 21 . .			11.47	8.5
39 Aquarii−14° 51′.				
Sept. 18 . .	22	5	25.03	5.0
Lalande 43319+35° 41′.				
Oct. 24 . .	22	5	30.91	6.5
26 . .			30.73	7.0
Lalande 43320+36° 38′.				
Oct. 28 . .	22	5	32.62	8.0
Nov. 3 . .			32.90	
O. Arg. S. 21983−27° 9′.				
Sept. 29 . .	22	5	44.30	8.0
ζ Cephei+57° 33′.				
Nov. 4 . .	22	6	20.67	
B. A. C. 7753+33° 57′.				
Aug. 31 . .	22	7	2.70	5.5
Oct. 12 . .			2.90	5.0
O. Arg. S. 22013−24° 40′.				
Sept. 17 . .	22	7	30.55	6.5
19 . .			30.70	6.0
Weisse 118−15° 45′.				
Sept. 28 . .	22	7	35.74	7.0
Oct. 1 . .			35.91	7.5
Weisse 129+1° 19′.				
Nov. 6 . .	22	7	47.20	
(*)−26° 22′.				
Oct. 5 . .	22	7	49.36	7.8
33 Piazzi+16° 32′.				
Nov. 13 . .	22	8	3.62	6.5
(*)+16° 32′.				
Nov. 13 . .	22	8	3.80	6.8
Weisse 155+0° 18′.				
Oct. 17 . .	22	8	59.60	8.3
B. A. C. 7768−26° 33′.				
Sept. 29 . .	22	9	18.95	5.5
B. A. C. 7775+62° 31′.				
Oct. 16 . .	22	9	44.56	6.0
23 . .			44.54	6.0
θ Aquarii−8° 26′.				
Aug. 26 . .	22	9	58.32	
Sept. 10 . .			58.33	
18 . .			58.35	
30 . .			58.28	
Nov. 3 . .			58.33	
23 . .			58.39	
Lacaille 9088−32° 26′.				
Sept. 19 . .	22	10	9.40	6.0

	h.	m.	s.	Mag.
44 Aquarii−6° 3′.				
Sept. 25 . .	42	10	19.16	[illegible]
Oct. 5 . .			19.13	[illegible]
O. Arg. S. 22049−21° 8′.				
Sept. 17 . .	22	10	26.58	[illegible]
21 . .			26.57	[illegible]
(*)+37° 42′.				
Oct. 24 . .	24	10	30.92	
25 . .			31.05	[illegible]
O. Arg. S. 22051−21° 9′.				
Sept. 17 . .	22	10	49.66	
21 . .			49.75	[illegible]
O. Arg. S. 22060−21° 10′.				
Sept. 21 . .	22	11	23.32	[illegible]
Oct. 1 . .			23.47	[illegible]
(*)+66° 2′.				
Nov. 6 . .	22	11	40.06	[illegible]
Weisse (2) 271+35° 22′.				
Aug. 31 . .	22	12	[illegible]	
Oct. 12 . .			11.28	[illegible]
O. Arg. S. 22070−24° 28′.				
Sept. 29 . .	22	12	13.56	[illegible]
Oct. 17 . .			13.52	[illegible]
Weisse 223−3° 28′.				
Sept. 28 . .	22	12	[illegible]	[illegible]
(*)−35° 13′.				
Sept. 19 . .	22	13	[illegible]	[illegible]
Oct. 5 . .			[illegible]	[illegible]
Lalande 43576−37° [illegible]				
Sept. 10 . .	22	13	[illegible]	
Lalande 43577−37° [illegible]				
Sept. 10 . .	22	13	[illegible]	[illegible]
Oct. 16 .			[illegible]	[illegible]
(*)−22° 19′.				
Sept. 17 . .	22	13	[illegible]	
O. Arg. S. 22087−22° [illegible]				
Sept. 17 . .	22	13	[illegible]	[illegible]
O. Arg. S. 22089−29° [illegible]				
Sept. 30 . .	20	14	16.55	[illegible]
Oct. 1 . .			[illegible]	[illegible]
(*)−35° 11′.				
Oct. 28 . .	22	14	[illegible]	[illegible]
Nov. 3 . .			[illegible]	[illegible]
(*)−35° 9′.				
Oct. 28 . .	22	14	[illegible]	[illegible]
Nov. 3 . .			32.03	[illegible]
Lalande 43630+36° [illegible]				
Oct. 12 . .	22	14	45.23	[illegible]
23 . .			[illegible]	[illegible]

	h.	m.	s.	Mag.
32 PEGASI+27° 40′.				
ov. 4	22	15	19.25	
13			19.22	
(*)+36° 34′.				
ct. 12	22	15	24.43	8.5
23			24.34	8.3
O. ARG. S. 22102—25° 21′.				
ept. 21	22	15	27.01	8.5
49 AQUARII—25° 26′.				
ept. 28	22	16	15.72	5.5
WEISSE (2) 349+36° 34′.				
ct. 12	22	16	24.12	8.7
23			23.92	8.3
O. ARG. S. 22117—21° 17′.				
ept. 10	22	16	37.56	7.7
19			37.70	7.0
LACAILLE 9120—27° 3′.				
ept. 30	22	16	49.50	7.5
ct. 1			49.69	7.5
O. ARG. S. 22121—29° 21′.				
ct. 5	22	16	52.47	8.5
17			52.39	8.0
(*)—38° 53′.				
ov. 6	22	17	2.72	8.3
LALANDE 43717+35° 59′.				
ct. 16	22	17	4.73	6.0,
26			4.47	6.0
WEISSE 331—11° 50′.				
pt. 29	22	17	12.66	7.5
51 AQUARII—5° 30′.				
t. 24	22	17	20.51	5.0
v. 23			20.45	5.5
WEISSE 346—11° 50′.				
pt. 29	22	17	36.69	7.0
LALANDE 43719—13° 38′.				
pt. 17	22	17	47.31	7.3
t. 28			47.48	8.0
WEISSE 363—13° 41′.				
pt. 17	22	18	10.57	8.6
t. 28			10.79	8.5
(*)+38° 33′.				
v. 3	22	18	13.27	8.2
13			13.18	8.0
O. ARG. S. 22133—29° 24′.				
t. 17	22	18	35.24	8.5
π AQUARII+0° 43′.				
g. 31	22	18	38.25	
t. 28			38.24	
v. 30			38.27	

	h.	m.	s.	Mag.
O. ARG. S. 22146—19° 2′.				
Oct. 26	22	19	1.12	8.3
Nov. 23			1.17	8.2
(*)—29° 2′.				
Sept. 21	22	19	6.82	8.3
Oct. 1			6.90	8.5
WEISSE 398—11° 54′.				
Sept. 10	22	19	47.21	6.5
19			47.27	5.8
30			47.17	6.5
O. ARG. S. 22323—22° 47′.				
Sept. 19	22	19	47.22	
(*)+38° 33′.				
Oct. 12	22	19	56.62	9.0
23			56.43	8.8
(*)+38° 33′.				
Oct. 12	22	20	5.86	9.0
23			5.83	8.5
O. ARG. S. 22165—27° 53′.				
Oct. 24	22	20	54.84	8.2
(*)+36° 46′.				
Oct. 5	22	20	59.49	6.0
Nov. 3			59.30	7.0
(*)—34° 27′.				
Oct. 17	22	21	15.10	7.3
Sept. 17			15.22	7.0
LALANDE 43871+39° 0′.				
Oct. 28	22	21	23.31	7.7
Nov. 13			23.41	7.0
B. A. C. 7829+62° 40′.				
Nov. 4	22	21	25.92	
δ¹ GRUIS—44° 10′.				
Nov. 6	22	21	29.21	4.5
(*)—16° 21′.				
Sept. 29	22	21	37.31	9.0
Oct. 1			37.50	9.0
(*)—34° 32′.				
Oct. 17	22	22	5.39	6.7
Sept. 17			5.56	7.0
(*)—29° 24′.				
Nov. 30	22	22	6.25	9.0
(*)—31° 7′.				
Sept. 19	22	22	52.24	8.0
O. ARG. S. 22197—23° 41′.				
Sept. 10	22	24	5.44	6.5
(*)—34° 32′.				
Oct. 17	22	24	9.32	
Sept. 17			9.42	8.3

	h.	m.	s.	Mag.
(*)+6° 34′.				
Aug. 31	22	24	21.59	9.3
O. ARG. S. 22199—23° 21′.				
Oct. 26	22	24	26.36	8.8
SCHJELLERUP 9211+6° 43′.				
Sept. 28	22	24	36.42	8.8
29			36.48	9.0
58 AQUARII—11° 35′.				
Oct. 5	22	24	47.66	5.5
28			47.69	5.0
O. ARG. S. 22204—28° 23′.				
Oct. 12	22	25	18.80	8.5
WEISSE 518+6° 43′.				
Sept. 28	22	25	32.70	8.7
29			32.74	8.2
α LACERTÆ+49° 36′.				
Oct. 23	22	25	56.52	5.0
WEISSE 527+6° 43′.				
Sept. 29	22	26	2.85	8.3
WEISSE 528+6° 43′.				
Sept. 29	22	26	3.26	8.3
(*)—34° 34′.				
Oct. 17	22	26	21.06	
24			21.22	8.0
(*)—28° 13′.				
Oct. 12	22	26	30.73	9.2
Nov. 13			30.72	9.0
(*)—37° 22′.				
Nov. 23	22	26	42.75	7.2
O. ARG. S. 22323—22° 46′.				
Sept. 19	22	26	47.22	8.2
Oct. 1			47.30	8.5
(*)—28° 13′.				
Nov. 13	22	27	6.41	8.3
O. ARG. S. 22230—23° 17′.				
Nov. 3	22	27	14.04	7.3
6			14.37	7.7
(*)—28° 9′.				
Oct. 12	22	27	14.22	8.5
(*)+37° 27′.				
Aug. 31	22	27	33.72	7.5
Sept. 30			33.99	7.5
O. ARG. S. 22239—18° 49′.				
Sept. 17	22	27	40.14	7.5
Oct. 26			40.12	8.0

	h.	m.	s.	Mag.
(*)—28° 13′.				
Oct. 12	22	27	51.02	9.0
(*)—31° 2′.				
Oct. 28	22	28	29.45	7.5
η AQUARII—0° 47′.				
Sept. 21	22	28	40.56	
Oct. 16			40.48	
Nov. 14			40.54	
18			40.52	
σ¹ GRUIS—41° 17′.				
Oct. 17	22	28	53.01	6.0
(*)—41° 17′.				
Oct. 17	22	29	22.85	5.5
O. ARG. S. 22265—18° 50′.				
Sept. 17	22	29	31.55	7.5
Oct. 26			31.60	8.0
B. A. C. 7881+75° 32′.				
Nov. 4	22	29	58.12	
169 PIAZZI+3° 50′.				
Nov. 23	22	30	3.85	8.0
(*)—13° 35′.				
Sept. 19	22	30	10.82	7.0
28			10.73	7.0
LALANDE 44195+34° 53′.				
Oct. 1	22	30	13.82	6.0
23			13.80	6.0
(*)+36° 4′.				
Oct. 24	22	30	14.95	
Nov. 6			15.04	6.5
O. ARG. S. 22288—28° 8′.				
Sept. 29	22	30	53.62	7.7
Oct. 12			53.67	7.8
WEISSE (2) 687+34° 49′.				
Oct. 1	22	30	54.43	6.0
(*)—35° 24′.				
Oct. 28	22	31	0.78	7.2
Nov. 3			0.58	7.0
(*)—28° 58′.				
Nov. 13	22	31	35.68	8.0
O. ARG. S. 22304—28° 15′.				
Oct. 17	22	31	44.92	8.2
WEISSE 658+8° 33′.				
Nov. 30	22	31	57.07	7.5
9 LACERTÆ+50° 52′.				
Sept. 30	22	32	2.40	5.0
31 CEPHEI+72° 58′.				
Nov. 18	22	32	33.34	5.5

Star	Date	h. m. s.	Mag.
Lalande 44319+36° 41′.	Sept. 19	22 33 11.89	6.0
	Oct. 24	11.85	6.5
10 Lacertæ+38° 21′.	Oct. 23	22 33 25.74	5.5
	Nov. 6	25.77	4.5
Weisse (2) 764+36° 40′.	Sept. 19	22 33 38.63	6.0
	Oct. 24	38.63	6.5
Lalande 44346+38° 3′.	Sept. 28	22 33 42.63	6.0
	Oct. 12	42.83	7.0
(*)+36° 42′.	Sept. 19	22 33 43.85	7.3
	Oct. 24	43.75	8.0
19 Piscis Australis−30° 3′.	Sept. 17	22 35 7.74	5.5
	29	7.95	5.5
(*)+53° 40′.	Nov. 23	22 35 10.84	8.0
(*)−21° 39′.	Nov. 13	22 35 34.69	7.5
12 Lacertæ+39° 32′.	Sept. 30	22 35 39.57	5.0
(*)−29° 21′.	Oct. 17	22 35 47.82	8.5
	28	47.94	8.5
(*)−30° 22′.	Oct. 5	22 36 2.59	8.5
	Nov. 3	2.67	8.2
η Pegasi+29° 31′.	Oct. 12	22 36 54.70	4.0
	26	54.52	3.5
(*)+37° 10′.	Sept. 19	22 36 57.11	7.3
	28	57.33	8.3
Lalande 44466+37° 6′.	Sept. 19	22 37 1.24	6.0
	28	1.46	6.0
O. Arg. S. 22378−21° 39′.	Oct. 23	22 37 32.55	9.0
	Nov. 6	32.52	9.0
(*)+0° 28′.	Sept. 29	22 37 41.76	8.8
	Oct. 24	41.74	8.5
(*)−14° 17′.	Oct. 17	22 37 57.63	9.0
O. Arg. S. 22383−21° 34′.	Sept. 17	22 38 16.01	8.5
	Oct. 1	16.19	8.5
	Nov. 13	16.04	8.8
(*)−14° 16′.	Oct. 17	22 38 26.59	8.3
(*)−21° 33′.	Sept. 17	22 38 59.31	9.0
	Oct. 1	59.45	9.0
	Nov. 18	59.34	9.0
Lalande 44534+38° 30′.	Sept. 30	22 38 59.94	6.0
	Oct. 5	59.93	6.0
(*)+57° 49′.	Oct. 28	22 40 29.53	9.0
	Nov. 23	29.92	8.3
(*)+57° 49′.	Oct. 28	22 40 29.52	9.0
	Nov. 23	29.86	8.3
τ^1 Aquarii−14° 45′.	Oct. 12	22 40 48.53	5.5
	Nov. 23	48.30	5.5
B. A. C. 7951 (1st *)−4° 55′.	Sept. 29	22 41 7.75	7.5
B. A. C. 7951 (2d *)−4° 55′.	Sept. 29	22 41 8.12	7.5
Weisse 850−4° 55′.	Sept. 29	22 41 9.93	8.8
(*)−29° 22′.	Sept. 19	22 41 38.91	8.4
	Oct. 5	38.93	9.0
(*)−30° 15′.	Oct. 1	22 42 4.14	7.7
	17	3.92	8.0
O. Arg. S. 22432−20° 57′.	Oct. 23	22 42 13.41	9.0
Lacaille 9269−23° 48′.	Nov. 3	22 42 13.74	6.5
Weisse (2) 967+36° 43′.	Sept. 28	22 42 14.06	5.5
	30	14.02	6.0
Rumker 10641−7° 13′	Nov. 6	22 42 23.46	8.5
(*)−14° 17′.	Nov. 13	22 42 33.97	9.0
Lacaille 9271−33° 31′.	Sept. 17	22 42 44.11	6.0
	Oct. 24	44.05	5.5
Lalande 44661−14° 46′.	Oct. 12	22 43 30.63	6.5
	Nov. 30	30.49	7.5
(*)+39° 1′.	Sept. 28	22 44 6.52	7.5
	Nov. 14	6.34	8.0
Lacaille 9283−24° 28′.	Nov. 18	22 44 14.13	7.0
Lacaille 9286−40° 8′.	Nov. 3	22 45 2.00	6.8
ι Cephei+63° 30′.	Nov. 13	22 45 3.58	
	23	3.79	5.0
λ Aquarii−8° 17′.	Sept. 19	22 45 49.84	
	29	49.84	
	Oct. 5	49.91	
	26	49.93	
(*)+39° 2′.	Nov. 14	22 45 51.63	7.7
	30	52.00	7.0
Lacaille 9292−40° 8′.	Oct. 1	22 46 7.02	6.5
	17	6.73	6.0
O. Arg. S. 22466−24° 38′.	Sept. 17	22 46 20.40	7.0
Weisse 976−11° 0′.	Sept. 30	22 47 40.56	6.5
B. A. C. 7990+82° 27′.	Oct. 12	22 47 54.59	5.5
	28	54.89	5.5
B. A. C. 7986−5° 42′.	Oct. 23	22 48 26.40	5.5
Weisse 995−6° 24′.	Oct. 26	22 48 36.36	6.5
Lalande 44848+35° 17′.	Sept. 28	22 48 39.70	6.5
	Oct. 5	39.58	
δ Piscis Australis−33° 15′.	Oct. 1	22 48 44.57	4.5
(*)−37° 23′.	Sept. 29	22 48 53.97	8.0
Lalande 44851+35° 19′.	Sept. 28	22 48 56.37	8.3
	Oct. 5	56.41	
(*)+35° 18′.	Sept. 28	22 48 59.19	9.0
	Oct. 5	59.21	
(*)+35° 38′.	Sept. 17	22 49 37.57	8.5
	19	37.57	7.6
Lalande 44862+35° 3	Sept. 17	22 49 41.14	[illegible]
	19	41.12	[illegible]
Weisse 1017+10° 53′.	Sept. 30	22 50 0.22	[illegible]
Rumker 10753+56° 40	Oct. 24	22 50 5.24	[illegible]
	Nov. 3	5.35	[illegible]
Weisse 1026+0° 10′.	Nov. 10	22 50 13.13	[illegible]
16 Lacertæ+40° 53′.	Nov. 4	22 50 27.57	[illegible]
B. A. C. 7993−5° 31′.	Oct. 26	22 50 33.35	[illegible]
Lacaille 9313−38° 39′.	Nov. 14	22 50 34.08	[illegible]
Lalande 44877−21° 1′.	Oct. 17	22 50 38.77	[illegible]
	Nov. 6	38.51	[illegible]
Lalande 44918+38° 40	Oct. 12	22 51 36.48	[illegible]
Lalande 44922+38° 36′.	Oct. 12	22 51 40.69	[illegible]
	23	40.63	[illegible]
Weisse 1068−8° 56′.	Sept. 29	22 52 12.77	[illegible]
	Oct. 1	12.90	[illegible]
Weisse 1082+11° 1′.	Oct. 28	22 52 41.44	[illegible]
(*)+11° 29′.	Oct. 5	22 52 46.97	[illegible]
	24	47.00	[illegible]
2 Piscium+0° 15′.	Nov. 4	22 52 47.60	
Weisse 1087−5° 4′.	Oct. 26	22 52 57.25	[illegible]
	Nov. 13	57.19	[illegible]
Weisse 1088−5° 4′	Oct. 26	22 52 57.98	[illegible]
	Nov. 13	57.52	[illegible]
Lacaille 9326−41° 52′.	Nov. 14	22 53 2.81	[illegible]
	24	2.98	[illegible]
O. Arg. S. 22545−23° 14′.	Sept. 17	22 53 25.14	[illegible]
	30	25.15	[illegible]
Weisse 1108+11° 35′.	Oct. 5	22 53 47.22	[illegible]
	24	47.28	[illegible]

Star	Date	h. m. s.	Mag.
(*)−7° 47′.	Oct. 28	23 53 49.85	9.0
(*)−17° 36′.	Sept. 19	22 53 57.62	7.0
	28	57.58	8.3
Lacaille 9336−23° 30′.	Oct. 17	22 54 23.23	5.0
Lalande 45037+38° 0′.	Oct. 26	22 54 51.89	
	Nov. 3	51.96	7.0
Weisse 1136−7° 40′.	Oct. 1	22 55 0.34	7.0
	28	0.31	7.2
(*)−6° 39′.	Nov. 6	22 55 9.42	7.5
Weisse 1150 (1st *)−12° 2′.	Nov. 14	22 55 34.28	8.0
Weisse 1150 (2d *)−12° 2′.	Nov. 14	22 55 36.67	8.3
82 Aquarii−7° 17′.	Nov. 10	22 55 47.41	
Rumker 10800−3° 35′.	Nov. 24	22 55 48.85	9.0
(*)−8° 31′.	Nov. 23	22 55 59.25	9.0
Lalande 45078+36° 46′.	Oct. 12	22 56 0.72	7.5
	23	0.65	7.5
B. A. C. 8065−35° 28′.	ept. 17	22 56 17.62	5.5
	30	17.68	5.0
Lacaille 9351−41° 32′.	ov. 18	22 56 23.06	6.0
(*)−6° 8′.	ct. 17	22 57 7.89	8.6
O. Arg. S. 22587−22° 57′.	pt. 19	22 57 13.28	7.0
	28	13.18	7.0
	29	13.18	7.0
Weisse 1204−12° 54′.	ct. 1	22 57 40.91	7.0
	5	40.75	8.0
(*)−6° 10′.	ov. 30	22 57 54.00	8.5
α Pegasi+14° 30′.	ov. 5	22 58 17.19	
	24	17.18	
(*)+38° 11′.	Nov. 3	22 58 23.31	9.2
	13	23.44	
h^2 Aquarii−8° 28′.	Nov. 6	22 58 32.57	6.5
Weisse 1220+0° 35′.	Oct. 24	22 58 38.37	6.5
Weisse 1221−7° 53′.	Nov. 14	22 58 42.61	8.0
Weisse 1228+1° 3′.	Oct. 12	22 58 48.79	8.0
	28	48.71	8.2
(*)−8° 25′.	Nov. 23	22 59 7.15	9.0
(*)−35° 35′.	Sept. 17	23 0 8.29	7.0
	19	8.27	7.2
h^4 Aquarii−8° 27′.	Nov. 6	23 0 26.01	6.0
56 Pegasi+24° 45′.	Sept. 28	23 0 46.98	5.0
Weisse 9−13° 21′.	Oct. 12	23 2 28.23	8.3
c^2 Aquarii−21° 54′.	Sept. 29	23 2 30.67	4.0
	30	30.68	4.5
Lalande 45323+38° 11′.	Oct. 5	23 2 49.75	6.5
	23	49.93	7.5
B. A. C. 8066−41° 18′.	Sept. 17	23 2 54.79	5.5
	Oct. 1	54.97	6.0
ι Gruis−45° 57′.	Nov. 6	23 2 59.62	4.5
	24	59.42	5.0
Lacaille 9385−40° 46′.	Oct. 17	23 3 9.88	6.0
	28	10.06	7.3
58 Pegasi+9° 7′.	Oct. 24	23 3 28.61	
	Nov. 14	28.63	5.5
Lalande 45326−14° 22′.	Oct. 26	23 3 30.91	6.5
Weisse (2) 34+36° 8′.	Sept. 19	23 3 48.72	7.0
	28	48.88	8.0
Weisse (2) 35+36° 7′.	Sept. 19	23 3 52.34	7.0
	28	52 40	7.2
(*)+38° 10′.	Oct. 5	23 4 17.92	
Weisse 45−5° 49′.	Nov. 3	23 4 33.77	8.2
Weisse 47+2° 26′.	Nov. 5	23 4 35.60	7.7
(*)+37° 10′.	Sept. 30	23 5 9.40	8.0
Weisse 61+8° 4′.	Sept. 29	23 5 16.72	8.7
(*)−30° 47′.	Oct. 23	23 6 16.41	7.8
O. Arg. S. 22682−18° 6′.	Oct. 17	23 6 38.51	8.0
Weisse 95−4° 32′.	Oct. 12	23 6 57.09	8.5
Weisse 112+2° 35′.	Nov. 23	23 7 6.25	8.0
O. Arg. S. 22687−23° 53′.	Sept. 17	23 7 6.92	9.0
	Oct. 1	7.09	8.5
Weisse 111+4° 16′.	Oct. 26	23 7 23.87	6.0
O. Arg. S. 22688−17° 38′.	Sept. 19	23 7 26.37	6.5
	28	26.23	7.7
O. Arg. S. 22691−18° 5′.	Nov. 30	23 7 28.04	8.7
B. A. C. 8088−41° 50′.	Nov. 13	23 7 45.35	4.5
	14	45.10	6.0
(*)−39° 54′.	Nov. 24	23 7 45.60	7.3
Weisse 136−5° 14′.	Nov. 23	23 8 37.44	7.7
(*)−22° 3′.	Nov. 3	23 8 45.27	8.0
Weisse 142−6° 25′.	Oct. 5	23 8 57.51	8.5
	28	57.63	8.5
	Nov. 6	57.53	9.0
Piazzi 21+0° 35′.	Sept. 30	23 8 59.56	6.5
Lacaille 9415−41° 23′.	Nov. 4	23 9 6.34	8.0
	18	6.69	7.5
Lacaille 9424−41° 53′.	Nov. 13	23 9 39.34	5.0
	14	39.03	6.5
O. Arg. S. 22721−21° 56′.	Nov. 3	23 9 42.23	7.0
Lalande 45545−16° 17′.	Sept. 17	23 9 49.14	8.3
	19	49.28	8.0
(*)−30° 38′.	Oct. 23	23 9 49.48	8.0
O. Arg. S. 22723−21° 56′.	Sept. 28	23 9 55.94	6.5
	Nov. 3	55.97	6.5
O. Arg. S. 22727−19° 36′.	Oct. 12	23 10 7.00	7.2
	26	7.00	6.5
Lacaille 9429−29° 9′.	Nov. 30	23 10 9.55	6.0
Lalande 45588+37° 15′.	Nov. 18	23 10 43.57	8.0
	24	43.43	7 7
Weisse 188−13° 31′.	Oct. 28	23 10 56.57	8.0
(*)−6° 17′.	Oct. 1	23 11 2.61	8.0
	17	2.45	
Weisse 199−6° 17′.	Oct. 1	23 11 12.58	7.5
	17	12.46	
O. Arg. S. 22743−19° 34′.	Oct. 12	23 11 38.29	6.0
	26	38.23	6.0
Lacaille 9437−31° 16′.	Nov. 23	23 11 54.77	6.5
Weisse 222−6° 21′.	Oct. 1	23 12 1.23	8.0
	17	1.07	
Lacaille 9439−29° 7′.	Sept. 19	23 12 5.17	5.5
	Oct. 5	5.27	7.0
Weisse 227+2° 31′.	Sept. 30	23 12 10.33	7.5
Lalande 45648−19° 17′.	Sept. 17	23 12 36.48	7.0
	28	36.43	8.5
Lacaille 9443−42° 41′.	Nov. 6	23 12 36.66	8.5

	h. m. s.	Mag.
(*)−39° 10′.		
Oct. 23	23 12 42.72	8.3
Nov. 4	42.75	7.0
30	42.70	8.5
Lacaille 9437−31° 16′.		
Nov. 23	23 12 54.77	
Weisse 242−2° 18′.		
Nov. 13	23 13 3.61	8.8
o Cephei+67° 24′.		
Nov. 10	23 13 17.73	
Weisse 246−2° 20′.		
Nov. 13	23 13 22.49	8.5
(*)−39° 14′.		
Oct. 23	23 13 31.83	8.0
Nov. 5	31.76	7.0
30	31.71	8.3
(*)−34° 38′.		
Nov. 3	23 13 44.99	7.5
(*)−19° 17′.		
Sept. 17	23 14 5.45	7.5
Oct. 28	5.39	
Lalande 45704−19° 17′.		
Sept. 17	23 14 5.84	8.5
Oct. 28	5.93	7.5
(*)+36° 48′.		
Nov. 18	23 14 27.37	7.5
O. Arg. S. 22779−25° 36′.		
Oct. 12	23 14 28.26	
Nov. 14	28.02	7.0
B. A. C. 8139+37° 52′.		
Oct. 26	23 15 2.51	6.5
Nov. 23	2.71	6.5
64 Pegasi+31° 4′.		
Sept. 30	23 15 34.32	5.5
97 Aquarii−15° 45′.		
Sept. 28	23 15 50.04	
O. Arg. S. 22800+25° 21′.		
Nov. 6	23 16 19.87	7.0
B. A. C. 8150−43° 51′.		
Sept. 19	23 16 36.97	6.0
Oct. 17	36.95	5.5
Lacaille 9458−31° 50′.		
Nov. 24	23 16 46.38	6.8
(*)−34° 6′.		
Oct. 1	23 16 48.72	8.5
5	48.65	8.5
Nov. 5	48.63	

	h. m. s.	Mag.
(*)+36° 56′.		
Nov. 3	23 17 25.05	8.0
18	25.11	8.3
Weisse 340+5° 28′.		
Sept. 17	23 17 44.99	6.5
Oct. 12	44.99	
23	44.95	6.0
Weisse 342+13° 45′.		
Oct. 28	23 17 51.59	7.0
Nov. 14	51.50	7.0
Weisse (2) 363+35° 39′.		
Nov. 23	23 18 24.90	6.5
27	24.90	7.5
67 Pegasi+31° 39′.		
Sept. 30	23 18 29.20	6.0
Nov. 10	29.14	
ν Pegasi+22° 41′.		
Nov. 30	23 18 53.65	5.0
(*)−22° 28′.		
Sept. 19	23 19 44.03	6.0
Oct. 1	44.17	6.5
17	43.96	6.0
(*)+54° 21′.		
Nov. 24	23 20 0.86	8.0
Lalande 45892−15° 59′.		
Nov. 4	23 20 9.55	
13	9.58	6.5
(*)+54° 15′.		
Nov. 24	23 20 35.53	8.0
Lacaille 9482−28° 0′.		
Oct. 28	23 20 38.54	7.0
Nov. 3	38.54	7.0
(*)−34° 21′.		
Nov. 6	23 20 42.01	7.0
18	42.00	6.5
(*)+54° 15′.		
Nov. 24	23 20 50.58	8.0
13 Andromedæ+42° 11′.		
Nov. 14	23 20 51.69	5.5
(*)+54° 7′.		
Oct. 26	23 21 6.86	8.0
O. Arg. S. 22851−16° 2′.		
Nov. 13	23 21 9.30	6.5
23	9.14	6.0
B. A. C. 8175−12° 11′.		
Sept. 30	23 21 19.15	6.0
Nov. 10	19.09	
27	19.12	
θ Piscium+5° 39′.		
Sept. 17	23 21 22.42	
28	22.45	
Oct. 12	22.46	

	h. m. s.	Mag.
(*)+38° 54′.		
Nov. 30	23 22 20.71	7.3
(*)+54° 7′.		
Oct. 26	23 22 26.08	8.3
(*)+54° 15′.		
Nov. 24	23 22 26.27	8.0
(*)+54° 18′.		
Nov. 24	23 22 29.32	8.0
11 Piscium−2° 30′.		
Nov. 5	23 22 46.51	5.5
Weisse 443+0° 22′.		
Nov. 6	23 22 55.87	8.3
Weisse 449+0° 25′.		
Nov. 6	23 23 16.54	7.5
Weisse 452+7° 5′.		
Sept. 19	23 23 18.74	9.0
Oct. 1	18.88	9.0
(*)−39° 4′.		
Oct. 17	23 23 39.19	7.7
23	39.38	8.5
Lalande 46047+37° 55′.		
Oct. 12	23 24 19.13	6.0
28	18.85	6.0
Weisse 473+1° 38′.		
Sept. 30	23 24 27.08	7.2
Nov. 3	27.27	6.5
Weisse 476−4° 58′.		
Nov. 14	23 24 43.47	8.0
18	43.58	8.0
Lacaille 9507−42° 29′.		
Nov. 13	23 24 50.31	5.7
b³ Aquarii−22° 5′.		
Nov. 27	23 24 52.88	6.5
14 Andromedæ+38° 31′.		
Nov. 10	23 24 54.05	
Dec. 2	54.12	
B. A. C. 8196−21° 58′.		
Nov. 27	23 24 59.80	6.5
(*)−22° 32′.		
Nov. 23	23 25 19.74	7.3
Lalande 46097+37° 35′.		
Nov. 5	23 25 36.29	8.0
(*)+34° 14′.		
Oct. 1	23 26 1.20	6.0
Nov. 30	1.20	6.5
(*)−39° 0′.		
Sept. 19	23 27 41.98	8.0
Oct. 17	41.81	7.7

	h. m. s.	Mag.
Lalande 46188+37° 3′.		
Sept. 30	23 28 16.97	[illegible]
Oct. 12	16.99	[illegible]
Weisse 539+15° 8.		
Oct. 23	23 28 21.15	[illegible]
Rumker 11367−7° 52.		
Oct. 1	23 28 48.84	[illegible]
26	48.80	[illegible]
B. A. C. 8214−8° 11.		
Oct. 28	23 28 49.55	[illegible]
(*)−37° 32.		
Nov. 3	23 30 1.39	[illegible]
5	1.32	[illegible]
Weisse 609−1° 52′.		
Sept. 19	23 30 30.39	[illegible]
Oct. 5	30.33	[illegible]
Weisse (2) 639+35° 3.		
Sept. 30	23 30 37.35	[illegible]
Weisse (2) 658+35° 4′.		
Sept. 30	23 31 1.70	[illegible]
Oct. 12	1.66	[illegible]
Nov. 10	1.69	
B. A. C. 8225−15° 49.		
Oct. 28	23 31 17.39	[illegible]
ι Andromedæ+42° 32.		
Oct. 23	23 31 46.04	[illegible]
Lacaille 9542−42° 15.		
Oct. 17	23 31 58.64	[illegible]
Nov. 18	58.56	
Lacaille 9545−23° 15.		
Oct. 1	23 32 54.14	[illegible]
ι Piscium+4° 55′.		
Nov. 13	23 33 15.91	
23	15.83	
27	15.91	
Dec. 2	15.85	
Lacaille 9550−26° 55		
Oct. 26	23 33 37.13	[illegible]
Weisse 678−2° 6.		
Sept. 19	23 33 50.47	[illegible]
Oct. 5	50.39	[illegible]
Weisse 679+7° 5.		
Nov. 6	23 33 53.77	[illegible]
Weisse 683+7° 9.		
Nov. 6	23 34 1.98	[illegible]
Lacaille 9554−38° 33.		
Oct. 28	23 34 7.83	[illegible]
Weisse (2) 734+35° 58.		
Oct. 12	23 34 11.15	[illegible]
Nov. 10	11.02	

(*)—24° 54'.

	h. m. s.	Mag.
Nov. 24 . .	23 34 19.64	5.5

A^1 Cassiopeæ—18° 45'.

Nov. 14 . .	23 34 49.71	6.0

B. A. C. 8241—43° 1'.

Oct. 17 . .	23 35 2.16	6.5
Nov. 3 . .	2.19	6.0

Weisse 705+7° 29'.

Nov. 18 . .	23 35 3.91	8.5

ω^2 Aquarii—15° 16'.

Oct. 1 . .	23 35 58.79	5.0
23 . .	58.63	6.0

Weisse 730+1° 27'.

Sept. 19 . .	23 36 38.86	7.5
Oct. 5 . .	38.79	7.5

(*)+36° 11'.

Oct. 12 . .	23 36 45.00	8.0
Nov. 13 . .	45.07	7.7

Lacaille 9578—41° 24'.

Oct. 26 . .	23 37 18.73	7.0

Lalande 46496 (1st *)+6° 31'.

Oct. 28 . .	23 37 18.82	8.0
Nov. 5 . .	18.74	

Lalande 46496 (2d *)+6° 31'.

Nov. 5 . .	23 37 18.85	

Weisse 767—1° 24.'

Sept. 19 . .	23 38 20.26	7.0
30 . .	20.29	8.0
Oct. 5 . .	20.18	6.5
17 . .	20.29	6.0

Weisse 809—2° 15'.

Oct. 12 . .	23 40 42.50	8.5

τ Cassiopeæ+57° 55'.

Nov. 3 . .	23 40 42.83	5.0
14 . .	42.76	5.0

B. A. C. 8269+3° 29'.

Oct. 23 . .	23 41 6.23	7.0

B. A. C. 8270+3° 25'.

ct. 23 . .	23 41 10.52	7.0

O. Arg. S. 23052—17° 26'.

ept. 30 . .	23 41 27.30	7.0
ct. 1 . .	27.35	7.5

B. A. C. 8272+7° 31'.

ept. 19 . .	23 41 33.86	6.5
ct. 26 . .	33.81	5.5

Lalande 46632+7° 30'.

ept. 19 . .	23 41 40.41	7.7
ct. 26 . .	40.32	7.5

B. A. C. 8274—7° 7'.

ov. 6 . .	23 41 51.56	5.5

(*)—32° 8'.

	h. m. s.	Mag.
Oct. 28 . .	23 42 46.52	8.0
Nov. 5 . .	46.29	8.0

B. A. C. 8280+59° 14'.

Nov. 10 . .	23 42 52.11	

(*)—43° 3'.

Oct. 17 . .	23 42 57.92	8.0

Lacaille 9609—43° 3'.

Oct. 17 . .	23 43 5.59	6.5
Nov. 13 . .	5.77	

O. Arg. S. 23082—19° 1'.

Oct. 1 . .	23 44 3.96	6.5
5 . .	3.85	7.0

108 Aquarii—19° 39'.

Sept. 30 . .	23 44 38.29	5.0
Oct. 12 . .	38.40	4.5

O. Arg. S. 23096—18° 46'.

Sept. 19 . .	23 45 36.86	7.5
Oct. 26 . .	36.87	7.5

Lalande 46769—19° 48'.

Oct. 5 . .	23 45 57.30	6.0

(*)+34° 10'.

Oct. 23 . .	23 46 10.92	7.0
28 . .	10.76	7.0

(*)+28° 54'.

Nov. 14 . .	23 46 12.51	8.0

(*)+28° 55'.

Nov. 18 . .	23 46 18.26	7.5

(*)+34° 19'.

Nov. 3 . .	23 46 31.97	9.0
27 . .	32.03	9.3

Lalande 46811+34° 18'.

Oct. 23 . .	23 46 38.33	6.5
28 . .	38.15	6.5

(*)+38° 30'.

Oct. 12 . .	23 47 25.64	

Lalande 46836+38° 33'.

Oct. 1 . .	23 47 29.63	6.0
12 . .	29.56	6.5

(*)—5° 43'.

Nov. 6 . .	23 47 34.25	9.0

Weisse (2) 994+36° 51'.

Oct. 17 . .	23 48 13.49	8.0
Nov. 4 . .	13.52	8.2

Lalande 46873+37° 20'.

Nov. 13 . .	23 48 29.05	7.7
14 . .	29.12	7.7

O. Arg. S. 23124—18° 33'.

Sept. 30 . .	23 48 43.97	
Oct. 26 . .	44.00	7.0

Lacaille 9647—38° 48'.

Sept. 19 . .	23 48 56.18	7.5

Lacaille 9655—25° 28'.

Oct. 23 . .	23 49 47.77	5.5

Lacaille 9657—42° 55'.

	h. m. s.	Mag.
Nov. 3 . .	23 49 56.97	7.3
23 . .	56.95	8.0

O. Arg. S. 23135—30° 14'.

Oct. 5 . .	23 49 48.82	8.5
Nov. 18 . .	48.90	7.2

Lacaille 9659—27° 21'.

Nov. 24 . .	23 50 25.51	6.0

(*)—30° 5'.

Oct. 5 . .	23 50 48.82	

Lacaille 9665—39° 42'.

Oct. 12 . .	23 51 15.80	7.0
Nov. 6 . .	15.70	6.5

Weisse 1040+10° 50'.

Oct. 28 . .	23 51 25.49	8.5
Nov. 5 . .	25.45	8.8

O. Arg. S. 23156—22° 38'.

Sept. 30 . .	23 51 27.01	8.3
Oct. 26 . .	27.12	8.2

ι Ceti—16° 35'.

Nov. 27 . .	23 51 39.81	5.5

Weisse 1045+4° 55'.

Nov. 14 . .	23 51 43.34	8.3
30 . .	43.45	8.0

(*)—20° 44'.

Dec. 2 . .	23 52 1.78	9.0

Lacaille 9673—42° 58'.

Nov. 3 . .	23 52 26.56	6.0
13 . .	26.52	6.0

Weisse 1058+4° 0'.

Oct. 1 . .	23 52 30.97	8.5
Nov. 18 . .	30.92	8.3

ω Piscium+6° 8'.

Sept. 19 . .	23 52 38.18	
Oct. 5 . .	38.15	
17 . .	38.23	
Dec. 1 . .	38.18	

Lacaille 9674 (N. *)—27° 15'.

Nov. 23 . .	23 52 48.64	8.0
24 . .	48.54	7.7

Lacaille 9674 (S. *)—27° 15'.

Nov. 23 . .	23 52 48.63	8.0
24 . .	48.66	8.0

Lacaille 9680—25° 23'.

Oct. 23 . .	23 53 3.03	6.0
Dec. 2 . .	3.17	7.5

Lalande 47049+38° 8'.

Nov. 30 . .	23 53 23.62	6.0
Dec. 1 . .	23.57	

O. Arg. S. 23176—18° 44'.

Nov. 6 . .	23 53 25.98	8.0
27 . .	26.06	8.5

(*)—26° 21'.

Sept. 30 , .	23 53 51.55	8.7
Oct. 26 . .	51.55	8.3

O. Arg. S. 23181—23° 24'.

	h. m. s.	Mag.
Nov. 14 . .	23 54 0.94	8.2

O. Arg. S. 23182—28° 39'.

Oct. 12 . .	23 54 3.74	7.5
28 . .	3.67	8.0

Weisse 1110+4° 19'.

Nov. 18 . .	23 54 56.19	8.2

30 Piscium—6° 45'.

Nov. 10 . .	23 55 17.46	

85 Pegasi+26° 23'.

Dec. 1 . .	23 55 22.98	5.5

B. A. C. 8351—3° 29'.

Nov. 13 . .	23 55 22.64	6.0

B. A. C. 8355+65° 22'.

Oct. 1 . .	23 55 57.72	6.0
Nov. 5 . .	57.57	6.5

(*)+65° 22'.

Oct. 1 . .	23 55 59.95	7.0
Nov. 5 . .	59.92	7.7

(*)—35° 20'.

Oct. 17 . .	23 56 17.45	
28 . .	17.47	

(*)+0° 49'.

Nov. 3 . .	23 56 59.36	8.3

2 Ceti—18° 4'.

Sept. 30 . .	23 57 4.72	4.5
Oct. 23 . .	4.72	4.5

B. A. C. 8360—17° 16'.

Oct. 5 . .	23 57 39.92	6.0
26 . .	40.04	5.5

(*)—33° 11'.

Nov. 24 . .	23 58 12.84	8.2

B. A. C. 8364+57° 48'.

Nov. 23 . .	23 58 13.56	

Lacaille 9713—36° 46'.

Oct. 12 . .	23 58 21.67	7.0
Nov. 6 . .	21.75	7.5

Lacaille 9714—33° 10'.

Nov. 24 . .	23 58 32.22	7.0

33 Piscium—6° 27'.

Nov. 10 . .	23 58 40.79	

Lacaille 9715—39° 35'.

Nov. 13 . .	23 58 40.77	6.0
18 . .	40.85	6.5

Weisse 1196—10° 51'.

Nov. 27 . .	23 58 53.80	9.0
Dec. 1 . .	53.83	9.0

86 Pegasi+12° 40'.

Oct. 28 . .	23 59 1.57	5.5

B. A. C. 8372+57° 42'.

Nov. 14 . .	23 59 28.32	7.0
23 . .	28.65	

B. A. C. 8374+12° 6'.

Oct. 1 . .	23 59 51.74	7.7

MEAN DECLINATIONS FOR 1870.0

OF

STARS OBSERVED

WITH THE

MURAL CIRCLE,

1868.

MEAN DECLINATIONS FOR 1870.0

MURAL CIRCLE.

Weisse XXIII, 1209, 0h. 0m. 7s.

° ′ ″

December 23 . . − 1 57 35.0

Weisse XXIII, 1217, 0h. 0m. 12s.

October 26 . . +12 6 40.5

Weisse XXIII, 1240, 0h. 1m. 7s.

December 23 . . − 2 4 15.3

Lacaille 9735, 0h. 1m. 28s.

October 28 . . −34 15 11.4

O. Arg. S. 9, 0h. 1m. 44s.

October 29 . . −19 56 51.4

Weisse O, 21, 0h. 3m. 13s.

December 25 . . +11 59 17.0

θ Sculptoris, 0h. 5m. 8s.

October 6 . . −35 52 40.5

O. Arg S. 48, 0h. 5m. 36s.

November 19 . . −15 53 18.0

O. Arg. S. 52, 0h. 6m. 3s.

November 5 . . −19 55 6.8

Weisse O, 88, 0h. 6m. 21s.

October 7 . . + 2 13 34.6

Anonymous, 0h. 6m. 35s.

October 23 . . −17 54 24.6
December 23 . . 23.3

Anonymous, 0h. 6m. 37s.

October 23 . . −17 54 28.6
December 23 . . 26.7

Lacaille 5, 0h. 6m. 40s.

November 12 . . −27 2 54.6

Harv. Z., 97, 22, 0h. 6m. 53s.

October 28 . . + 0 7 29.4
November 11 . . 32.5

Weisse O, 97, 0h. 7m. 3s.

November 7 . . + 6 13 0.5

Lacaille 9, 0h. 7m. 10s.

November 12 . . −27 0 30.4

Anonymous, 0h. 7m. 24s.

° ′ ″

October 28 . . + 0 8 49.1
November 11 . . 51.1

Lamont 21, 0h. 7m. 25s.

November 6 . . − 0 45 21.9

Weisse O, 110, 0h. 7m. 50s.

November 9 . . + 2 44 53.0

O. Arg. S. 90, 0h. 9m. 42s.

October 29 . . −15 11 41.3

Groombridge 34, 0h. 10m. 59s.

December 17 . . +43 17 11.8
21 . . 9.0

Anonymous, 0h. 11m. 10s.

December 25 . . − 6 54 34.7

Weisse O, 212, 0h. 13m. 30s.

November 5 . . + 2 18 45.8

Anonymous, 0h. 13m. 43s.

November 11 . . −33 29 20.7

Lacaille 55, 0h. 15m. 7s.

November 6 . . −23 43 32.6
7 . . 29.5
18 . . 27.9

Weisse O, 255, 0h. 15m. 44s.

November 9 . . + 4 30 33.4

Lacaille 60, 0h. 16m. 17s.

November 23 . . −36 6 30.7

Lacaille 62, 0h. 16m. 23s.

November 12 . . −38 7 28.1

Lacaille 66, 0h. 16m. 51s.

October 29 . . −30 34 3.4

Lacaille 72, 0h. 17m. 35s.

November 12 . . −38 7 49.1

B. A. C. 81, 0h. 17m. 50s.

December 9 . . − 2 56 12.9

Anonymous, 0h. 18m. 11s.

° ′ ″

October 26 . . + 7 1 10.4
December 23 . . 11.0

Lacaille 86, 0h. 19m. 43s.

December 17 . . −22 23 32.7

O. Arg. N. 362, (1st *,) 0h. 20m. 9s.

October 28 . . +49 15 56.9
November 6 . 57.4

O. Arg. N. 362, (2d *, 0h. 20m. 11s.

October 28 . . +49 16 6.4
November 6 . . 7.7

Anonymous, 0h. 20m. 47s.

December 21 . . + 1 10 50.9

Weisse O, 337, 0h. 21m. 3s.

November 9 . . + 3 53 17.7

O. Arg. S. 202, 0h. 21m. 4s.

December 25 . . −20 51 15.9

Lacaille 100, 0h. 22m. 20s.

December 25 . . −25 21 20.8

Weisse O, 377, 0h. 23m. 51s.

November 11 . . − 1 5 29.3
18 . . 24.9
23 . . 25.2

49 Piscium, 0h. 24m. 3s.

October 29 . . +15 19 8.6
December 23 . . 11.8

B. A. C. 122, 0h. 24m. 50s.

October 29 . . +15 18 13.5
November 13 . . 17.4

B. A. C. 136, (2d*,) 0h. 27m. 22s.

November 7 . . −35 42 8.1

Lacaille 131, 0h. 27m. 40s.

November 12 . . −33 0 12.4
December 9 . . 7.0

B. A. C. 138, (2d *,) 0h. 27m. 53.

November 5 . . − 5 15 34.6

Weisse O, 466, 0h. 28m. 14s.

° ′ ″

October 28 . . + 3 40 14.5
December 17 . . 16.6

Anonymous, 0h. 28m. 16s.

December 21 . . + 1 5 49.9

Lacaille 142, 0h. 29m. 39s.

November 19 . . −23 33 26.4

ζ Cassiopeæ, 0h. 29m. 48s.

November 9 . . +53 10 52.6

Weisse (2) O, 740, 0h. 29m. 52s.

December 23 . . +26 20 16.7

Anonymous, 0h. 30m. 22s.

December 21 . . + 1 8 27.0

Weisse O, 506, 0h. 30m. 39s.

November 11 . . + 4 19 1.8

Anonymous, 0h. 31m. 57s.

December 25 . . −25 22 41.5

Lacaille 157, 0h. 32m. 22s.

October 29 . . −25 49 19.4

Anonymous, 0h. 32m. 58s.

November 13 . . +55 49 36.6

Weisse O, 544, 0h. 33m. 6s.

November 6 . . + 2 56 12.3

Anonymous, 0h. 33m. 28s.

October 28 . . −18 22 31.8

Lacaille 162, 0h. 33m. 33s.

November 12 . . −34 40 23.4

Weisse O, 556, 0h. 33m. 37s.

December 25 . . + 4 34 3.6

Anonymous, 0h. 33m. 40s.

October 28 . . −18 18 23.5

Anonymous, 0h. 34m. 41s.

November 5 . . − 7 7 5.1

WEISSE O, 588, oh. 35m. 6s.

° ′ ″

November 6 . . + 2 55 45.4

O. ARG. S. 358, oh. 35m. 9s.

October 29 . . −25 54 32.1

ANONYMOUS, oh. 35m. 17s.

December 21 . . + 2 0 57.8

ANONYMOUS, oh. 35m. 24s.

December 17 . . + 2 7 51.7

LACAILLE 181, oh. 36m. 20s.

November 23 . . −36 44 8.2

O. ARG. S. 388, oh. 37m. 58s.

December 9 . . −27 13 55.5

B. A. C. 203, oh. 38m. 17s.

November 9 . . −22 43 18.4

WEISSE O, 664, oh. 39m. 16s.

November 19 . . − 1 30 50.2

ANONYMOUS, oh. 39m. 30s.

December 25 . . − 6 21 19.6

WEISSE O, 674, oh. 39m. 54s.

December 23 . . − 1 32 44.2

58 PISCIUM, oh. 40m. 15s.

November 18 . . +11 15 53.9

WEISSE O, 694, oh. 40m. 58s.

November 11 . . + 2 17 2.6

ANONYMOUS, oh. 41m. 4s.

November 11 . . + 2 11 35.7

η CASSIOPEÆ, oh. 41m. 18s.

November 12 . . +57 7 33.7

LACAILLE 216, oh. 41m. 20s.

October 29 . . −37 38 17.4

LACAILLE 218, oh. 41m. 36s.

October 28 . . −22 25 55.8

WEISSE O, 733, oh. 43m. 19s.

December 21 . . + 6 57 33.0

SANTINI 46, oh. 44m. 36s.

December 9 . . + 2 40 50.4

WEISSE O, 762, oh. 44m. 38s.

December 17 . . − 1 14 34.6
25 . . 35.0

WEISSE O, 772, oh. 44m. 59s.

November 23 . . − 1 11 39.1

WEISSE O, 788, oh. 45m. 59s.

December 21 . . + 6 59 43.2

WEISSE O, 800, oh. 46m. 38s.

° ′ ″

November 5 . . + 4 17 56.5

ANONYMOUS, oh. 46m. 44s.

December 23 . . − 1 28 51.9

ANONYMOUS, oh. 48m. 11s.

November 12 . . − 2 15 40.6

B. A. C. 240, oh. 48m. 33s.

January 1 . . +88 19 29.5

ANONYMOUS, oh. 49m. 45s.

November 18 . . −27 3 12.8

η ANDROMEDÆ, oh. 50m. 17s.

November 9 . . +22 42 54.0

LACAILLE 257, oh. 50m. 29s.

October 29 . . −26 4 5.4

ANONYMOUS, oh. 50m. 30s.

December 23 . . + 2 4 22.8
25 . . 21.5

B. A. C. 269, oh. 51m. 6s.

November 6 . . +12 59 34.1

WEISSE O, 878, oh. 51m. 12s.

December 21 . . + 6 54 29.4

WEISSE O, 891, oh. 52m. 13s.

December 21 . . + 7 1 3.2

B. A. C. 274, oh. 53m. 5s.

November 23 . . + 5 46 57.9

WEISSE O, 917, oh. 53m. 26s.

November 11 . . + 4 11 36.5

WEISSE O, 969, oh. 56m. 4s.

November 6 . . + 1 31 44.3

GROOMBRIDGE 227, oh. 56m. 33s.

January 10 . . +57 16 56.8

ANONYMOUS, oh. 56m. 34s.

December 21 . . −24 34 54.0

RADCLIFFE 317, oh. 56m. 36s.

January 10 . . +57 14 30.5

GROOMBRIDGE 229, oh. 56m. 42s.

January 10 . . +57 20 25.2

O. ARG. S. 596, oh. 57m 3s.

November 12 . . −28 34 43.9

B. A. C. 296, oh. 57m. 5s.

November 23 . . −30 13 24.2

WEISSE O, 1002, oh. 58m. 4s.

November 5 . . + 1 37 4.1
6 . . 2.8

ANONYMOUS, oh. 58m. 14s.

° ′ ″

December 25 . . + 7 11 55.5

28 CETI, oh. 59m. 34s.

January 1 . . −10 32 10.6

B. A. C. 319, 1h. om. 21s.

October 29 . . −36 21 24.6
November 18 . . 21.4

LACAILLE 310, 1h. om. 53s.

November 11 . . −24 41 28.5

ψ² PISCIUM, 1h. 2m. os.

November 9 . . +20 2 49.4

ANONYMOUS, 1h. 2m. 27s.

December 23 . . + 2 4 52.1

ϑ CASSIOPEÆ, 1h. 3m. 12s.

December 9 . . +54 27 57.1

WEISSE I, 15, 1h. 3m. 18s.

November 12 . . + 2 23 14.4

χ PISCIUM, 1h. 4m. 30s.

November 7 . . +20 20 34.0

ANONYMOUS, 1h. 5m. 35s.

December 21 . . +12 20 53.4

WEISSE I, 65, 1h. 6m. 16s.

January 1 . . +11 3 33.0

WEISSE I, 76, 1h. 6m. 58s.

December 17 . . +10 7 24.1

WEISSE I, 88, 1h. 7m. 28s.

November 6 . . − 2 48 13.6

α¹ URSÆ MINORIS, 1h. 10m. 51s.

November 5 . . +88 36 42.4
13 . . 43.1

ANONYMOUS, 1h. 12m. 52s.

December 21 . . + 2 52 25.2

WEISSE I, 188, 1h. 13m. 22s.

December 23 . . +13 5 4.6

LALANDE 2410, 1h. 13m. 46s.

December 17 . . +12 47 7.1

ANONYMOUS, 1h. 13m. 55s.

December 25 . . +22 50 58.8

ξ ANDROMEDÆ, 1h. 14m. 41s.

January 10 . . +44 50 48.2
17 . . 49.3

WEISSE I, 227, 1h. 15m. 36s.

November 12 . . − 2 34 39.7

WEISSE I, 255, 1h. 17m. os.

January 1 . . + 5 49 14.5

LALANDE 2612, 1h. 19m. 47s.

January 13 . . − 1 7 17.0

96 PISCIUM, 1h. 22m. 15s.

November 18 . . + 6 37 21.2

B. A. C. 440, 1h. 21m. 33s.

January 10 . . + 7 17 14.5

WEISSE I, 348, 1h. 21m. 37s.

January 10 . . + 7 17 5.0

LACAILLE 407, 1h. 21m. 46s.

November 6 . . −22 42 42.2

LACAILLE 408, 1h. 21m. 55s.

December 17 . . −27 47 11.1

WEISSE I, 362, 1h. 22m. 27s.

December 21 . . − 6 22 25.2

B. A. C. 454, 1h. 24m. 50s.

January 1 . . +10 13 5.1

LACAILLE 436, 1h. 25m. 57s.

January 17 . . −24 18 51.2

ANONYMOUS, 1h. 26m. 6s.

November 13 . . +15 1 41.5

LACAILLE 438, (1st *), 1h. 26m. 14s.

November 6 . . −27 13 6.5

LACAILLE 438, (2d *), 1h. 26m. 16s.

November 6 . . −27 12 60.4
December 23 . . 58.5

LACAILLE 453, 1h. 28m. 21s.

December 17 . . −28 54 11.5

B. A. C. 477, 1h. 28m. 52s.

December 25 . . +16 46 4.8

LACAILLE 458, 1h. 28m. 57s.

December 23 . . −30 34 48.4

O. ARG. S. 938, 1h. 29m. 4s.

December 23 . . −30 32 31.4

B. A. C. 481, 1h. 29m. 14s.

January 10 . . + 6 58 45.6

LALANDE 2942, 1h. 29m. 33s.

January 13 . . −18 11 26.5

LACAILLE 462, 1h. 30m. 8s.

December 23 . . −30 34 23.4

B. A. C. 491, 1h. 31m. 9s.

January 1 . . −10 4 13.0
November 18 . . 12.6

ANONYMOUS, 1h. 33m. 15s.

November 6 . . +13 48 45.3
December 21 . . 46.1

Anonymous, 1h. 32m. 22s.

° ′ ″
November 6 . . +13 51 5.6
December 21 . . 5.7

Weisse I, 582, 1h. 33m. 50s.

December 17 . . − 2 15 38.4

B. A. C. 494, 1h. 34m. 23s.

January 17 . . +86 17 15.2

Weisse I, 655, 1h. 36m. 52s.

January 10 . . + 5 5 24.1

109 Piscium, 1h. 37m. 49s.

January 13 . . +19 25 58.8

τ Ceti, 1h. 38m. 6s.

January 1 . . −16 37 23.4

Lacaille 509, 1h. 38m. 59s.

November 18 . . −29 22 35.9

Anonymous, 1h. 39m. 12s.

December 23 . . + 2 45 57.9
25 . . 58.3

B. A. C. 539, 1h. 39m. 28s.

November 9 . . − 6 23 6.8

Weisse I, 721, 1h. 40m. 53s.

November 6 . . +13 57 1.2
December 17 . . 2.7

4 Arietis, 1h. 41m. 7.

January 17 . +16 18 28.5

Anonymous, 1h. 41m. 45s.

December 21 . . + 7 0 38.1
25 . . 44.1

Weisse I, 736, 1h. 41m. 50s.

December 21 . . + 7 2 11.8
25 . . 10.8

O. Arg. S. 1116, 1h. 44m. 16s.

January 1 . . −23 25 15.8

Weisse I, 780, 1h. 44m. 31s.

December 23 . . + 7 52 41.7

Weisse I, 819, 1h. 46m. 30s.

November 9 . . − 1 57 21.7

O. Arg. S. 1146, 1h. 46m. 51.

November 6 . . −26 28 6.1

Anonymous, 1h. 49m. 41s.

December 21 . −27 7 44.0
23 . . 41.8

O. Arg. S. 1181, 1h. 50m. 36s.

January 13 . . −18 38 25.1

λ¹ Arietis, 1h. 50m. 41s.

November 18 . . +22 57 40.9

λ² Arietis, 1h. 50m. 41s.

° ′ ″
November 18 . . +22 58 10.1

47 Cassiopeæ, 1h. 52m. 9s.

January 17 . . +76 39 14.5
December 17 . . 16.9

B. A. C. 607, 1h. 52m. 23s.

November 9 . . +20 25 33.1

O. Arg. S. 1210, 1h. 52m. 51s.

January 13 . . −18 41 34.5

Lalande 3702, 1h. 53m. 22s.

November 13 . . −27 3 54.4

O. Arg. S. 1219, 1h. 53m. 23s.

December 25 . . −24 4 12.2

57 Ceti, 1h. 53m. 40s.

January 10 . . −21 27 25.3

O. Arg. S. 1256, 1h. 56m. 41s.

November 6 . . −27 22 9.4

Weisse I, 999, 1h. 57m. 5s.

December 21 . . + 9 28 35.4

O. Arg. S. 1266, 1h. 57m. 27s.

January 1 . . −25 45 10.9

Weisse I, 1018, 1h. 58m. 8s.

January 9 . . + 9 29 29.4
December 21 . . 33.4

Weisse I, 1022, 1h. 58m. 27s.

January 9 . . + 9 27 9.1

B. A. C. 643, 1h. 58m. 40s.

December 17 . . −29 55 19.3

Weisse I, 1040, 1h. 59m. 21s.

December 25 . . + 7 37 35.7

Weisse I, 1043, 1h. 59m. 38s.

January 10 . . +13 57 45.4

Weisse I, 1048, 1h. 59m. 44s.

November 6 . . − 4 59 11.9

Anonymous, 2h. 0m. 15s.

December 23 . . + 3 9 51.8

15 Arietis, 2h. 3m. 26s.

January 24 . . +18 53 10.5

O. Arg. S. 1354, 2h. 3m. 55s.

January 1 . . −29 37 21.9

Weisse II, 35, 2h. 4m. 47s.

November 13 . . + 4 9 13.0
18 . . 12.6

Anonymous, 2h. 5m. 1s.

December 25 . . + 8 17 15.6

Weisse II, 44, 2h. 5m. 8s.

° ′ ″
December 25 . . + 8 17 25.8

O. Arg. S. 1388, 2h. 5m. 55s.

December 23 . . −29 34 5.8

Anonymous, 2h. 6m. 26s.

December 23 . . −29 36 20.7

Weisse II, 81, 2h. 7m. 18s.

January 10 . . + 7 25 41.9

O. Arg. S. 1404, 2h. 7m. 37s.

December 23 . . −29 35 14.8

20 Arietis, 2h. 8m. 19s.

January 24 . . +25 10 42.8

Weisse II, 109, 2h. 8m. 50s.

January 13 . . +15 12 55.1

Lacaille 678, 2h. 9m. 3s.

December 17 . . −24 8 45.5

O. Arg. S. 1424, 2h. 9m. 17s.

January 9 . . −23 53 18.6
17 . . 17.0

O. Arg. S. 1433, 2h. 9m. 47s.

January 1 . . −27 7 41.8
December 21 . . 43.2

θ Arietis, 2h. 10m. 54s.

November 9 . . +19 17 53.7

Weisse II, 155, 2h. 11m. 50s.

December 23 . . +12 23 24.1

B. A. C. 722, 2h. 13m. 9s.

November 6 . . − 4 56 40.4

***i* Persei, 2h. 13m. 18s.**

November 13 . . +55 15 0.0

O. Arg. N. 2680, 2h. 14m. 40s.

December 17 . . +62 5 48.1

69 Ceti, 2h. 15m. 17s.

January 9 . . − 0 11 57.8
13 . . 56.6

70 Ceti, 2h. 15m. 35s.

January 24 . . − 1 28 40.1

Anonymous, 2h. 18m. 17s.

January 10 . . +61 12 55.7

Anonymous, 2h. 19m. 25s.

December 21 . . + 5 42 24.0

O. Arg. S. 1551, 2h. 19m. 51s.

January 1 . . −15 55 36.9

12 Trianguli, 2h. 20m. 35s.

November 9 . . +29 5 15.1

Lacaille 744, 2h. 22m. 27s.

° ′ ″
January 9 . . −27 0 56.1

Anonymous, 2h. 22m. 29s.

January 10 . . +61 13 47.4

Anonymous, 2h. 22m. 46s.

January 10 . . +61 9 19.3
17 . . 20.5

B. A. C. 766, 2h. 23m. 3s.

December 17 . . +24 39 29.1

Weisse II, 373, 2h. 23m. 30s.

December 25 . . +13 40 56.7

B. A. C. 773, 2h. 24m. 0s.

January 24 . . −23 15 45.2

Carrington 347, 2h. 24m. 26.

January 13 . . +88 26 14.7

Weisse II, 397, 2h. 24m. 39s.

December 23 . . + 1 41 32.2

B. A. C. 776, 2h. 24m. 47s.

December 23 . . + 1 41 26.3

75 Ceti, 2h. 25m. 34s.

November 9 . . − 1 36 38.4

Weisse II, 415, 2h. 25m. 52s.

January 22 . . + 3 9 47.8

B. A. C. 790, (1st *,) 2h. 28m. 9s.

December 17 . . −28 48 21.4

B. A. C. 790, (2d *,) 2h. 28m. 9s.

December 17 . . −28 48 15.7

Lacaille 787, 2h. 28m. 41s.

December 25 . . −22 29 52.9

Weisse (2) II, 669, 2h. 28m. 46s.

January 9 . . +38 10 14.1

O. Arg. S. 1655, 2h. 28m. 59s.

January 24 . . −17 51 37.5

B. A. C. 800, 2h. 29m. 41s.

December 21 . . + 7 9 46.7

O. Arg. S. 1664, 2h. 29m. 58s.

January 1 . . −27 15 53.0

B. A. C. 803, 2h. 30. 34s.

December 23 . . −30 36 43.7

Lacaille 802, 2h. 31m. 26s.

January 17 . . −29 33 30.4

B. A. C. 810, 2h. 32m. 4s.

January 13 . . +10 4 35.0

Weisse II, 574 2h. 34m. 5s.

° ′ ″

January 10 . . − 4 16 6.4
24 . . 6.7

μ Arietis, 2h. 35m. 3s.

November 9 . . +19 27 20.9

O. Arg. S. 1744, 2h. 35m. 9s.

January 22 . . −18 22 40.2

O. Arg. S. 1758, 2h. 36m. 18s.

December 21 . . −28 30 22.1

Weisse 615, 2h. 36m. 40s.

January 1 . . +12 44 11.8

Lacaille 838, 2h. 37m. 12s.

December 17 . . −28 42 20.9

B. A. C. 845, 2h. 37m. 56s.

December 23 . . + 9 33 52.4
25 . . 51.1

Weisse II, 639 2h. 38m. 3s.

January 1 . . +12 36 52.4

Lacaille 846, 2h. 38m. 5s.

December 21 . . −28 27 7.9

41 Arietis, 2h. 42m. 19s.

January 10 . . +26 43 23.9

Weisse II, 724, 2h. 43m. 6s.

November 9 . . +13 10 12.0

O. Arg. S. 1834, 2h. 43m. 10s.

December 17 . . −25 9 8.8

Weisse II, 728, 2h. 43m. 19s.

January 9 . . +12 54 29.9
December 23 . . 33.8

Weisse (2) II, 1038, 2h. 43m. 20s.

January 22 . . +15 11 1.6
24 . . 2.6
Differs 15″ from Weisse.

Weisse II, 746, 2h. 44m. 24s.

December 25 . . +12 57 18.6

Lalande 5315, 2h. 45m. 0s.

January 1 . . −23 33 56.8

Lacaille 910, 2h. 47m. 43s.

January 13 . . −22 54 20.6

Anonymous, 2h. 47m. 56s.

January 1 . . −23 40 38.2

Weisse II, 820, 2h. 48m. 9s.

January 31 . . − 0 34 48.0

O. Arg. S. 1887, 2h. 48m. 27s.

December 23 . . −23 28 49.0

Weisse II, 831, 2h. 48m. 35s.

° ′ ″

January 17 . . − 0 5 27.5

Weisse II, 846, 2h. 49m. 16s.

January 17 . . − 0 0 40.4

Weisse II, 853, 2h. 49m. 33s.

January 17 . . − 0 0 16.0

Lacaille 922, 2h. 49m. 47s.

January 22 . . −25 49 50.3

η Eridani, 2h. 50m. 4s.

January 9 . . − 9 25 1.4

Anonymous, 2h. 53m. 4s.

January 13 . . −27 26 52.6
25 . . 55.7

Rumker 767, 2h. 53m. 49s.

December 23 . . + 9 43 38.4

B. A. C. 940. 2h. 53m. 52s.

February 6 . . −25 47 48.0

O. Arg. S. 1968, 2h. 55m. 8s.

January 10 . . −28 9 13.3

Anonymous, 2h. 58m. 24s.

January 9 . . −23 38 55.2

Anonymous, 2h. 59m. 0s.

January 24 . . −34 54 59.0
December 23 . . 57.0

Weisse II, 1066, 3h. 0m. 57s.

January 31 . . +13 46 41.4

Weisse II, 1069, 3h. 0m. 58s.

January 1 . . + 0 54 14.8

Lacaille 983, 3h. 1m. 50s.

January 22 . . −32 51 10.9

Lacaille 988, 3h. 2m. 29s.

January 21 . . −30 48 53.8

B. A. C. 980, 3h. 2m. 43s.

January 10 . . +26 23 50.1

Lalande 5834, 3h. 3m. 1s.

January 17 . . +37 34 28.2

Weisse III, 23. 3h. 3m. 24s.

January 25 . . −10 4 22.3

Weisse III, 56, 3h. 5m. 6s.

Jauuary 24 . . + 4 56 32.6

Lacaille 1004, 3h. 7m. 10s.

January 22 . . −32 53 12.8

Weisse III, 101, 3h. 7m. 17s.

January 9 . . +12 35 10.7
31 . . 13.6

Lacaille 1010, 3h. 7m. 48s.

° ′ ″

February 6 . . −28 3 44.9

B. A. C. 1010, 3h. 9m. 13s.

January 1 . . − 9 15 10.4

ζ Eridani, 3h. 9m. 32.

January 1 . . − 9 18 14.2

Weisse II, 872, 2h. 50m. 30s.

January 17 . . − 0 4 36.4

Weisse II, 881, 2h. 51m. 25s.

January 24 . . +14 37 56.1

Weisse (2) III, 195, 3h. 9m. 51s.

January 13 . . +17 5 34.9

Weisse (2) III, 216, 3h. 11m. 0s.

January 17 . . +17 41 53.7

O. Arg. S. 2173, 3h. 11m. 29s.

January 22 . . −18 52 6.6

15 Eridani, 3h. 12m. 36s.

January 25 . . −22 59 17.2
February 6 . . 15.2

Anonymous, 3h. 13m. 11s.

January 24 . . +22 42 44.3

Weisse III, 240, 3h. 14m. 18s.

January 9 . . − 3 34 49.6

Anonymous, 3h. 15m. 56s.

January 21 . . +24 57 57.5

B. A. C. 1054, 3h. 16m. 40s.

January 22 . . −26 3 16.0

Weisse (2) III, 351, 3h. 17m. 14s.

January 21 . . +24 58 32.7

O. Arg. S. 2237, 3h. 17m. 22s.

Janυary 31 . . −17 54 18.8

ο Tauri, 3h. 17m. 50s.

January 1 . . + 8 34 12.0

B. A. C. 1058, 3h. 18m. 33s.

January 13 . . +59 29 2.5

Weisse III, 316, 3h. 18m. 57s.

January 10 . . + 7 2 18.4

B. A. C. 1063, 3h. 19m. 33s.

January 24 . . +49 23 39.0

Weisse III, 334, 3h. 20m. 8s.

January 25 . . +12 16 46.0

Rumker, N. F., 875, 3h. 23m. 5s.

February 6 . . +12 27 17.2

Groombridge 698, 3h. 23m. 28s.

°

January 31 . . +42 18 12.3

7 Tauri, 3h. 26m. 45s.

January 13 . . +24 1 35.8

Anonymous, 3h. 27m. 17s.

January 10 . . +31 16 3.6

Lacaille 1134, 3h. 28m. 35s.

January 21 . . −31 3 58.5

Lacaille 1137. 3h. 29m. 16s.

February 3 . . −26 1 11.0

9 Tauri, 3h. 29m. 19s.

January 17 . . +22 46 47.5

10 Tauri, 3h. 30m. 14s.

January 25 . . − 0 0 47.1

Anonymous, 3h. 30m. 22s.

January 24 . . +27 42 47.2

Weisse (2) III, 657, 3h. 31m. 53s

January 13 . . +33 41 28.7
17 . . 28.4

Anonymous, 3h. 32m. 14s.

January 31 . . −22 31 25.9

Lacaille 1160, 3h. 32m. 55s.

January 22 . . −31 43 38.3

Radcliffe 1041, 3h. 34m. 47s.

January 9 . . −48 6 25.0
10 . . 27.9

O. Arg. S. 2452, 3h. 35m. 24s.

January 21 . . −28 23 21.3
February 6 . . 16.2

B A. C. 1150, 3h. 37m. 5s.

January 24 . . −32 21 17.1

O. Arg. S. 2495, 3h. 38m. 35s.

January 22 . . −29 2 23.2

B. A. C. 1163, 3h. 39m. 15s.

January 13 . . +24 6 53.3

13 Pleiadum, 3h. 39m. 22s.

January 17 . . +23 35 27.2

Anonymous, 3h. 39m. 35s.

January 25 . . +23 19 12.6
30 . . 16.0

22 Pleiadum, 3h. 39m. 40s.

February 1 . . +23 30 34.9
3 . . 36.2

Anonymous, 3h. 39m. 44s.

January 25 . . +23 16 24.7
30 . . 24.7

			°	′	″
e Tauri, 3h. 41m. 8s.	January	9	−10	44	28.5
27 Tauri, 3h. 41m. 24s.	January	31	+23	39	13.4
B. A. C. 1186, 3h. 42m. 0s.	January	25	+23	18	48.0
		30			48.1
B. A. C. 1188, 3h. 42m. 15s.	February	6	+23	27	5.6
Lalande 7069, 3h. 42m. 41s.	January	21	+ 9	0	32.4
B. A. C. 1195, 3h. 43m. 7s.	February	3	+23	33	56.3
Anonymous, 3h. 44m. 24s.	January	22	−19	8	31.5
Anonymous, 3h. 45m. 10s.	January	24	−32	40	51.8
B. A. C. 1206, 3h. 45m. 42s.	January	10	+16	56	18.5
Lacaille 1252, 3h. 46m. 9s.	February	14	−31	15	50.7
Lacaille 1259, 3h. 47m. 10s.	January	13	−22	39	59.4
		25			60.8
Weisse (2) III, 1015, 3h. 47m. 11s.	January	10	+16	57	30.1
O. Arg. S. 2637, 3h. 48m. 55s.	January	9	−21	4	2.3
	February	3			6.0
Weisse III, 965, 3h. 50m. 24s.	January	22	−10	7	51.8
Lacaille 1291, 3h. 50m. 54s.	January	21	−30	2	22.5
Lacaille 1288, 3h. 50m. 59s.	January	30	−25	33	3.5
Anonymous, 3h. 51m. 11s.	February	1	−18	55	55.5
Weisse III, 975, 3h. 51m. 16s.	January	24	+14	42	45.2
O. Arg. S. 2696, 3h. 52m. 31s.	January	13	−28	14	48.6
		17			47.2
O. S. 2710, 3h. 54m. 12s.	January	31	−29	8	44.0
Anonymous, 3h. 55m. 2s.	January	25	−27	12	13.9
Lacaille 1317, 3h. 55m. 54s.	February	3	−26	52	59.0
Weisse (2) III, 1210, 3h. 57m. 12s.	January	30	+16	16	4.9
Lacaille 1325, 3h. 57m. 20s.	February	14	−27	50	49.8
Anonymous, 3h. 58m. 7s.	February	1	−26	50	25.8
Weisse (2) III, 1266, 3h. 59m. 30s.	January	22	+20	54	36.4
	February	6			39.7
Lacaille 1341, 3h. 59m. 40s.	January	21	−30	34	45.0
O. Arg. S. 2793, 3h. 59m. 48s.	January	21	−30	32	10.7
Weisse (2) III, 1275, 4h. 0m. 5s.	January	22	+20	54	48.0
	February	6			51.7
O. Arg. S. 2796, 4h. 0m. 6s.	January	31	−20	51	57.9
B. A. C. 1273, 4h. 0m. 15s.	January	9	−28	0	31.7
O. Arg. S. 2828, 4h. 2m. 3s.	January	24	−27	45	53.8
		25			55.9
Anonymous, 4h. 2m. 9s.	February	3	− 7	49	52.4
Weisse IV, 22, 4h. 3m. 32s.	January	17	+15	36	20.4
Lalande 7819, 4h. 4m. 34s.	January	30	− 9	9	40.1
	February	1			40.6
Lacaille 1374, 4h. 5m. 9s.	February	7	−34	50	25.7
Lacaille 1373, 4h. 5m. 18s.	January	13	−25	25	60.5
	February	6			59.9
Weisse IV, 81, 4h. 5m. 42s.	January	30	− 9	10	32.7
	February	1			34.4
Anonymous, 4h. 7m. 14s.	February	14	−28	19	3.8
O. Arg. S. 2922, 4h. 8m. 55s.	January	25	−30	26	39.9
Lacaille 1389, 4h. 8m. 56s.	February	3	−32	22	24.0
Weisse (2) IV, 160, 4h. 9m. 40s.	January	22	+20	11	18.6
		24			20.0
Weisse (2) IV, 166, 4h. 9m. 50s.	January	24	+20	14	2.1
Lacaille 1395, 4h. 9m. 57s.	January	25	−30	24	0.8
Weisse IV, 183, 4h. 10m. 29s.	January	17	+17	56	10.4
Anonymous, 4h. 11m. 50s.	February	13	−30	24	23.0
55 Tauri, 4h. 12m. 28s.	January	13	+16	12	25.7
Lacaille 1410, 4h. 13m. 0s.	January	30	−34	30	21.6
	February	6			18.1
Lacaille 1416, 4h. 13m. 55s.	February	6	−34	26	14.2
B. A. C. 1355, 4h. 16m. 6s.	February	1	−26	2	11.6
O. Arg. S. 3022, 4h. 16m. 8s.	February	1	−26	1	37.6
Anonymous, 4h. 16m. 58s.	February	11	+16	31	18.8
Lacaille 1433, 4h. 17m. 13s.	February	3	−35	12	11.7
Anonymous, 4h. 17m. 53s.	January	30	−28	32	33.5
	February	14			27.0
Weisse IV, 363, 4h. 17m. 54s.	February	12	+18	35	1.4
υ Tauri, 4h. 18m. 30s.	January	9	+22	30	56.6
Weisse IV, 387, 4h. 18m. 54s.	February	7	+16	33	19.6
		11			20.3
O. Arg. S. 3061, 4h. 19m. 38s.	January	13	−28	30	25.7
Weisse (2) IV, 420, 4h. 20m. 31s.	January	17	+23	49	33.4
Lacaille 1449, 4h. 20m. 38s.	February	13	−35	58	16.4
θ¹ Tauri, 4h. 21m. 9s.	February	19	+15	40	15.7
Weisse (2) IV, 436, 4h. 21m. 19s.	January	24	+27	6	52.7
		31			53.0
Lacaille 1463, 4h. 22m. 43s.	January	25	−32	40	1.3
Weisse IV, 471, 4h. 23m. 12s.	February	3	−10	45	55.7
		6			56.5
Lalande 8577, 4h. 25m. 16s.	February	7	+23	41	27.9
B. A. C. 1404, 4h. 25m. 16s.	January	21	−30	43	43.9
Weisse (2) IV, 535, 4h. 25m. 46s.	February	1	+19	32	9.4
B. A. C. 1408, 4h. 26m. 30s.	January	17	+28	40	43.0
Weisse IV, 533, 4h. 26m. 32s.	January	22	+14	53	18.9
Weisse IV, 554, 4h. 27m. 14s.	January	31	+ 5	17	37.9
Weisse IV, 572, 4h. 27m. 48.	February	12	+ 0	8	13.0
Anonymous, 4h. 28m. 42s.	January	24	+26	59	16.5
	February	14			15.1
Anonymous, 4h. 29m. 5s.	January	30	−30	50	44.3
	February	13			45.2
Weisse (2) IV, 618, 4h. 29m. 15s.	February	19	+15	36	6.2
υ² Eridani, 4h. 30m. 30s.	January	9	−30	49	49.7
		25			50.7
		30			52.9
B. A. C. 1439, 4h. 31m. 48s.	February	11	−30	58	54.7
Lacaille 1537, 4h. 31m. 51s.	February	6	−38	5	17.2
53 Eridani, 4h. 32m. 13s.	January	21	−14	33	37.5
	February	3			36.2

ANONYMOUS, 4h. 32m. 43s.

° ′ ″
February 1 . . −27 31 22.3
19 . . 18.6

WEISSE IV, 705, 4h. 32m. 58s.

January 22 . . + 7 0 49.4

WEISSE IV, 722, 4h. 34m. 4s.

February 13 . . +14 34 8.6

B. A. C. 1460, 4h. 37m. 13s.

January 25 . . +10 54 6.1

WEISSE IV, 794, 4h. 37m. 24s.

January 31 . . +14 22 59.9

β CŒLI, 4h. 37m. 28s.

January 9 . . −37 23 59.4
21 . . 59.0

O. ARG. S. 3326, 4h. 37m. 47s.

February 3 . . −23 52 29.4
12 . . 26.5

LACAILLE 1564, 4h. 38m. 8s.

February 11 . . −31 0 33.5

WEISSE (2) IV, 866, 4h. 40m. 10s.

February 6 . . +29 32 21.9

O. ARG. S. 3360, 4h. 40m. 30s.

January 22 . . −28 53 46.8
February 7 . . 47.5

WEISSE (2) IV, 886, 4h. 40m. 39s.

February 13 . . +24 30 36.3

LACAILLE 1580, 4h. 40m. 41s.

February 1 . . −25 23 55.5

WEISSE (2) IV, 904, 4h. 41m. 15s.

February 18 . . +24 34 20.7

ANONYMOUS, 4h. 41m. 19s.

February 14 . . +10 44 3.8
19 . . 3.5

ANONYMOUS, 4h. 41m. 21s.

February 19 . . +10 42 46.5

LACAILLE 1595, 4h. 41m. 47s.

February 11 . . −36 2 34.9

ANONYMOUS, 4h. 45m. 5s.

January 22 . . −23 30 54.0

B. A. C. 1496, 4h. 45m. 53s.

January 21 . . +74 3 47.0

ω ERIDANI, 4h. 46m. 30s.

January 9 . . − 5 40 20.8
25 . . 19.2

ANONYMOUS, 4h. 46m. 39s.

February 12 . . + 1 18 40.8

ANONYMOUS, 4h. 47m. 36s.

° ′ ″
February 1 . . −30 52 42.0
7 . . 39.1

B. A. C. 1510, 4h. 48m. 17s.

January 31 . . +73 52 6.4

WEISSE (2) IV, 1079, 4h. 49m. 11s.

January 30 . . +29 58 7.6

O. ARG. S. 3488, 4h. 49m. 17s.

February 13 . . −26 56 32.1

LACAILLE 1652, 4h. 49m. 35s.

February 18 . . −38 22 34.3

O. ARG. S. 3506, 4h. 50m. 10s.

January 22 . . −23 27 19.5

O. ARG. S. 3513, 4h. 50m. 36s.

February 6 . . −27 54 39.3

O. ARG. S. 3516, 4h. 50m. 58s.

January 22 . . −23 29 46.2

ANONYMOUS, 4h. 51m. 4s.

February 3 . . −25 50 49.2
14 . . 47.9

ANONYMOUS, 4h. 54m. 17s.

January 31 . . + 6 3 6.2
February 12 . . 5.6

O. ARG. N. 5439, 4h. 54m. 44s.

February 19 . . +45 35 33.2

O. ARG. S. 3576, 4h. 54m. 53s.

January 21 . . −29 46 20.1

ANONYMOUS, 4h. 56m. 27s.

January 30 . . −31 35 6.4
February 13 . . 10.0

WEISSE (2) IV, 1266, 4h. 56m. 36s.

February 18 . . +21 27 27.5

ANONYMOUS, 4h. 56m. 38s.

January 30 . . −31 35 42.1
February 13 . . 50.7

LACAILLE 1693, 4h. 57m. 10s.

February 1 . . −31 32 12.6
13 . . 12.6

B. A. C. 1562, 4h. 57m. 51s.

January 22 . . +26 14 55.7

LACAILLE 1704, 4h. 58m. 28s.

February 11 . . −24 34 13.1

O. ARG. S. 3630, 4h. 58m. 43s.

February 6 . . −27 50 29.2

γ¹ CŒLI, 4h. 59m. 43s.

January 21 . . −35 39 45.8
February 7 . . 44.9

O. ARG. S. 3662, 5h. 0m. 54s.

° ′ ″
February 12 . . −26 39 54.6

WEISSE IV, 1379, 5h. 1m. 25s.

January 22 . . −12 39 41.1

WEISSE IV, 1394, 5h. 1m. 49s.

January 22 . . −12 45 44.9

O. ARG. S. 3691, 5h. 2m. 32s.

February 14 . . −29 8 54.9

O. ARG. S. 3710, 5h. 3m. 31s.

February 1 . . −25 40 15.1

O. ARG. S. 3717, 5h. 4m. 3s.

February 18 . . −25 22 35.0

O. ARG. S. 3720, 5h. 4m. 5s.

February 3 . . −25 33 13.1

WEISSE V, 48, 5h. 4m. 35s.

February 22 . . +14 12 4.6

WEISSE V, 56, 5h. 4m. 52s.

February 7 . . + 4 10 25.9

ANONYMOUS, 5h. 5m. 19s.

February 18 . . −25 22 28.0

B. A. C. 1615, 5h. 6m. 30s.

January 21 . . −30 23 11.5

12 AURIGÆ, 5h. 6m. 49s.

February 13 . . +46 15 50.8
19 . . 51.2

WEISSE V, 145, 5h. 7m. 50s.

February 11 . . + 2 24 39.0
12 . . 39.1

WEISSE V, 153, 5h. 8m. 14s.

February 12 . . + 2 26 14.1

WEISSE V, 156, 5h. 8m. 18s.

February 12 . . + 2 27 28.0

O. ARG. S. 3790, 5h. 9m. 1s.

February 14 . . −27 27 47.6

LACAILLE 1770, 5h. 10m. 5s.

January 31 . . −28 29 3.7

O. ARG. S. 3812, 5h. 10m. 32s.

February 14 . . −27 32 0.5

WEISSE (2) V, 287, 5h. 11m. 40s.

February 1 . . +30 22 18.5

O. ARG. S. 3846, 5h. 12m. 51s.

January 21 . . −27 37 33.6

ANONYMOUS, 5h. 12m. 56s.

February 11 . . −25 23 24.6
13 . . 28.2

ANONYMOUS, 5h. 12m. 57s.

February 11 . . −25 25 15.7
13 . . 19.6

O. ARG. S. 3862, 5h. 13m. 41s.

February 6 . . −29 0 30.2
22 . . 34.6

LACAILLE 1806, 5h. 15m. 41s.

February 18 . . −29 20 18.3

B. A. C. 1670, (1st *), 5h. 16m. 25s.

February 12 . . −24 54 2.3

B. A. C. 1670, (2d *), 5h. 16m. 27s.

February 12 . . −24 54 18.8

B. A. C. 1673, 5h. 16m. 35s.

February 7 . . −34 28 25.8

WEISSE (2) V, 452, 5h. 17m. 15s.

February 19 . . +30 33 59.0

γ ORIONIS, 5h. 18m. 9s.

January 25 . . + 6 13 46.5

O. ARG. S. 3917, 5h. 18m. 12s.

February 1 . . −16 10 48.2

LACAILLE 1827, 5h. 18m. 20s.

February 3 . . −31 52 13.1

O. ARG. S. 3920, 5h. 18m. 24s.

January 31 . . −16 9 51.1

WEISSE (2) V, 530, 5h. 19m. 49s.

February 19 . . +30 31 52.5

o TAURI, 5h. 19m. 50s.

February 28 . . +21 49 24.1
March 4 . . 23.7

SCHJELLERUP 1787, 5h. 21m. 4s.

February 6 . . − 0 22 14.3

LACAILLE 1844, 5h. 21m. 21s.

January 21 . . −32 36 57.5
February 13 . . 50.4

ANONYMOUS, 5h. 22m. 49s.

February 7 . . −29 41 0.9

WEISSE (2) V, 630, 5h. 22m. 57s.

February 14 . . +26 28 52.5

ANONYMOUS, 5h. 23m. 19s.

February 11 . . +26 36 55.1

ANONYMOUS, 5h. 23m. 22s.

February 18 . . −29 28 2.0

ANONYMOUS, 5h. 23m. 27s.

February 18 . . −29 27 29.0

Anonymous, 5h. 25m. 7s.

° ′ ″

February 3 . . −28 32 21.9

Anonymous, 5h. 25m. 57s.

February 28 . . −28 37 56.2

March 4 . . 57.4

Lalande 10426, 5h. 25m. 59s.

January 31 . . − 0 5 3.2

February 12 . . 3.3

Rumker 1473, 5h. 27m. 41s.

February 13 . . +21 6 58.0

Struve, C. G., 599, 5h. 28m. 37s.

February 13 . . +21 5 56.6

ϑ¹ Orionis, (1st *,) 5h. 28m. 53s.

February 19 . . − 5 28 32.4

ϑ¹ Orionis, (2d *,) 5h. 28m. 53s.

February 19 . . − 5 28 41.1

ϑ¹ Orionis, (3d *,) 5h. 28m. 53s.

February 19 . . − 5 28 34.2

Anonymous, 5h. 29m. 43s.

February 14 . . +26 38 26.1

Anonymous, 5h. 29m. 55s.

February 7 . . − 1 19 11.7

O. Arg. S. 4102, 5h. 30m. 13s.

February 22 . . −27 15 15.0

Lacaille 1906, 5h. 30m. 58s.

February 1 . . −30 37 11.9

B. A. C. 1775, 5h. 31m. 5s.

February 6 . . −28 47 27.2

Weisse V, 776, 5h. 31m. 37s.

February 3 . . − 1 14 53.9

B. A. C. 1783, 5h. 32m. 7s.

February 12 . . −27 56 55.0

O. Arg. S. 4142, 5h. 32m. 31s.

February 11 . . −31 10 62.7

18 . . 59.7

B. A. C. 1786, 5h. 32m. 35s.

February 6 . . −28 42 14.0

Lacaille 1916, 5h. 32m. 36s.

February 11 . . −31 8 26.4

18 . . 25.5

B. A. C. 1787, 5h. 32m. 40s.

February 6 . . −28 46 8.0

ζ Orionis, 5h. 34m. 12s.

January 25 . . − 2 0 48.3

Anonymous, 5h. 35m. 44s.

° ′ ″

March 4 . . −25 34 32.8

B. A. C. 1809, 5h. 36m. 42s.

February 22 . . −33 27 59.5

Lacaille 1960, 5h. 37m. 10s.

February 29 . . −27 46 16.8

B. A. C. 1812, 5h. 37m. 13s.

February 1 . . −30 36 1.5

Lacaille 1967, 5h. 38m. 13s.

February 13 . . −34 1 10.5

19 . . 9.8

O. Arg. S. 4264, 5h. 39m. 4s.

February 14 . . −27 36 12.0

Anonymous, 5h. 39m. 7s.

February 11 . . −30 40 8.2

O. Arg. S. 4263, 5h. 39m. 8s.

February 28 . . −20 45 15.2

Lacaille 1977, 5h. 40m. 21s.

February 3 . . −31 43 28.0

7 . . 25.6

O. Arg. S. 4294, 5h. 40m. 21s.

February 14 . . −27 32 18.7

Rumker 1576, 5h. 41m. 26s.

January 31 . . +23 34 53.4

February 12 . . 49.4

Lacaille 1993, 5h. 42m. 44s.

February 18 . . −35 43 25.6

O. Arg. S. 4355, 5h. 44m. 22s.

February 1 . . −26 23 20.0

13 . . 18.8

Lacaille 2015, 5h. 45m. 22s.

February 11 . . −32 50 51.3

19 . . 51.6

Lacaille 2018, 5h. 46m. 1s.

March 3 . . −22 57 38.9

Weisse V, 1176, 5h. 46m. 38s.

March 4 . . −14 35 23.4

Lacaille 2033, 5h. 46m. 59s.

February 2 . . −29 28 55.8

Weisse V, 1220, 5h. 48m. 49s.

February 3 . . − 4 4 43.2

Anonymous, 5h. 49m. 12s.

January 12 . . + 7 17 48.9

139 Tauri, 5h. 49m. 56s.

January 25 . . +25 56 5.5

February 28 . . 6.9

β Aurigæ, 5h. 49m. 59s.

° ′ ″

February 7 . . +44 55 50.5

March 13 . . 52.7

O. Arg. N. 6356, 5h. 50m. 12s.

February 18 . . +72 23 39.6

O. Arg. S. 4453, 5h. 50m. 32s.

February 11 . . −28 58 32.5

O. Arg. S. 4457, 5h. 50m. 35s.

February 1 . . −29 9 31.4

Anonymous, 5h. 50m. 38s.

February 22 . . −29 56 28.3

Anonymous, 5h. 50m. 39s.

February 22 . . −29 58 48.4

Anonymous, 5h. 50m. 44s.

January 31 . . + 7 18 13.1

Anonymous, 5h. 50m. 52s.

February 13 . + 7 21 6.7

Anonymous, 5h. 53m. 12s.

February 14 . . +23 19 49.4

Lalande 11343, 5h. 53m. 14s.

February 14 . . +23 17 47.1

Weisse V, 1368, 5h. 54m. 6s.

March 3 . . −13 58 15.9

4 . . 18.1

Lacaille 2092, 5h. 54m. 30s.

February 29 . . −33 49 48.6

B. A. C. 1879, 5h. 54m. 40s.

February 19 . . +86 45 41.8

March 13 . . 42.5

μ Orionis, 5h. 55m. 13s.

January 25 . . + 9 38 39.4

O. Arg. S. 4534, 5h. 55m. 22s.

February 28 . . −27 53 40.8

Lacaille 2107, 5h. 56m. 57s.

February 11 . . −27 25 30.6

Rumker 1700, 5h. 58m. 17s.

February 18 . . +26 32 0.4

Anonymous, 5h. 58m. 32s.

February 1 . . −14 49 8.1

13 . . 9.8

Anonymous, 5h. 58m. 59s.

February 22 . . +20 8 23.1

Lacaille 2124, 5h. 59m. 32s.

January 30 . . −32 10 16.2

February 3 . . 16.1

Weisse V, 1530, 6h. 0m. 12s.

° ′ ″

February 29 . . − 4 10 57.2

Weisse (2) V, 1980, 6h. 0m. 24s.

February 19 . . +25 58 52.6

Lacaille 2130, 6h. 1m. 7s.

February 22 . . −29 44 42.9

O. Arg. S. 4680, 6h. 2m. 28s.

March 3 . . −30 36 39.4

Weisse VI, 73, 6h. 4m. 13s.

February 7 . . − 9 19 52.9

Lacaille 2163, 6h. 4m. 36s.

February 11 . . −31 0 8.2

Anonymous, 6h. 5m. 2s.

February 13 . . +21 29 30.7

18 . . 32.8

Lacaille 2178, 6h. 5m. 55.

February 12 . . −34 47 29.6

19 . . 28.2

Lacaille 2177, 6h. 6m. 18s.

January 30 . . −27 1 46.4

February 1 . . 47.3

Lacaille 2180, 6h. 6m. 53s.

March 13 . . −26 1 12.3

71 Orionis, 6h. 7m. 12s.

January 25 . . +19 11 53.3

Lacaille 2189, 6h. 7m. 55s.

February 22 . . −28 25 50.8

B. A. C. 2014, 6h. 8m. 49s.

February 14 . . +35 11 21.4

Anonymous, 6h. 9m. 54s.

March 3 . . −28 10 16.6

4 . . 13.5

l Orionis 6h. 9m. 56s.

February 11 . . + 9 59 12.2

22 . . 9.9

B. A. C. 2021, 6h. 10m. 10s.

February 14 . . +35 15 20.5

Lacaille 2211 6h. 12m. 2s.

February 29 . . −26 53 14.5

Weisse (2) VI, 301, 6h. 12m. 49s.

February 7 . . +44 28 1.8

Anonymous, 6h. 13m. 11s.

January 30 . . −28 55 37.5

February 13 . . 39.5

			° ′ ″
WEISSE (2) VI, 328, 6h. 13m. 23s.	February	12	+32 0 7.6
ANONYMOUS, 6h. 15m. 17s.	February	18	−29 33 31.4
LACAILLE 2232, 6h. 15m. 54s.	February	18	−29 36 37.8
B. A. C. 2060, 6h. 16m. 53s.	February	1	+ 4 39 35.9
		11	34.6
8 MONOCEROTIS, 6h. 16m. 53s.	February	1	+ 4 39 21.9
		11	22.1
O. ARG. N. 6888, 6h. 19m. 1s.	February	7	+46 25 42.2
LACAILLE 2262, 6h. 19m. 40s.	February	19	−28 42 21.2
48 AURIGÆ, 6h. 20m. 13s.	January	30	+30 34 13.0
ANONYMOUS, 6h. 21m. 45s.	January	21	+25 30 50.3
WEISSE (2) VI, 631, 6h. 22m. 51s.	January	21	+25 30 33.4
O. ARG. S. 5176, 6h. 23m. 52s.	February	3	−25 48 10.1
		19	7.1
		28	6.1
O. ARG. S. 5198, 6h. 24m. 49s.	February	19	−25 47 47.7
		28	49.9
O. ARG. S. 5199, 6h. 24m. 50s.	February	19	−25 48 8.9
		28	9.0
ANONYMOUS, 6h. 25m. 38s.	January	30	−29 56 15.5
ξ^1 CANIS MAJORIS, 6h. 26m. 26s.	March	3	−23 19 38.1
ANONYMOUS, 6h. 27m. 0s.	February	7	−31 9 25.9
49 AURIGÆ, 6h. 27m. 0s.	February	13	+28 7 13.1
		18	14.3
LALANDE 12614, 6h. 28m. 22s.	February	12	+16 32 52.1
O. ARG. S. 5289, 6h. 28m. 25s.	February	3	−26 13 57.1
WEISSE (2) VI, 838, 6h. 29m. 28s.	February	29	+24 41 44.5
			′ ″
ANONYMOUS, 6h. 29m. 53s.	February	1	−29 59 28.0
		11	27.5
O. ARG. S. 2343, 6h. 30m. 43s.	February	13	−24 0 49.3
WEISSE (2) VI, 891, 6h. 30m. 50s.	February	12	+16 30 58.9
		14	60.9
WEISSE (2) VI, 909, 6h. 31m. 32s.	January	21	+24 42 29.7
	February	29	31.7
O. ARG. S. 5410, 6h. 32m. 50s.	February	19	−27 41 14.0
LACAILLE 2372, 6h. 32m. 52s.	February	18	−28 23 8.7
	March	4	5.9
O. ARG. S. 5434, 6h. 33m. 40s.	February	19	−27 37 41.5
B. A. C. 2185, 6h. 33m. 50s.	February	28	+10 0 50.2
O. ARG. S. 5450, 6h. 34m. 12s.	March	13	−23 34 44.3
ANONYMOUS, 6h. 34m. 19s.	February	7	−28 19 28.5
		18	29.8
O. ARG. S. 5463, 6h. 34m. 31s.	March	13	−23 35 11.2
LACAILLE 2388, 6h. 34m. 47s.	January	30	−30 20 51.0
O. ARG. S. 5519, 6h. 36m. 29s.	February	11	−27 45 26.6
O. ARG. S. 5543, 6h. 37m. s.	March	3	−23 13 32.0
ξ GEMINORUM, 6h. 37m. 58s.	January	21	+13 1 (58.2)
WEISSE (2) VI, 1163, 6h. 38m. 44s.	February	29	+23 57 57.5
ANONYMOUS, 6h. 39m. 6s.	January	21	+13 4 38.5
LACAILLE 2434, 6h. 40m. 4s.	February	18	−30 27 12.4
B. A. C. 2210, 6h. 41m. 3s.	February	13	+77 8 11.6
		28	9.1
O. ARG. N. 7274, 6h. 41m. 41s.	February	12	+52 8 16.8
			° ′ ″
LACAILLE 2488, (1st *) 6h. 42m. 21s.	January	30	−28 25 5.2
LACAILLE 2488, (2d *) 6h. 42m. 23s.	January	30	−28 25 59.0
O. ARG. S. 5704, 6h. 42m. 43s.	February	7	−26 23 34.4
O. ARG. N. 7298, 6h. 43m. 12s.	February	22	+51 40 15.4
	March	13	14.0
LACAILLE 2454, 6h. 43m. 28s.	March	3	−28 4 11.5
O. ARG. S. 5725, 6h. 43m. 29s.	March	3	−28 13 31.5
O. ARG. N. 7308, 6h. 43m. 38s.	March	13	+51 38 53.5
ANONYMOUS, 6h. 44m. 41s.	February	11	−32 23 41.8
κ CANIS MAJORIS, 6h. 44m. 59s.	February	11	−32 21 37.3
O. ARG. S. 5772, 6h. 45m. 9s.	March	4	−27 9 29.7
LACAILLE 2480, 6h. 45m. 26s.	February	19	−33 44 11.4
ANONYMOUS, 6h. 47m. 8s.	February	12	−30 16 21.7
ANONYMOUS, 6h. 47m. 9s.	February	1	−28 28 48.9
LACAILLE 2494, 6h. 47m. 18s.	February	19	−33 45 45.6
θ CANIS MAJORIS, 6h. 48m. 10s.	February	13	−11 52 40.8
		18	40.8
B. A. C. 2266, 6h. 48m. 23s.	January	21	−28 21 53.1
ANONYMOUS, 6h. 49m. 14s.	February	29	−28 48 5.8
LACAILLE 2519, 6h. 49m. 28s.	January	30	−31 38 21.5
LACAILLE 2526, 6h. 50m. 33s.	February	7	−25 21 6.9
LACAILLE 2528, 6h. 51m. 0s.	January	30	−31 37 23.9
	March	3	21.6
ANONYMOUS, 6h. 51m. 32s.	March	4	−24 47 57.9
ANONYMOUS, 6h. 53m. 42s.	February	11	−26 5 18.5
LACAILLE 2562, 6h. 54m. 41s.	February	12	−29 31 28.1
LACAILLE 2566, 6h. 55m. 12s.	February	18	−30 57 45.
ANONYMOUS, 6h. 55m. 15s.	February	1	30 53 23.7
LACAILLE 2579, 6h. 56m. 11s.	March	13	−30 28 57.
LACAILLE 2577, 6h. 56m. 18s.	March	3	−27 2 19.0
22 CANIS MAJORIS, 6h. 56m. 32s.	February	7	−27 44 59.5
WEISSE (2) VI, 1728, 6h. 58m. 24s.	February	13	+42 56 12.7
WEISSE (2) VI, 1747, 6h. 58m. 26s.	January	21	+22 52 52.2
	February	29	55.4
O. ARG. S. 6164, 6h. 59m. 23s.	January	30	−30 34 55.4
	February	11	56.6
O. ARG. S. 6232, 7h. 1m. 44s.	February	7	+26 27 20.1
	March	4	20.2
ANONYMOUS, 7h. 2m. 10s.	February	18	−26 8 37.2
LACAILLE 2623, 7h. 2m. 18s.	February	1	−26 9 27.5
O. ARG. S. 6262, 7h. 2m. 43s.	January	21	−26 4 42.0
LACAILLE 2647, 7h. 5m. 5s.	February	29	−27 17 22.4
22 MONOCEROTIS, 7h. 5m. 12s.	March	3	− 0 16 46.0
O. ARG. N. 7623, 7h. 5m. 27s.	March	4	+78 29 26.8
O. ARG. S. 6343, 7h. 5m. 31s.	February	11	−30 27 6.7
ANONYMOUS, 7h. 6m. 38s.	January	30	−14 16 31.9
26 CANIS MAJORIS, 7h. 6m. 54s.	February	13	−25 43 39.1
LACAILLE 2659, 7h. 7m. 10s.	February	29	−27 15 26.6

Anonymous, 7h. 8m. 31s.
′ ″
January 30 . . −14 20 12.8

B. A. C. 2393, 7h. 9m. 35s.
January 21 . . −26 48 47.5
February 18 . . 46.5

O. Arg. S. 6490, 7h. 10m. 7s.
February 1 . . −28 8 23.0

O. Arg. N. 7753, 7h. 10m. 30s.
March 13 . . +60 13 29.3

Anonymous, 7h. 11m. 54s.
February 11 . . −29 29 56.8

O. Arg. S. 6553, 7h. 11m. 55s.
March 3 . . −30 39 52.1

O. Arg. S. 6554, 7h. 11m. 55s.
March 3 . . −30 40 31.1

O. Arg. S. 6600, 7h. 13m. 33.
March 4 . . −26 20 57.4
23 . . 60.2

O. Arg. S. 6666, 7h. 15m. 43s.
January 21 . . −27 54 30.1
30 . . 29.2

O. Arg. S. 6678, 7h. 16m. 16s.
January 21 . . −27 56 53.4

Lacaille 2762, 7h. 17m. 24s.
February 13 . . −25 45 51.0

Anonymous, 7h. 17m. 37s.
February 1 . . −30 59 52.3

ς Puppis, 7h. 18m. 3s.
March 16 . . −31 40 30.1

Anonymous, 7h. 18m. 32s.
February 1 . . −31 2 58.1

O. Arg. S. 6748, 7h. 18m. 44s.
February 18 . . −29 2 19.9

η Canis Majoris, 7h. 18m. 56s.
February 18 . . −29 3 5.9

O. Arg. S. 6762, 7h. 19m. 8s.
February 11 . . −18 45 34.3

B. A. C. 2455, 7h' 19m. 10s.
March 13 . . +21 47 35.6

O. Arg. S. 6810, 6h. 20m. 47s.
February 7 . . −26 31 60.0
March 4 . . 58.1

Lacaille 2814, 7h. 22m. 38s.
February 13 . . −28 6 31.5

Lacaille 2813, 7h. 22m. 43s.
° ′ ″
February 7 . . −26 34 32.8
March 4 . . 31.1

Lacaille 2824, 7h. 23m. 51s.
January 30 . . −37 32 36.5

O. Arg. S. 6907, 7h. 24m. 10s.
March 3 . . −30 22 38.5

O. Arg. S. 6941, 7h. 25m. 14s.
February 11 . . −28 34 50.8

O. Arg. S. 6946, 7h. 25m. 18s.
February 11 . . −28 33 59.7

O. Arg. S. 7026, 7h. 27m. 50s.
February 13 . . −28 2 52.0

O. Arg. S. 7063, 7h. 29m. 37s.
March 23 . . −29 7 32.9

Anonymous, 7h. 30m. 24s.
March 13 . . −29 42 52.1

O. Arg. S. 7100, 7h. 30m. 48s.
January 30 . . −29 4 16.4
March 16 . . 17.9

O. Arg. S. 7167, 7h. 33m. 8s.
February 7 . . −31 9 34.5

Anonymous, 7h. 33m. 57s.
February 18 . . + 5 29 40.0

Anonymous, 7h. 33m. 59s.
March 3 . . −23 56 29.5

Anonymous, 7h. 34m. 35s.
February 13 . . +21 16 43.0

Lalande 15006, 7h. 35m. 20s.
March 3 . . −23 58 26.7

Weisse (2) VII, 1022, 7h. 35m. 32s.
February 13 . . +21 12 27.0

Lacaille 2916, 7m. 35h. 49s.
March 23 . . −31 21 36.2

Lacaille 2923, 7h. 37m. 26s.
March 4 . . −26 2 37.9

Lalande 15079, 7h. 37m. 54s.
February 22 . . −11 0 46.5

Lalande 15073, 7h. 38m. 28s.
March 13 . . +21 25 34.7

Lacaille 2941, 7h. 39m. 6s.
March 23 . . −31 22 12.6

Weisse VII, 1232, 7h. 41m. 12.
February 7 . . −11 52 59.8
March 16 . . 58.5

5 Puppis, 7h. 41m. 51s.
° ′ ″
February 7 . . −11 52 31.0

Weisse VII, 1259, 7h. 42m. 25s.
March 16 . . −11 53 48.6

Lacaille 3006, 7h. 44m. 39s.
February 13 . . −32 57 47.9

9 Puppis, 7h. 45m. 45s.
February 11 . . −13 33 17.0

Weisse (2) VII, 1305, 7h. 46m. 35s.
March 13 . . +21 26 30.0

Weisse VII, 1371, 7h. 46m. 55s.
February 29 . . +13 45 31.4

Anonymous, 7h. 46m. 58s.
January 30 . . −26 5 45.7
February 18 . . 46.9

Anonymous, 7h. 47m. 42s.
January 30 . . −26 4 45.7
February 18 . . 46.2

Anonymous, 7h. 49m. 16s.
February 22 . . +12 5 28.4
March 16 . . 29.6

Anonymous, 7h. 49m. 38s.
February 18 . . −26 7 45.5

(* 133) W., 7h. 49m. 46s.
February 22 . . +12 1 52.8
March 16 . . 56.6

Anonymous, 7h. 49m. 53s.
January 30 . . −26 5 5.2
February 18 . . 3.6

O. Arg. N. 8459, 7h. 50m. 20s.
March 4 . . +46 58 10.5

Lacaille 3072, 7h. 51m. 4s.
February 13 . . −29 56 24.1

Lacaille, 3078, 7h. 52m. 8s.
February 11 . . −34 1 57.3

O. Arg. S. 7769, 7h. 53m. 34s.
March 13 . . −27 33 18.4

O. Arg. S. 7798, 7h. 54m. 48s.
February 13 . . −30 1 19.6

Weisse (2) VI, 1520, 7h. 55m. 52s.
February 29 . . +28 9 24.7

O. Arg. S. 7865, 7h. 56m. 53s.
March 4 . . −25 42 15.0

O. Arg. S. 7882, 7h. 57m. 38s.
February 11 . . −24 14 24.4

Anonymous, 7h. 58m. 17s.
′ ″
March 4 . . −25 39 31.7

Anonymous, 7h. 59m. 14s.
February 13 . . − 5 19 12.2

Anonymous, 7h. 59m. 14s.
March 16 . . +37 49 50.6

Weisse VII, 1752, 8h. 0m. 26s.
February 18 . . +14 44 5.4
March 13 . . 6.1

Weisse VII, 1763, 8h. 0m. 45.
February 18 . . +14 43 32.0
22 . . 35.0

Lacaille 3168, 8h. 3m. 52s.
April 3 . . −37 18 11.8

Anonymous, 8h. 6m. 45s.
February 11 . . −28 36 55.5
13 . . 57.3

Lacaille 3201, 8h. 7m. 26s.
February 29 . . −41 24 0.6

O. Arg. S. 8225, 8h. 7m. 42s.
March 3 . . −23 54 7.8

57 Camelopardi, 8h. 7m. 57s.
March 13 . . +62 54 20.4

β Cancri, 8h. 9m. 28s.
April 8 . . + 9 35 3.9

30 Lyncis, 8h. 9m. 55s.
February 22 . . +58 8 45.7

Weisse VIII, 221 8h. 11m. 28s.
March 16 . . +20 22 45.8

O. Arg. S. 8338, 8h. 12m. 10s.
February 18 . . −24 58 16.0

O. Arg. S. 8345, 8h. 12m. 22s.
February 18 . . −24 57 34.9

B. A. C. 2790, 8h. 12m. 41s.
February 29 . . −29 36 3.5

Lacaille 3257, 8h. 13m. 21s.
February 11 . . −35 2 52.3

Lacaille 3258, 8h. 13m. 23s.
April 3 . . −36 58 16.6

31 Lyncis, 8h. 13m. 56s.
March 13 . . +43 36 10.7

Lacaille 3262, 8h. 14m. 28s.
March 3 . . −34 10 56.5

Lacaille 3272, 8h. 14m. 55s.
April 3 . . −37 0 37.5

ϖ Puppis, 8h. 16m. 17s.

February 13 . . −32 38 36.6

B. A. C. 2787, 8h. 17m. 0s.

March 4 . . +85 30 19.3

Lalande 16464, 8h. 17m. 39s.

February 22 . . +23 58 9.5

Lacaille 3293, 8h. 18m. 8s.

April 8 . . −27 23 40.1

Lacaille 3302, 8h. 18m. 51s.

February 11 . . −32 28 42.5

Anonymous, 8h. 19m. 8s.

February 18 . . −27 24 50.7

Weisse (2) VIII, 440, 8h. 19m. 46s.

March 13 . . +19 43 24.3

Lacaille 3312, 8h. 19m. 58s.

March 3 . . −31 31 8.6

Anonymous, 8h. 20m. 7s.

March 4 . . +40 23 38.7

B. A. C. 2838, 8h. 21m 20s.

February 29 . . −41 43 43.6

B. A. C. 2843, 8h. 22m. 3s.

February 13 . . −31 14 44.3

O. Arg. S. 8581, 8h. 22m. 45s.

March 16 . . −27 8 8.0

Anonymous, 8h. 23m. 59s.

April 3 . . −26 54 1.1

Anonymous, 8h. 25m. 48s.

February 13 . . −31 18 35.0

Anonymous, 8h. 26m. 0s.

March 13 . . −19 47 48.7

O. Arg. S. 8697, 8h. 27m. 43.

March 3 . . −23 44 28.1
(Differs 10s. from Argelander.)

B. A. C. 2886, 8h. 28m. 17s.

February 22 . . +20 13 3.9

Anonymous, 8h 28m. 59s.

February 29 . . −26 39 12.7
March 16 . . 13.3

Anonymous, 8h. 29m. 59s.

April 3 . . −30 50 19.9

Weisse (2) VIII, 708, 8h. 30m. 9s.

February 22 . . +20 11 0.2

Weisse (2) VIII, 713, 8h. 30m. 12s.

February 11 . . +19 58 14.3

Anonymous, 8h. 30m. 54s.

February 13 . . +20 39 34.2
18 . . 34.0

Lacaille 3419, 8h. 30m. 59s.

April 3 . . −30 53 22.3

Groombridge 1452, 8h. 31m. 53s.

April 8 . . +80 28 43.2

Anonymous, 8h. 32m. 14s.

March 4 . . +20 32 32.0

38 Cancri, 8h. 32m. 15s.

February 22 . . +20 14 4.9

Weisse (2) VIII, 790, 8h. 32m. 28s.

February 7 . . +20 0 36.2
11 . . 33.8

Weisse (2) VIII, 793, 8h. 32m. 30s.

February 11 . . +19 59 54.1

Anonymous, 8h. 32m. 30s.

February 13 . . +20 36 51.6
18 . . 51.9

ι Cancri, 8h. 32m. 59s.

February 7 . . +20 0 9.7

B. A. C. 2925, 8h. 33m. 28s.

February 11 . . +20 2 20.7

Anonymous, 8h. 34m. 25s.

February 13 . . +20 37 15.6

Anonymous, 8h. 54m. 53s.

February 18 . . +20 38 38.5

O. Arg. S. 8852, 8h. 34m. 56s.

February 29 . . −26 47 53.3

b Mali, 8h. 35m. 0s.

March 3 . . −34 50 51.0

44 Cancri, 8h. 35m. 45s.

March 16 . . +18 36 52.9

B. A. C. 2930, 8h. 36m. 17s.

April 8 . . +80 30 36.3

Weisse VIII, 936, 8h. 36m. 41s.

March 13 . . +14 5 25.3

δ Cancri, 8h. 37m. 17s.

March 16 . . +18 37 49.9

Anonymous, 8h. 38m. 22s.

April 3 . . −32 41 21.2

a Mali, 8h. 38m. 23s.

April 3 . . −32 43 12.6

O. Arg. S. 8946, 8h. 39m. 50s.

February 11 . . −27 5 54.4

Lacaille 3509, 8h. 40m. 37s.

April 8 . . −26 8 20.4

O. Arg. S. 8993, 8h. 41m. 49s.

February 18 . . −27 17 26.7
March 3 . . 21.5

Anonymous, 8h. 43m. 45s.

February 29 . . −37 31 22.7

Weisse (2) VIII, 1095, 8h. 44m. 49s.

March 16 . . +27 30 7.5

Anonymous, 8h. 45m, 2s.

February 13 . . −42 20 31.6

Anonymous, 8h. 46m. 29s.

April 3 . . −29 52 16.8

Anonymous, 8h. 47m. 30s.

February 18 . . −31 51 26.6

B. A. C. 3031, 8h. 48m. 27s.

April 8 . . +14 40 35.5

B. A. C. 3070, 8h. 53m. 46s.

February 29 . . −28 18 8.9

Anonymous, 8h. 54m. 6s.

February 13 . . −34 48 17.6

B. A. C. 3076, 8h. 54m. 40s.

February 22 . . + 6 8 57.0
March 16 . . 55.9

B. A. C. 3078, 8h. 54m. 58s.

February 22 . . + 6 9 40.7
March 16 . . 39.7

O. Arg. S. 9243, 8h. 55m. 9s.

February 18 . . −23 38 49.1

Anonymous, 8h. 55m. 31s.

March 3 . . −27 0 27.4

Anomymous, 8h. 56m. 30s.

April 3 . . −27 18 10.0
8 . . 5.6

O. Arg. S. 9321, 8h. 59m. 20s.

February 18 . . −23 40 21.6

O. Arg. S. 9344, 9h. 0m. 45s.

February 18 . . −23 38 19.0

Carrington 1325; 9h. 1m. 34s.

April 8 . . +81 55 20.5

78 Cancri, 9h. 1m. 46s.

March 16 . . +17 59 41.3

Anonymous, 9h. 1m. 50s.

February 13 . . +23 30 18.8

ξ Cancri, 9h. 1m. 52s.

February 29 . . +22 34 13.6
April 17 . . 10.4

Anonymous, 9h. 1m. 53s.

April 3 . . −31 23 35.5

20 Hydræ, 9h. 3m. 18s.

March 3 . . − 8 15 41.0

Carrington 1338, 9h. 5m. 40s.

April 8 . . +81 49 23.9

Lacaille 3718, 9h. 6m. 48s.

April 11 . . −28 24 56.6

π^2 Cancri, 9h. 8m. 4s.

March 16 . . +15 28 48.7

O. Arg. S. 9489, 9h. 8m. 11s

February 29 . . −27 33 16.3

O. Arg. S. 9496, 9h. 8m. 30s.

February 29 . . −27 34 51.7

Weisse IX, 153, 9h. 8m. 51s.

March 19 . . + 5 40 1.3

Anonymous, 9h. 10m. 17s.

February 13 . . −27 39 53.3
April 17 . . 51.0

O. Arg. S. 9522, 9h. 10m. 19s.

March 3 . . −26 30 19.3

Lacaille 3751, 9h. 10m. 32s.

April 3 . . −28 20 49.5
11 . . 46.0

Weisse (2) IX, 198, 9h. 10m. 54s.

March 24 . . +18 16 27.1

83 Cancri, 9h. 11m. 43s.

March 24 . . +18 15 16.4

Anonymous, 9h. 12m. 30s.

February 18 . . −35 8 16.5

26 Hydræ, 9h. 13m. 31s.

April 21 . . −11 25 40.6

O. Arg. S. 9600, 9h. 14m. 19s.

April 8 . . −27 2 40.5

h Mali, 9h. 15m. 45s.

April 3 . . −25 24 51.0
22 . . 47.6

Anonymous, 9h. 17m. 22s.

April 11 . . −38 45 42.0

Anonymous, 9h. 17m. 31s.

February 29 . . −34 51 56.1

Lacaille 3810, 9h. 18m. 29s.

February 13 . . −34 41 28.2

Lacaille 3815, 9h. 19m. 7s.

° ′ ″
April 11 . . −38 52 0.0

Schjellerup 3476, 9h. 20m. 1s.

March 3 . . − 8 2 13.0

Anonymous, 9h. 20m. 59s.

April 21 . . −27 48 45.3

Anonymous, 9h. 21m. 47s.

April 21 . . −27 49 54.6

Lacaille 3848, 9h. 22m. 51s.

February 18 . . −34 20 19.3

Weisse (2) IX, 471, 9h. 23m. 52s.

March 24 . . +44 18 47.0
April 17 . . 50.9

Lacaille 3864, 9h. 24m. 16s.

February 29 . . −27 40 24.8

λ Leonis, 9h. 24m. 19s.

March 19 . . +23 32 25.1

Anonymous, 9h. 24m. 31s.

February 29 . . −27 37 7.6

O. Arg. S. 9789, 9h. 24m. 33s.

April 8 . . −29 34 29.4

Lacaille 3874, 9h. 24m. 51s.

April 3 . . −32 50 4.7

O. Arg. S. 9824, 9h. 26m. 17s.

February 29 . . −27 38 46.8

O. Arg. S. 9855, 9h. 28m. 24s.

February 18 . . −31 22 6.5
April 11 . . 7.7

O. Arg. S. 9856, 9h. 28m. 26s.

February 18 . . −31 26 50.4
April 11 . . 50.2

O. Arg. S. 9888, 9h. 29m. 39s.

April 3 . . −20 25 (34.3)
17 . . 25.2

O. Arg. S. 9903, 9h. 30m. 20s.

April 8 . . −20 18 20.9

Weisse (2) IX, 639, 9h. 30m. 47s.

April 21 . . +17 25 3.4
22 . . 3.4

Anonymous, 9h. 30m. 48s.

March 19 . . −35 27 13.6

12 Leonis, 9h. 31m. 45s.

April 27 . . +25 57 5.9

Anonymous, 9h. 32m. 32s.

March 24 . . −20 20 39.0

Lacaille 3976, 9h. 36m. 11s.

° ′ ″
April 22 . . −29 42 45.7

Anonymous, 9h. 37m. 2s.

April 3 . . −34 59 11.4

Lacaille 3983, 9h. 37m. 13s.

April 11 . . −34 54 34.4

Lacaille 3984, 9h. 37m. 18s.

April 17 . . −32 48 28.0

Weisse (2) IX, 794, 9h. 38m. 24s.

April 8 . . +27 38 38.2

Weisse (2) IX, 815, 9h. 39m. 13s.

April 8 . . +27 31 24.0

Weisse (2) IX, 817, 9h. 39m. 23s.

April 21 . . +27 45 26.6

B. A. C. 3339, 9h. 39m. 41s.

April 27 . . + 2 23 7.6

Weisse (2) IX, 837, 9h. 40m. 27s.

April 21 . . +27 42 49.4

Lacaille 4007, 9h. 40m. 41s.

March 24 . . −32 54 33.5
April 17 . . 29.2

Anonymous, 9h. 41m. 26s.

April 22 . . −29 40 18.7

Lacaille 4021, 9h. 41m. 58s.

March 19 . . −32 38 23.3

O. Arg. S. 10122, 9h. 42m. 24s.

April 11 . . −24 36 19.5

O. Arg. S. 10131, 9h. 42m. 49s.

April 22 . . −29 43 6.5

4 Sextantis, 9h. 43m. 44s.

May 1 . . + 4 57 4.0

23 Leonis, 9h. 44m. 0s.

April 3 . . +13 40 15.8

Weisse (2) IX, 966, 9h. 46m. 30s.

April 8 . . +28 18 24.5

Weisse IX, 998, 9h. 47m 2s.

March 24 . . +10 52 9.1

Anonymous, 9h. 47m. 26s.

April 21 . . −39 23 23.3

Weisse (2) IX, 1038, 9h. 49m. 45s.

April 22 . . +29 10 38.9
27 . . 39.7

Weisse (2) IX, 1065, 9h. 50m. 51s.

April 22 . . +29 12 3.3

B. A. C. 3405, 9h. 50m. 56s.

° ′ ″
April 3 . . −32 48 11.1

Lacaille 4076, 9h. 51m. 4s.

April 17 . . −26 51 30.3

Lacaille 4095, 9h. 53m. 19s.

May 1 . . −35 16 10.1

Lacaille 4107, 9h. 55m. 48s.

April 11 . . −38 49 36.9
21 . . 35.9

Anonymous, 9h. 57m. 14s.

April 3 . . −29 38 40.5
17 . . 35.1

Anonymous, 9h. 57m. 38s.

April 11 . . −38 47 50.3
21 . . 49.0

Anonymous, 9h. 57m. 42s.

April 3 . . −29 37 20.1
17 . . 17.5

O. Arg. S. 10337, 9h. 58m. 21s.

April 27 . . −23 39 26.1

Anonymous, 9h. 58m. 30s.

April 8 . . +13 10 11.7

Weisse IX, 1243, 9h. 58m. 39s.

April 22 . . +13 35 32.2

Lacaille 4135, 9h. 58m. 56s.

May 1 . . −39 20 47.3

14 Sextantis, 9h. 59m. 59s.

April 30 . . + 6 14 39.1

Weisse IX, 1279, 10h. 0m. 38s.

April 22 . . +13 39 27.8

Anonymous, 10h. 1m. 24s.

March 19 . . −24 18 2.9

Anonymous, 10h. 2m. 0s.

March 19 . . −24 19 44.2

Weisse X, 38, 10h. 4m. 22s.

April 27 . . + 6 48 24.1

Lalande 19854, 10h. 5m. 54s.

March 24 . . +32 9 16.7
April 8 . . 18.4

Weisse X, 70, 10h. 5m. 55s.

April 21 . . −10 29 44.6
May 1 . . 44.4

Lacaille 4186, 10h. 6m. 22s.

April 3 . . −40 14 5.1

Lalande 19869, 10h. 6m. 41s.

April 8 . . +32 4 9.9

Lacaille 4190, 10h. 6m. 55s.

° ′ ″
April 11 . . −28 51 30.7

Anonymous, 10h. 7m. 35s.

April 22 . . −29 47 14.4

22 Leonis Minoris, 10h. 7s. 36s.

March 24 . . +32 6 41.3

λ Ursæ Majoris, 10h. 9m. 14s.

May 8 . . +43 33 44.6

Weisse (2) X, 179, 10h. 9m. 45s.

April 17 . . +30 12 4.4

Anonymous, 10h. 10m. 4s.

March 19 . . −38 38 42.6

Weisse (2) X, 194, 10h. 10m. 42s.

April 27 . . +43 42 0.4

Lacaille 4242, 10h. 12m. 55s.

April 30 . . −36 9 16.4

O. Arg. S. 10533, 10h. 13m. 11s.

May 1 . . −28 18 32.6

Anonymous, 10h. 13m. 33s.

April 21 . . − 3 41 30.2

O. Arg. S. 10540, 10h. 13m. 51s.

May 1 . . −28 18 37.0

Lacaille 4250, 10h. 14m. 26s.

April 3 . . −32 28 34.8

Anonymous, 10h. 14m. 28s.

April 22 . . −22 59 11.5

B. A. C. 3531, 10h. 14m. 44s.

May 8 . . +66 13 19.3

Weisse X, 240, 10h. 15m. 15s.

April 8 . . +11 58 35.7

Lacaille 4257, 10h. 15m. 18s.

April 17 . . −24 43 8.3

Weisse X, 255, 10h. 16m. 5s.

March 24 . . − 3 5 11.9

Lacaille 4266, 10h. 16m. 25s.

April 11 . . −28 54 11.3

Anonymous, 10h. 16m. 52s.

April 27 . . −27 21 31.9

B. A. C. 3553, 10h. 16m. 59s.

March 19 . . − 2 59 11.0

Rumker 3171, 10h. 17m. 50s.

April 8 . . +12 0 51.7

44 Leonis, 10h. 18m. 24s.

° ′ ″
April 30 . . + 9 26 40.1

Weisse X, 303, 10h. 18m. 43s.

April 30 . . + 9 26 8.5

B. A. C. 3563, 10h. 19m. 15s.

April 21 . . − 6 24 19.3

B. A. C. 3566, 10h. 19m. 47s.

April 11 . . − 5 46 2.6

Weisse X, 375, 10h. 22m. 19s.

April 27 . . + 10 49 12.8
May 1 . . 12.9

Weisse X, 378, 10h. 22m. 31s.

April 3 . . +12 51 3.0
22 . . 5.2

B. A. C. 3596, 10h. 23m. 30s.

May 8 . . −28 59 57.5

30 Sextantis, 10h. 23m. 39s.

March 24 . . + 0 1 40.5

33 Leonis Minoris, 10h. 24m. 29s.

May 11 . . +33 2 45.6

Weisse X, 412, 10h. 24m. 30s.

April 27 . . +10 43 2.3
May 1 . . 2.2
(Agrees with Lalande 20381. Error of 10″ in Weisse, and probably an error of 34″.3 in Bessel.)

Lacaille 4326, 10m. 25h. 38s.

April 30 . . −34 27 30.6

Anonymous, 10h. 26m. 8s.

March 19 . . −33 43 32.1

Weisse (2) X, 513, 10h. 26m. 31s.

April 3 . . +15 33 55.2

Anonymous, 10h. 27m. 39s.

April 11 . . −35 23 52.7

48 Leonis, 10h. 28m. 2s.

April 20 . . + 7 37 21.3

B. A. C. 3627, 10h. 28m. 48s.

April 17 . . −22 30 22.5

Lacaille 4358, 10h. 29m. 27s.

May 8 . . −38 53 28.2

Weisse X, 520, 10h. 30m. 5s.

April 22 . . −11 31 58.6

O. Arg. S. 10775, 10h. 31m. 42s.

April 27 . . −28 25 26.1

50 Leonis, 10h. 31m. 56s.

March 24 . . +16 48 12.0

ρ³ Hydræ, 10h. 32m. 15s.

° ′ ″
March 19 . . −16 12 9.6
May 11 . . 8.0

Lacaille 4389, 10h. 33m. 55s.

April 11 . . −32 56 11.8

Weisse X, 600, 10h. 34m. 42s.

April 3 . . +14 39 21.8

33 Sextantis, 10h. 34m. 47s.

April 30 . . + 1 3 32.3

B. A. C. 3661, 10h. 34m. 55s.

April 17 . . +32 22 36.1
May 8 . . 35.9

Anonymous, 10h. 34m. 56s.

April 21 . . −35 54 41.8

Lacaille 4406, 10h. 35m. 44s.

May 1 . . −25 22 2.9

Weisse (2) X, 711, 10h. 35m. 52s.

April 22 . . +34 2 36.6

36 Sextantis, 10h. 38m. 28s.

March 19 . . + 3 10 15.5
24 . . 15.0

42 Leonis Minoris, 10h. 38m. 37s.

April 20 . . +31 21 59.9

O. Arg. S. 10872, 10h. 40m. 21s.

April 27 . . −27 28 53.2

O. Arg. S. 10874, 10h. 40m. 21s.

April 27 . . −27 27 31.9

Anonymous, 10h. 41m. 22s.

April 22 . . −29 57 8.0

O. Arg. S. 10887, 10h. 41m. 27s.

April 30 . . −30 55 4.6

43 Leonis Minoris, 10h. 41m. 46s.

May 11 . . +30 6 12.2

O. Arg. S. 10906, 10h. 43m. 4s.

May 8 . . −26 7 44.9

O. Arg. S. 10907, 10h. 43m. 7s.

April 22 . . −29 57 14.8

Anonymous, 10h. 43m. 14s.

April 3 . . −37 37 26.6

Lacaille 4480, 10h. 43m. 27s.

April 21 . . −38 29 2.0

Weisse X, 803, 10h. 45m. 9s.

April 17 . . −12 2 50.6

Dorpat 1482, 10h. 45m. 25s.

March 24 . . + 8 9 5.9

B. A. C. 3726, 10h. 45m. 34s.

° ′ ″
May 1 . . + 1 42 52.0

44 Ursæ Majoris, 10h. 45m. 41s.

April 20 . . +55 16 32.2

O. Arg. S. 10933, 10h. 45m. 45s.

April 11 . . −23 40 55.1

Anonymous, 10h. 45m. 46s.

March 24 . . + 8 10 54.6

Anonymous, 10h. 47m. 31s.

April 11 . . −23 38 31.3

Anonymous, 10h. 48m. 4s.

April 30 . . −30 27 20.5

Weisse X, 963, 10h. 48m. 29s.

March 19 . . +23 51 25.7
April 27 . . 26.3

54 Leonis, (2d *,) 10h. 48m. 36s.

April 3 . . +25 26 28.1

Anonymous, 10h. 50m. 46s.

April 21 . . −41 20 48.5

Anonymous, 10h. 50m. 53s.

April 17 . . −27 46 53.5
May 8 . . 54.9

Weisse (2) X, 1017, 10h. 51m. 38s.

April 22 . . +22 33 50.9
May 1 . . 50.9

Lacaille 4535, 10h. 52m. 4s.

April 21 . . −41 20 38.9

O. Arg. S. 11020, 10h. 52m. 16s.

May 11 . . −23 30 17.6

B. A. C. 3778, 10h. 56m. 8s.

April 11 . . −26 7 46.5

Weisse (2) X, 1152, 10h. 56m. 14s.

April 27 . . +36 50 34.2
May 8 . . 32.5

Lacaille 4567, 10h. 56m. 14s.

April 30 . . −40 24 54.5

B. A. C. 3779, 10h. 56m. 36s.

March 24 . . − 0 2 58.1
April 3 . . 57.7

Anonymous, 10h. 59m. 5s.

April 21 . . −29 49 54.2

Weisse X, 1049, 10h. 59m. 20s.

May 1 . . +13 30 21.4

Schjellerup 4037, 10h. 59m. 27s.

April 22 . . +11 0 34.1

Weisse X, 1060, 10h. 59m. 44s.

° ′
May 1 . . +13 24 21.1

Weisse X, 1076, 11h. 0m. 3

April 8 . . −10 53 52.
22 . . 53.7

Lacaille 4599, 11h. 0m. 54s.

April 30 . . −31 52 57.

Weisse X, 1087, 11h. 1m. 0s.

April 22 . . +10 55 21

Weisse X, 1090, 11h. 1m. 13s.

April 22 . . +10 54 3.2

Weisse (2) X, 1221, 11h. 1m. 26s

April 17 . . +35 25 13.

O. Arg. N. 11496, 11h. 2m. 53s.

March 24 . . +59 35 55.7
May 11 . . 55.1

O. Arg. S. 11188, 11h. 3m. 5s.

April 27 . . −25 17 3.3

O. Arg. N. 11518, 11h. 3m. 59s.

March 24 . . +59 36 14.5

Lacaille 4633, 11h. 4m. 21s.

April 3 . . −31 51 34.5

O. Arg. S. 11216, 11h. 4m. 57s.

April 27 . . −25 13 5.4

Lacaille 4646, 11h. 6m. 52s.

May 8 . . −25 45 30.

O. Arg. N. 11590, 11h. 8m. 20s.

May 11 . . +69 55 30.2

Anonymous, 12h. 8m. 24s.

April 30 . . −26 36 1.5

Lacaille 4665, 11h. 8m. 49s.

April 21 . . −32 36 42.5

O. Arg. N. 11619, 11h. 9m. 30s.

May 11 . . +69 53 53.

Weisse XI, 133, 11h. 9m. 35s.

April 22 . . − 2 45 50.5

Rumker 3497, 11h. 9m. 47s.

April 17 . . +60 58 52.4

Weisse XI, 137, 11h. 9m. 57s.

May 1 . . − 2 55 56.1

φ Leonis, 11h. 10m. 3s.

May 1 . . − 2 56 23.5

O. Arg. S. 11291, 11h. 11m. 54s.

April 27 . . −27 43 31.2

Lamont 3284, 11h. 12m. 52s.

° ′ ″

April 8 . . + 0 31 42.4

O. Arg. S. 11304, 11h. 13m. 6s.

April 27 . . −27 45 50.5

O. Arg. S. 11318, 11h. 13m. 58s.

May 18 . . −27 37 16.0

Lacaille 4713, 11h. 14m. 52s.

April 30 . . −34 48 47.7

O. Arg. S. 11344, 11h. 16m. 11s.

April 17 . . −23 1 2.4

B. A. C. 3875, 11h. 16m. 57s.

April 21 . . −35 27 5.6

ι Leonis, 11h. 17m. 8s.

April 23 . . +11 14 41.6

Lacaille 4735, 11h. 18m. 11s.

April 8 . . −33 34 18.5

Weisse (2) XI, 340, 11h. 19m. 23s.

May 8 . . +21 6 50.1

B. A. C. 3901, 11h. 21m. 14s.

March 24 . . − 0 59 6.6
May 11 . . 3.5

Anonymous, 11h. 21m. 33s.

April 30 . . −34 50 3.6

B. A. C. 3906, 11h. 22m. 39s.

April 17 . . +81 50 35.0

B. A. C. 3909, 11h. 22m. 47s.

May 1 . . − 0 7 59.2

B. A. C. 3911, 11h. 22m. 56s.

May 18 . . + 8 18 58.7

Lacaille 4758, 11h. 23m. 12s.

May 16 . . −27 18 53.2

Lacaille 4760, 11h. 23m. 22s.

April 8 . . −37 44 26.8

58 Ursæ Majoris, 11h. 23m. 29s.

May 21 . . +43 53 11.4

Weisse XI, 403, 11h. 24m. 15s.

April 21 . . − 6 0 7.6

B. A. C. 3928, 11h. 26m. 37s.

May 22 . . −31 8 19.6

Weisse XI, 450, 11h. 27m. 1s.

April 23 . . − 5 49 7.4
27 . . 8.4

Weisse (2) XI, 509, 11h. 28m. 17s.

May 8 . . +21 9 36.1

Anonymous, 11h. 28m. 38s.

° ′ ″

April 23 . . − 5 46 26.2
27 . . 26.6

Weisse (2) XI, 526, 11h. 29m. 2s.

April 17 . . +20 49 26.9

Weisse XI, 488, 11h. 29m. 3s.

May 11 . . −13 44 33.1

Weisse XI, 495, 11h. 29m. 23s.

May 18 . . + 8 4 1.8

Lacaille 4805, 11h. 30m. 15s.

April 21 . . −33 55 55.4

Weisse (2) XI, 556, 11h. 30m. 25s.

May 1 . . +28 29 38.2

Anonymous, 11h. 30m. 51s.

May 16 . . −34 21 6.1

B. A. C. 3955, 11h. 31m. 46s.

March 24 . . − 1 43 2.4

Weisse XI, 562, 11h. 33m. 5s.

April 8 . . − 0 43 8.9

B. A. C. 3963, 11h. 33m. 47s.

April 21 . . −34 1 27.2
May 22 . . 28.5

Lacaille 4845, 11h. 34m. 42s.

April 23 . . −28 28 58.6

Weisse XI, 592, 11h. 34m. 48s.

May 11 . . + 1 40 21.8

Weisse XI, 597, 11h. 35m. 2s.

May 11 . . + 1 42 57.7

B. A. C. 3974, 11h. 36m. 59s.

May 18 . . −36 28 5.8

ζ Crateris, 11h. 38m. 10s.

May 16 . . −17 37 41.1
18 . . 42.0

Rumker 3727, 11h. 38m. 31s.

May 1 . . +14 59 6.5

Weisse XI, 680, 11h. 39m. 42s.

April 27 . . − 2 16 48.8

Lacaille 4881, 11h. 39m. 50s.

May 22 . . −27 14 30.3

Anonymous, 11h. 40m. 47s.

April 8 . . +15 18 6.2

Anonymous, 11h. 42m. 3s.

April 8 . . +15 13 40.8

Anonymous, 11h. 42m. 9s.

April 21 . . −35 15 51.0

Lalande 22308, 11h. 42m. 17s.

° ′ ″

May 8 . . +15 14 6.8

Anonymous, 11h. 44m. 6s.

May 1 . . −36 57 59.7

Lacaille 4906, 11h. 44m. 11s.

April 23 . . −32 25 6.9

Lacaille 4909, 11h. 44m. 32s.

May 16 . . −26 21 26.3

Weisse XI, 758, 11h 44m. 32s.

May 18 . . − 7 16 4.2

B. A. C. 4010, 11h. 45m. 27s.

May 11 . . +38 39 14.6
21 . . 12.9

Anonymous, 11h. 45m 45s.

May 1 . . −37 1 45.2

B A. C. 4015, 11h. 46m. 22s.

May 22 . . −33 11 5.7

B. A. C. 4023, 11h 47m. 58s.

May 1 . . −37 1 41.5

65 Ursæ Majoris, 11h. 48m. 20s.

May 8 . . +47 12 0.6

Anonymous, 11h. 48m. 55s.

April 21 . . −33 19 18.1

Anonymous, 11h. 49m. 3s.

April 8 . . +36 9 42.8

Weisse (2) XI, 937, 11h. 49m. 16s.

May 11 . . +36 3 53.0

Weisse (2) XI, 954, 11h. 49m. 36s.

April 8 . . +36 10 16.2

O. Arg. N. 12195, 11h. 50m. 29s.

May 16 . . +62 57 20.2

Lacaille 4955, 11h. 51m. 29s.

May 18 . . −26 57 37.8

B. A. C. 4042, 11h. 52m. 17s.

April 23 . . −25 11 2.8
May 21 . . 3.5

Lacaille 4967, 11h. 52m. 46s.

May 22 . . −29 20 14.1

Lacaille 4979, 11h. 55m. 10s.

April 30 . . −33 55 36.5

Anonymous, 11h. 56m. 5s.

May 11 . . − 9 55 29.1

Anonymous, 11h. 56m. 9s.

April 21 . . −35 11 10.8

O. Arg. S. 11876, 11h. 57m. 54s.

° ′ ″

April 23 . . −30 27 47.9

Anonymous, 11h. 58m. 33s.

May 22 . . −33 29 7.6

Anonymous, 11h. 59m. 24s.

April 8 . . −30 18 12.3

Anonymous, 11h. 59m. 30s.

April 8 . . −30 17 5.3

Lacaille 5016, 11h. 59m. 33s.

May 21 . . −37 57 6.7

O. Arg. S. 11905, 12h. 0m. 21s.

May 16 . . −23 2 39.0

O. Arg. S. 11920, 12m. 0m. 57s.

May 18 . . −23 14 35.4

B. A. C. 4088, 12h. 1m. 38s.

April 30 . . −33 57 4.5

Weisse XI, 1033, 12h. 1m. 48s.

May 11 . . − 3 36 49.8

B. A. C. 4098, 12h. 3m. 51s.

April 21 . . −37 8 44.9

O. Arg. S. 11982, 12h. 5m. 17s.

April 23 . . −25 13 3.0

O. Arg. S. 11995, 12m. 6m. 10s.

May 18 . . −30 34 55.9
22 . . 55.3

Lacaille 5065, 12h. 6m. 40s.

May 16 . . −38 12 22.9

12 Virginis, 12h. 6m. 48s.

May 30 . . +10 59 8.5

Lacaille 5066, 12h. 6m. 52s.

April 30 . . −33 4 9.1

Groombridge, 1860, 12h. 7m. 29s.

May 21 . . +84 13 50.3

Lacaille 5073, 12h. 7m. 34s.

April 30 . . −33 3 20.1

γ Corvi, 12h. 9m. 8s.

June 4 . . −16 49 12.6

Anonymous, 12h. 9m. 16s.

April 23 . . −25 50 27.6

Anonymous, 12h. 10m. 7s.

April 23 . . −25 52 28.1

O. Arg. S. 12057, 12h. 11m. 12s.

May 11 . . −23 17 26.8

ANONYMOUS, 12h. 12m. 2s.

April 8 . . +23 50 32.9

ANONYMOUS, 12h. 12m. 42s.

April 21 . . −25 22 53.6

LACAILLE 5097, 12h. 12m. 46s.

May 22 . . −31 52 0.9

3 CANUM VENAT., 12h. 13m. 25s.

May 16 . . +49 42 22.0
30 . . 21.0

LACAILLE 5109, 12h. 14m. 16s.

April 30 . . −41 50 25.6

O. ARG. S. 12116, 12h. 15m. 41s.

May 21 . . −23 30 53.3

12 COMÆ, 12h. 15m. 55s.

May 8 . . +26 34 4.7

WEISSE XII, 252, 12h. 16m. 28s.

May 11 . . + 7 33 57.6

LACAILLE 5134, 12h. 17m. 22s.

May 18 . . −38 11 34.9

O. ARG. S. 12134, 12h. 17m. 23s.

May 21 . . −23 31 23.5

LALANDE 23219, 12h. 18m. 4s.

April 23 . . − 4 55 37.4

LACAILLE 5144, 12h. 18m. 31s.

June 4 . . −27 1 42.6

κ^2 CENTAURI, 12h. 18m. 32s.

April 21 . . −34 27 55.0
June 1 . . 56.7

RADCLIFFE 2860, 12h. 19m. 2s.

May 30 . . +64 31 23.5

O. ARG. S. 12161, 12h. 19m. 51s.

May 22 . . −26 27 44.7

LALANDE 23270, 12h. 20m. 7s.

April 23 . . − 4 52 17.0

ANONYMOUS, 12h. 23m. 6s.

May 11 . . −37 37 12.0

B. A. C. 4214, 12h. 23m. 30s.

April 30 . . −22 58 39.1

ANONYMOUS, 12h. 24m. 42s.

April 21 . . −32 57 2.6

LACAILLE 5191, 12h. 25m. 13s.

May 21 . . −31 48 53 7

LACAILLE 5192, 12h. 25m. 20s.

May 22 . . −26 50 55.1

LACAILLE 5193, 12h. 25m. 44s.

May 21 . . −31 44 45.5

O. ARG. N. 12726, 12h. 26m. 7s.

May 30 . . +64 28 33.4

ANONYMOUS, 12h. 26m. 36s.

May 21 . . −31 44 9.1

O. ARG. S. 12243, 12h. 26m. 59s.

June 1 . . −22 47 39.1

ANONYMOUS, 12h. 27m. 12s.

May 21 . . −31 46 12.2

B. A. C. 4241, 12h. 28m. 35s.

April 23 . . +19 5 35.4
May 18 . . 35.1

24 COMÆ, 12h. 28m. 36s.

April 23 . . +19 5 34.8
May 18 . . 34.3

B. A. C. 4243, 12h. 28m. 47s.

April 30 . . −40 18 16.0
June 4 . . 17.7

WEISSE (2) XII, 636, 12h. 30m. 40s.

May 11 . . +33 44 32.4

WEISSE XII, 510, 12h. 31m. 34s.

May 30 . . + 2 41 43.9

ANONYMOUS, 12h. 32m. 17s.

April 21 . . +13 34 27.9

WEISSE XII, 526, 12h. 32m. 27s.

June 1 . . +14 30 12.0

LACAILLE 5252, 12h. 35m. 32s.

May 18 . . −37 11 21.0

LACAILLE 5254, 12h. 36m. 23s.

May 21 . . −39 27 52.1

LACAILLE 5257, 12h. 36m. 38s.

June 4 . . −25 35 17.8

LACAILLE 5261, 12h. 37m. 0s.

April 30 . . −34 24 16.9

WEISSE XII, 626, 12h. 38m. 2s.

May 11 . . +14 3 43.3

O. ARG. S. 12389, 12h. 38m 20s.

April 23 . . −28 3 11.9

O. ARG. S. 12390, 12h. 38m. 22s.

June 1 . . −29 14 13.6

WEISSE XII, 646, 12h. 38m. 55s.

May 11 . . +14 7 36.6

d^2 VIRGINIS, 12h. 39m. 3s.

May 22 . . + 8 23 3.5

ANONYMOUS, 12h 39m. 33s.

April 21 . . +14 26 5.2

WEISSE XII, 685, 12h. 41m. 20s.

May 11 . . +14 8 6.5

11 CANUM VENAT., 12h. 42m. 44s.

May 30 . . +49 10 33.3

O. ARG. S. 12460, 12h. 43m. 13s.

April 30 . . −25 7 53.1

WEISSE XII, 722, 12h. 43m. 16s.

May 18 . . −12 21 8.1

LACAILLE 5301, 12h. 44m. 44s.

June 4 . . −30 22 32.9

B. A. C. 4313, 12h. 44m. 48s.

June 1 . . 38 58 20.0

O. ARG. S. 12523, 12h. 48m. 44s.

May 18 . . −26 42 51.1

δ VIRGINIS, 12h. 49m. 4s.

May 22 . . + 4 6 14.2

O. ARG. S. 12529, 12h. 49m. 35s.

May 18 . . −26 39 54.4

WEISSE XII, 835, 12h. 49m. 45s.

June 4 . . − 0 14 49.4

O. ARG. S. 12533, 12h. 49m. 46s.

May 18 . . −26 40 41.5

O. ARG. S. 12573, 12h. 53m. 16s.

April 30 . . −23 12 41.5

46 VIRGINIS, 12h. 53m. 54s.

May 30 . . − 2 40 7.6

WEISSE (2) XII, 1066, 12h. 54m. 14s.

May 11 . . +32 28 52.7

O. ARG. S. 12588, 12h. 54m. 44s.

May 21 . . −30 7 54.1

LACAILLE 5368, 12h. 55m. 21s.

April 27 . . −28 33 55.1

LACAILLE 5371, 12h. 55m. 48s.

June 4 . . −33 35 31.8

B. A. C. 4369, 12h. 56m. 37s.

June 4 . . −33 33 4.3

LACAILLE 5379, 12h. 56m. 56s.

May 16 . . −23 49 11.3

O. ARG. S. 12620, 12h. 57m. 20s.

May 18 . . −25 59 9.7

B. A. C. 4378, 12h. 59m. 15s.

April 30 . . −40 53 27.3

B. A. C. 4383, 12h. 59m. 42s.

May 30 . . −35 9 44.[illegible]

41 COMÆ, 13h. 0m. 56s.

May 21 . . +28 19 22.7
22 . . 21.4

ψ HYDRÆ, 13h. 2m. 4s.

June 1 . . −22 25 2[illegible]
8 . . 21.2

LACAILLE 5428, 13h. 4m. 35s.

April 30 . . −25 51 32.[illegible]

53 VIRGINIS, 13h. 5m. 10s.

June 12 . . +15 20 4[illegible]

LACAILLE 5440, 13h. 5m. 51s.

April 27 . . −28 24 31.[illegible]

ANONYMOUS, 13h. 6m. 26s.

June 5 . . −35 15 18.4

B. A. C. 4431, 13h. 7m. 21s.

May 22 . . + 2 8 [illegible]

LACAILLE 5454, 13h. 7m. 25s.

May 16 . . −23 35 41.4

WEISSE XIII, 103, 13h. 8m. 7s.

June 8 . . −10 40 [illegible]

WEISSE XIII, 105, 13h. 8m. 11s.

June 8 . . −10 39 33.7

57 VIRGINIS, 13h. 8m. 57s.

June 4 . . −19 15 3.2
12 . . 2.2

LALANDE 24624, 13h. 9m. 57s.

May 21 . . − 4 53 3.2

c VIRGINIS, 13h. 10m. 19s.

June 13 . . +10 0 13.7
15 . . 15.3

LACAILLE 5478, 13h. 11m. 15s.

April 30 . . −27 38 36.2

γ HYDRÆ, 13h. 11m. 51s.

April 27 . . −22 29 5.4
June 1 . . 6.2

62 VIRGINIS, 13h. 13m. 31s.

June 8 . . −10 37 12.[illegible]

O. ARG. S. 12808, 13h. 13m. 41s.

June 1 . . −23 4 46.[illegible]

B. A. C. 4462, 13h. 14m. 0s.

May 22 . . + 5 30 37.[illegible]

Lacaille 5514, 13h. 15m. 53s.

° ′ ″

May 21 . . −32 30 32.8

Lalande 24841, 13h. 17m. 33s.

May 16 . . +40 6 30.0
June 12 . . 30.9

ζ Ursæ Majoris, 13h. 18m. 41s.

June 13 . . +55 36 18.2
15 . . 18.7

B. A. C. 4486, 13h. 18m. 42s.

June 13 . . +55 36 5.4
15 . . 5.9

Anonymous, 13h. 19m. 38s.

June 5 . . −34 56 32.8

i Virginis, 13h. 19m. 52s.

April 27 . . −12 1 47.7
30 . . 48.2

Weisse XIII, 304, 13h. 20m. 0s.

June 1 . . − 5 37 29.8

69 Virginis, 13h. 20m. 31s.

May 22 . . −15 17 54.7

Lacaille 5559, 13h. 21m. 21s.

June 4 . . −26 43 29.3

Anonymous, 13h. 21m. 59s.

June 5 . . −34 53 40.3

Lacaille 5563, 13h. 22m. 19s.

June 4 . . −26 42 53.8

Lalande 24977, 13h. 23m. 56s.

June 12 . . −24 59 3.7

Lamont 4065, 13h. 24m. 4s.

May 21 . . − 1 36 9.3

Lacaille 5573, 13h. 24m. 20s.

June 8 . . −27 26 29.6

Lamont 4068, 13h. 24m. 30m.

May 21 . . − 1 35 26.4

Lamont 4071, 13h. 25m. 7s.

May 21 . . − 1 39 23.0

Lacaille 5580, 13h. 25m. 22s.

April 27 . . −28 1 17.9

B. A. C. 4527, 13h. 25m. 59s.

May 22 . . +79 18 58.2

Weisse XIII, 426, 13h. 26m. 37s.

June 1 . . − 6 57 14.1

O. Arg. S. 12959, 13h. 27m. 35s.

June 4 . . −26 37 22.8

Anonymous, 13h. 27m. 35s.

° ′ ″

April 30 . . −36 53 15.8

O. Arg. S. 13003, 13h. 31m. 4s.

June 5 . . −29 10 34.4

B. A. C. 4548, 13h. 31m. 25s.

May 16 . . −28 53 45.2
June 12 . . 44.8

Anonymous, 13h. 31m. 30s.

June 4 . . −26 35 51.3

Lacaille 5626, 13h. 31m. 50s.

June 15 . . −24 11 59.8

Anonymous, 13h. 32m. 4s.

June 13 . . −30 13 26.4

Lacaille 5635, 13h. 32m. 54s.

April 27 . . −26 55 0.9

Lacaille 5649, 13h. 34m. 53s.

April 30 . . −33 19 21.0

Weisse XIII, 583, 13h. 34m. 59s.

June 1 . . − 6 53 50.9

Anonymous, 13h. 37m. 18s.

June 8 . . +22 40 24.0
12 . . 23.5

Weisse XIII, 630, 13h. 37m. 22s.

June 13 . . −12 17 28.4

83 Virginis, 13h. 37m. 30s.

May 22 . . −15 31 26.5

Weisse (2) XIII, 777, 13h. 37m. 51s.

May 21 . . +22 28 25.5
June 5 . . 23.7

B. A. C. 4578, 13h. 38m. 8s.

June 1 . . − 6 58 49.2

Weisse (2) XIII, 782, 13h. 38m. 9s.

May 21 . . +22 31 28.8
June 5 . . 26.8

i Centauri, 13h. 38m. 19s.

May 16 . . −32 23 7.0

85 Virginis, 13h. 38m. 35s.

April 27 . . −15 6 46.2

Anonymous, 13h. 38m. 40s.

June 4 . . −34 31 9.7

Weisse XIII, 654, 13h. 38m. 54s.

June 13 . . −12 18 42.3

B. A. C. 4595, 13h. 40m. 41s.

June 15 . . +39 9 19.2

τ Bootis, 13h. 41m. 5s.

° ′ ″

June 17 . . +18 6 21.8

Lacaille 5680, 13h. 41m. 5s.

April 30 . . −36 28 39.8

O. Arg. S. 13158, 13h. 41m. 49s.

June 1 . . −22 4 30.1

g Centauri, 13h. 41m. 56s.

June 22 . . −33 48 1.1

Anonymous, 13h. 42m. 29s.

June 12 . . +22 39 56.9

Weisse (2) XIII, 891, 13h. 42m. 47s.

May 30 . . +31 50 14.0

c Bootis, 13h. 43m. 34s.

June 8 . . +21 54 38.5

Piazzi XIII, 220, 13h. 44m. 13s.

June 8 . . +21 55 19.3

Anonymous, 13h. 44m. 34s.

April 27 . . −37 58 27.5

Rumker 4483, 13h. 44m. 34s.

May 16 . . +12 13 29.7

Lacaille 5724, 13h. 45m. 51s.

June 5 . . −37 37 20.9

Weisse (2) XIII, 978, 19h. 46m. 6s.

May 22 . . +23 57 59.3

O. Arg. S. 13215, 13h. 46m. 23s.

June 4 . . −26 3 53.8

Weisse (2) XIII, 994, 13h. 46m. 46s.

May 22 . . +23 58 34.9

Lacaille 5739, 13h. 46m. 53s.

June 13 . . −28 11 6.3

B. A. C. 4636, 13h. 46m. 54s.

June 17 . . −27 55 31.9

Weisse XIII, 785, 13h. 47m. 0s.

June 1 . . + 9 46 12.8

Lacaille 5754, 13h. 48m. 28s.

April 30 . . −29 56 19.4

Lacaille 5758, 13h. 48m. 57s.

June 15 . . −37 40 51.3

Anonymous, 13h. 49m. 5s.

June 15 . . −37 45 34.7

Lacaille 5763, 13h. 49m. 10s.

May 21 . . −26 59 59.6

Radcliffe 3117, 13h. 50m. 46s.

° ′ ″

May 30 . . +79 38 14.1

Anonymous, 13h. 52m. 38s.

April 2 . . −36 45 54.7

Lacaille 5779, 13h. 53m. 8s.

June 13 . . −43 33 57.0

Brisbane 4727, 13h. 53m. 24s.

May 16 . . −36 50 16.6

Weisse (2) XIII, 1167, 13h. 53m. 39s.

May 22 . . +23 33 49.5

Anonymous, 13h. 53m. 39s.

April 27 . . −36 42 1.8

Anonymous, 13h. 54m. 34s.

June 4 . . +77 8 11.4

Weisse XIII, 931, 13h. 54m. 56s.

June 12 . . + 2 10 56.8

B. A. C. 4671, 13h. 55m. 0s.

June 26 . . −26 48 1.5

Lacaille 5790, 13h. 55m. 16s.

June 22 . . −26 13 6.7

11 Bootis, 13h. 55m. 17s.

June 8 . . +28 0 56.2

Lacaille 5798, (1st *) 13h. 56m. 21s.

April 30 . . −36 39 22.7

Lacaille 5798, (2d *) 13h. 56m. 22s.

April 30 . . −36 38 11.1

Lacaille 5800, 13h. 56m. 55s.

June 1 . . −35 1 8.2

O. Arg. S. 13349, 13h. 56m. 57s.

May 21 . . −27 58 22.4

Anonymous, 13h. 59m. 27s.

June 5 . . −14 53 11.9

Lacaille 5837, 14h. 2m. 41s.

May 16 . . −30 0 12.3
June 22 . . 11.2

Lacaille 5838, 14h. 2m. 53s.

May 21 . . −29 28 16.6

Lacaille 5842, 14h. 3m. 48s.

April 30 . . −29 10 11.0
June 17 . . 9.9

O. Arg. S. 13438, 14h. 3m. 56s.

June 1 . . −25 43 46.7

O. Arg. S. 13444, 14h. 4m. 8s.

June 13 . . −16 24 32.1

		° ′ ″
Anonymous, 14h. 5m. 33s.	June 4 . .	−32 57 25.5
	12 . .	24.8
Anonymous, 14h. 5m. 37s.	June 4 . .	−32 53 49.9
	12 . .	49.4
Anonymous, 14h. 5m. 44s.	June 4 . .	−32 24 21.9
	12 . .	21.2
Weisse XIV, 83, 14h. 6m. 36s.	June 5 . .	− 8 23 12.4
Lacaille 5860, 14h 6m. 41s.	June 26 . .	−41 13 39.2
Anonymous, 14h. 7m. 57s.	June 15 . .	−36 59 30.8
Lacaille 5872, 14h. 8m. 36s.	June 24 . .	−32 38 6.1
Lacaille 5873, 14h. 8m. 41s.	June 22 . .	−31 27 2.7
ι Virginis, 14h. 9m. 12s.	May 16 . .	− 5 22 43.7
	June 1 . .	43.0
O. Arg. N. 14403, 14h. 9m. 32s.	May 30 . .	+56 55 33.4
Lacaille 5878, 14h. 9m. 46s.	June 13 . .	−41 59 13.7
O. Arg. S. 13510, 14h. 10m. 7s.	June 17 . .	−26 21 17.5
Weisse (2) XIV, 196, 14h. 10m. 30s.	May 22 . .	+20 43 45.1
Lacaille 5883, 14h. 10m. 42s.	June 24 . .	−32 36 59.6
Weisse XIV, 173, 14h. 11m. 8s.	May 16 . .	− 5 22 8.8
	June 1 . .	7.5
ψ Centauri, 14h. 12m. 39s.	June 18 . .	−37 17 10.5
Lacaille 5898, 14h. 12m. 51s.	June 4 . .	−34 4 43.4
Weisse XIV, 221, 14h. 13m. 25s.	June 5 . .	− 3 39 22.1
	12 . .	20.7
Anonymous, 14h. 13m. 51s.	June 22 . .	−38 4 58.3
Lacaille 5915, 14h. 15m, 12s.	June 13 . .	−26 11 32.8
Lacaille 5922, 14h. 16m. 19s.	June 17 . .	−29 4 59.6
Lacaille 5923, 14h. 16m. 31s.	June 23 . .	−32 29 40.0
Lacaille 5926, 14h. 17m. 1s.	June 17 . .	−29 1 36.9
B. A. C. 4767, 14h. 17m. 24s.	June 26 . .	−24 12 52.3
Lacaille 5941, 14h. 18m. 41s.	June 24 . .	−32 39 42.4
Anonymous, 14h. 20m. 49s.	May 16 . .	−26 15 44.7
	June 5 . .	48.0
106 Virginis, 14h. 21m. 51s.	June 1 . .	− 6 18 54.8
	27 . .	56.4
Lacaille 5955, 14h. 22m. 19s.	June 12 . .	−39 53 42.0
	15 . .	43.3
Lacaille 5959, 14h. 22m. 22s.	June 22 . .	−24 57 34.3
Lacaille 5962, 14h. 23m. 4s.	June 12 . .	−39 48 22.7
	15 . .	22.6
Lacaille 5967, 14h. 23m. 23s.	June 4 . .	−34 6 4.3
Anonymous, 14h. 23m. 24s.	June 13 . .	−25 31 51.6
Lacaille 5975, 14h. 24m. 15s.	June 24 . .	−31 36 26.6
O. Arg. S. 13694, 14h 24m. 20s.	June 18 . .	−23 58 51.2
O. Arg. N. 14614, 14h. 25m. 2s.	June 17 . .	+49 7 17.1
Lacaille 5983, 14h. 25m. 27s.	June 23 . .	−30 8 16.9
Lacaille 5999, 14h. 28m. 17s.	June 22 . .	−59 1 35.4
Anonymous, 14h. 28m. 58s.	May 16 . .	−34 13 32.9
	June 15 . .	33.0
Anonymous, 14h. 29m. 8s.	June 13 . .	−36 57 50.2
Lamont 4429, 14h. 29m. 10s.	June 4 . .	+ 1 37 14.0
	5 . .	18.3
O. Arg. N. 14695, 14h. 29m. 24s.	June 24 . .	+76 20 35.4
O. Arg. S. 13757, 14h. 29m. 33s.	June 26 . .	−25 13 46.3
Lacaille 6027, 14h. 31m. 25s.	June 17 . .	−32 48 51.5
O. Arg. S. 13814, 14h. 32m. 58s.	June 12 . .	−25 41 11.7
Lacaille 6051, 14h. 34m. 3s.	June 23 . .	−29 8 18.1
π Bootis, 14h. 34m. 38s.	June 1 . .	+16 58 38.4
	5 . .	37.7
ζ Bootis, 14h. 34m. 58s.	June 18 . .	+14 17 13.7
	27 . .	12.3
Lacaille 6064, 14h. 35m. 44s.	May 16 . .	−29 39 3.7
Lacaille 6067, 14h. 36m. 1s.	June 13 . .	−29 26 24.0
Rumker 4800, 14h 36m. 48s.	June 15 . .	+52 47 42.4
B. A. C. 4857, 14. 36m. 49s.	June 24 . .	−23 34 32.3
54 Hydræ, (1st *) 14h. 38m. 29s.	June 22 . .	−24 53 20.0
54 Hydræ, (2d *) 14h. 38m. 29s.	June 22 . .	−24 53 26.2
5 Libræ, 14h. 38m. 48s.	June 29 . .	−14 54 35.7
Lacaille 6099, 14h. 40m. 5s.	June 12 . .	−27 9 3.4
Lacaille 6100, 14h. 40m. 30s.	June 18 . .	−35 17 47.3
Anonymous, 14h. 40m. 48s.	June 4 . .	−37 5 17.6
Weisse XIV, 748, 14h. 40m. 54s.	June 17 . .	+ 0 16 11.8
Lacaille 6112, 14h. 41m. 57s.	June 5 . .	−31 37 56.8
58 Hydræ, 14h. 42m. 39s.	May 16 . .	−27 25 1.2
	June 27 . .	2.0
Lalande, Fed., 2537, 14h. 43m. 2s.	June 15 . .	+80 20 24.5
O. Arg. S. 13996, 14h. 44m. 15s.	June 23 . .	−23 45 2.1
B. A. C. 4901, 14h. 44m. 42s.	June 13 . .	−37 16 0.3
Struve, C. G., 1668, 14h. 45m. 19s.	June 22 . .	+51 54 40.9
B. A. C. 4910, 14h. 46m. 23s.	June 12 . .	+23 26 26.9
Lacaille 6135, 14h. 46m. 27s.	June 17 . .	−33 36 32.4
Anonymous, 14h. 46m. 30s.	June 4 . .	−37 5 26.2
B. A. C. 4912, 14h. 46m. 42s.	July 3 . .	−32 46 7.0
12 Libræ, 14h. 46m. 47s.	June 29 . .	−24 6 31.2
O. Arg. S. 14046, 14h. 47m. 33s.	June 24 . .	−29 0 7.5
Lacaille 6152, 14h. 48m. 31s.	June 5 . .	−34 6 8.5
Anonymous, 14h. 49m. 22s.	June 26 . .	−26 16 26.2
Lacaille 6157, 14h. 49m. 24s.	May 16 . .	−32 18 23.5
	June 15 . .	23.1
Lacaille 6164, 14h. 49m. 44s.	May 16 . .	−32 18 16.7
	June 15 . .	16.9
B. A. C. 4923, (1st *,) 14h. 49m. 51s.	June 18 . .	−20 49 30.4
B. A. C. 4923, (2d *,) 14h. 49m. 52s.	June 18 . .	−20 49 35.1
14 Libræ, 14h. 49m. 56s.	June 27 . .	−24 54 59.5
O. Arg. S. 14094, 14h. 49m. 54s.	June 13 . .	−21 37 27.7
	23 . .	28.4
B. A. C. 4937, 14h. 52m. 4s.	June 4 . .	+50 9 35.9
Weisse (2) XIV, 1130, (1st *,) 14h. 52m. 31s.	June 12 . .	+40 41 6.7
Weisse (2) XIV, 1130, (2d *,) 14h. 52m. 32s.	June 12 . .	+40 41 16

Weisse (2) XIV, 1139, 14h. 52m. 46s.
° ′ ″
June 12 . . +40 41 52.8

Weisse (2) XIV, 1146, 14h. 53m. 7s.
June 12 . . +40 44 40.5

Weisse (2) XIV, 1162, 14h. 53m. 33s.
June 24 . . +43 54 20.9

O. Arg. N. 15005, 14h. 54m. 0s.
June 17 . . +59 2 55.6

δ Libræ, 14h. 54m. 2s.
June 29 . . − 8 0 4.0

Anonymous, 14h. 54m. 4s.
June 22 . . −31 59 40.5

Anonymous, 14h. 54m. 14s.
June 17 . . +59 3 24.0

Anonymous, 14h. 56m. 44s.
June 5 . . −37 10 41.1

β Bootis, 14h. 57m. 3s.
June 23 . . +40 54 15.2

Anonymous, 14h. 57m. 41s.
June 15 . . −26 20 29.6
26 . . 29.4

Lacaille 6219, 14h. 57m. 42s.
June 27 . . −30 2 46.5

Lacaille 6221, 14h. 58m. 5s.
May 16 . . −35 45 27.3

O. Arg. S. 14230, 14h. 58m. 9s.
June 13 . . −25 16 55.8

Anonymous, 14h. 58m. 33s.
June 18 . . 21 53 51.0

Anonymous, 14h. 59m. 9s.
June 15 . . −26 19 10.1
26 . . 9.3

ν¹ Libræ, 14h. 59m. 23s.
July 3 . . −15 45 4.7

Lacaille 6237, 15h. 0m. 27s.
June 4 . . −37 5 14.5

Weisse XIV, 1129, 15h. 0m. 45s.
June 29 . . + 0 31 55.1

Anonymous, 15h. 1m. 29s.
June 22 . . −31 59 26.9

Anonymous, 15h. 1m. 59s.
June 12 . . −36 58 34.2

B. A. C. 4984, 15h. 2m. 17s.
June 27 . . −23 29 14.8

Weisse XV, 10, 15h. 2m. 46s.
° ′ ″
June 24 . . − 4 53 39.4

Anonymous, 15h. 3m. 12s.
June 12 . . −37 0 32.8

O. Arg. N. 15138, 15h. 4m. 20s.
June 26 . . +46 58 31.1

Lacaille 6261, 15h. 4m. 31s.
June 4 . . −37 1 50.5
12 . . 49.5

Anonymous, 15h. 4m. 40.
June 22 . . −25 7 41.5

Dorpat 1914, (2d *,) 15h. 4m. 54s.
June 18 . . − 4 58 50.0

O. Arg. S. 14349, 15h. 5m. 4s.
June 22 . . −25 11 34.2

Anonymous, 15h. 5m. 25s.
June 4 . . −37 3 16.9
12 . . 17.5
13 . . 18.5

B. A. C. 5006, 15h. 6m. 11s.
June 29 . . −25 42 15.6

B. A. C. 5018, 15h. 7m. 28s.
June 23 . . −27 22 15.6

Lacaille 6289, 15h. 8m. 7s.
July 3 . . −39 4 39.9

O. Arg. S. 14402, 15h. 8m. 18s.
June 15 . . −20 27 15.2

Anonymous, 15h. 8m. 51s.
June 4 . . −37 1 1.4

O. Arg. S. 14428, 15h. 10m. 23s.
June 24 . . −20 14 29.3

O. Arg. S. 14436, 15h. 10m. 51s.
June 15 . . −20 22 55.9

Anonymous, 15h. 11m. 8s.
June 4 . . −37 5 52.4
13 . . 53.4

O. Arg. N. 15259, 15h. 12m. 18s.
June 27 . . +67 20 29.3

O. Arg. S. 14459, 15h. 12m. 20s.
June 15 . . −20 23 36.0

Anonymous, 15h. 12m. 35s.
June 22 . . −24 30 8.8

Anonymous, 15h. 12m. 58s.
° ′ ″
June 13 . . −37 7 59.0

Anonymous, 15h. 13m. 34s.
June 4 . . −37 4 37.0
5 . . 37.8

Lacaille 6337, 15h. 13m. 52s.
June 5 . . −37 9 53.6
13 . . 53.3

Anonymous, 15h. 13m. 59s.
June 4 . . +37 7 58.0

O. Arg. N. 15272, 15h. 14m. 14s.
June 23 . . +45 29 25.3

B. A. C. 5064, 15h. 15m. 25s.
June 18 . . +50 41 7.9

Weisse XV, 254, 15h. 15m. 39s.
July 3 . . −13 7 8.1

O. Arg. S. 14508, 15h. 15m. 50s.
June 24 . . −26 47 25.1

Anonymous, 15h. 15m. 53s.
June 4 . . −37 6 6.0
13 . . 4.8

B. A. C. 5066, 15h. 16m. 14s.
June 24 . . −26 50 18.2

Anonymous, 15h. 16m. 36s.
June 12 . . −37 2 14.1

Anonymous, 15h. 17m. 34s.
June 12 . . −37 1 21.2

Lacaille 6372, 15h. 17m. 48s.
June 22 . . −36 0 44.0

Anonymous, 15h. 17m. 59s.
June 22 . . −36 8 9.3

O. Arg. S. 14544, 15h. 18m. 35s.
June 27 . . −20 55 19.8

Lacaille 6376, 15h. 18m. 59s.
July 13 . . −36 18 33.6

Lacaille 6382, 15h. 19m. 59s.
June 5 . . −37 10 27.6

Rumker 5093, 15h. 21m. 32s.
June 15 . . +44 45 29.8

Radcliffe 3387, 15h. 21m. 56s.
June 24 . . +44 27 41.5

Anonymous, 15h. 22m. 15s.
June 5 . . −37 14 22.4

O. Arg. S. 14607, 15h. 23m. 10s.
July 3 . . −21 25 53.1

ζ³ Libræ, 15h. 23m. 21s.
° ′ ″
June 18 . . −16 9 40.9
23 . . 42.1

Anonymous, 15h. 23m. 29s.
June 26 . . −23 12 26.1

Anonymous, 15h. 23m. 39s.
July 2 . . −32 10 43.7

Anonymous, 15h. 25m. 22s.
June 5 . . −37 41 50.8

B. A. C. 5111, (1st *) 15h. 25m. 27s.
June 13 . . −24 2 44.7

B. A. C. 5111, (2d *) 15h. 25m. 28s.
June 13 . . −24 2 48.8

ζ⁴ Libræ, 15h. 25m. 35s.
July 17 . . −16 24 34.9

ν¹ Bootis, 15h. 26m. 15s.
July 16 . . +41 16 37.9

O. Arg. S. 14669, 15h. 27m. 50s.
June 24 . . −27 46 6.3

Anonymous, 15h. 28m. 21s.
June 22 . . −23 45 48.0

Anonymous, 15h. 29m. 56s.
July 3 . . −21 41 9.5

Radcliffe 3411, 3h. 30m. 24s.
June 29 . . +44 29 58.4

40 Libræ, 15h. 30m. 39s.
July 13 . . −29 20 52.3

Radcliffe 3415, 15h. 31m. 20s.
June 23 . . +40 15 37.1
26 . . 38.0

Radcliffe 3416, 15h. 31m. 26s.
June 23 . . +40 13 53.6

41 Libræ, 15h. 31m. 27s.
June 4 . . −18 52 18.0
July 25 . . 17.7

Lacaille 6473, 15h. 32m. 13s.
June 13 . . −30 47 18.1

Anonymous, 15h. 33m. 30s.
June 22 . . −15 34 23.9

B. A. C. 5171, 15h. 34m. 12s.
July 17 . . −37 0 18.3

Weisse (2) XV, 822, 15h. 34m. 28s.
June 24 . . +43 9 19.2

τ⁶ Serpentis, 15h. 35m. 0s.
July 16 . . +16 26 44.4

B. A. C. 5167, 15h. 35m. 34s.

° ′ ″
July 2 . . −28 52 42.0

Lacaille 6499, 15h. 35m. 57s.

June 18 . . −31 11 7.1
July 3 . . 8.4

Anonymous, 15h. 37m. 9s.

June 26 . . −15 59 14.8

B. A. C. 5195, 15h. 37m. 45s.

July 13 . . −29 37 47.8

B. A. C. 5198, 15h. 38m. 17s.

July 23 . . −27 39 7.5

Lacaille 6517, (1st *) 15h. 38m. 44s.

June 22 . . −35 6 4.1

Lacaille 6517, (2d *) 15h. 38m. 46s.

June 22 . . −35 6 31.3

O. Arg. S. 14855, 15h. 39m. 1s.

June 13 . . −25 33 54.6

O. Arg. S. 14861, 15h. 39m. 14s.

June 13 . . −25 31 54.7

Lalande 28726, 15h. 39m. 55s.

June 23 . . −17 41 4.9

B. A. C. 5211, 15h. 40m. 7s.

June 13 . . −25 34 55.5

β Serpentis, 15h. 40m. 12s.

June 4 . . +15 49 49.0
July 2 . . 49.2

B. A. C. 5215, 15h. 40m. 24s.

July 17 . . −28 23 2.7

Weisse XV, 792, 15h. 42m. 31s.

June 26 . . −14 25 28.3

χ Lupi, 15h. 42m. 42s.

June 18 . . −33 13 45.7

μ Serpentis, 15h. 42m. 50s.

June 29 . . − 3 1 49.2

b Scorpii, 15h. 43m. 9s.

July 16 . . −25 21 15.5
25 . . 14.5

Weisse XV, 825, 15h. 43m. 38s.

June 24 . . − 2 39 27.2

δ Coronæ Borealis, 15h. 44m. 9s.

July 3 . . +26 28 6.5

Anonymous, 15h. 44m. 19s.

June 26 . . −14 22 40.1

Weisse XV, 848, 15h. 44m. 50s.

July 13 . . − 7 38 58.8

O. Arg. N. 15681, 15h. 44m. 54s.

° ′ ″
June 22 . . +66 15 46.5

O. Arg. N. 15688, 15h. 45m. 23s.

June 22 . . +66 15 51.2

A Scorpii, 15h. 45m. 48s.

July 2 . . −24 56 12.3

Weisse (2) XV, 1179, 15h. 46m. 34s.

June 23 . . +42 57 23.6

18 Ursæ Minoris, 15h. 46m. 50s.

July 17 . . +80 23 18.5

3 Scorpii, 15h. 46m. 51s.

July 23 . . −24 51 23.3

Weisse (2) XV, 1201, 15h. 48m. 19s.

June 23 . . +42 58 24.7

γ Serpentis, 15h. 50m. 27s.

June 18 . . +16 5 17.2
29 . . 18.3

48 Libræ, 15h. 50m. 54s.

July 16 . . −13 54 7.6

O. Arg. S. 15072, 15h. 50m. 55s.

July 13 . . −20 30 58.0

B. A. C. 5294, 15h. 51m. 34s.

June 26 . . −26 38 29.8

B. A. C. 5296, 15h. 51m. 35s.

June 13 . . −29 42 32.4

49 Libræ, 15h. 53m. 2s.

July 2 . . −16 8 54.9

O. Arg. S. 15108, 15h. 53m. 10s.

June 26 . . −26 40 34.1

Weisse (2) XV, 1330, 15h. 53m. 22s.

June 22 . . +42 36 46.2

B. A. C. 5310, 15h. 54m. 10s.

June 24 . . +37 0 51.1
July 17 . . 50.9

Lacaille 6648, 15h. 54m. 44s.

July 23 . . −30 34 35.3

O. Arg. S. 15147, 15h. 55m. 11s.

June 23 . . −23 48 31.8

Anonymous, 15h. 55m. 26s.

July 3 . . −24 17 55.7

O. Arg. S. 15183, 15h. 57m. 11s.

June 13 . . −23 16 14.4

O. Arg. S. 15191, 15h. 57m. 32s.

June 13 . . −23 18 37.4

Weisse XV, 1081, 15h. 57m. 48s.

° ′ ″
June 27 . . + 6 24 50.1

Weisse XV, 1086, 15h. 57m. 57s.

June 27 . . + 6 22 16.2

O. Arg. S. 15199, 15h. 58m. 4s.

July 13 . . +21 28 54.8

B. A. C. 5333, 15h. 58m. 12s.

June 18 . . −19 19 25.9
29 . . 24.7

O. Arg. N. 15864, 15h. 58m. 41s.

June 24 . . +70 5 6.1

O. Arg. N. 15876, 15h. 58m. 43s.

June 24 . . +70 6 19.4

O. Arg. S. 15227, 15h. 59m. 10s.

July 13 . . −21 30 35.8

O. Arg. S. 15240, 15h. 59m. 47s.

June 26 . . −20 30 53.5

O. Arg. S. 15242, 15h. 59m. 50s.

June 26 . . −20 35 20.8

O. Arg. S. 15271, 16h. 0m. 55s.

July 17 . . −29 54 37.8

Weisse (2) XV, 1561, 16h. 1m. 3s.

July 3 . . +42 22 52.5

B. A. C. 5357, 16h. 1m. 23s.

July 23 . . −39 46 59.3

B. A. C. 5359, 16h. 1m. 25s.

July 2 . . +10 14 28.6

B. A. C. 5365, 16h. 2m. 21s.

June 23 . . +24 14 13.0

c^1 Scorpii, 16h. 4m. 14s.

June 29 . . −28 4 35.3

Weisse XVI, 113, 16h. 7m. 40s.

June 18 . . −14 18 26.2

B. A. C. 5416, 16h. 7m. 53s.

July 2 . . −30 17 29.7

O. Arg. S. 15466, 16h. 9m. 19s.

July 13 . . −20 58 40.6

Weisse XVI, 176, 16h. 10m. 44s.

June 26 . . −13 7 15.8

Anonymous, 16h. 10m. 44s.

July 23 . . −30 10 39.9

Weisse (2) XVI, 326, 16h. 11m. 6s.

July 17 . . +41 39 0.5

B. A. C. 5441, 16h. 12m. 26s.

June 23 . . −29 11 55.7

O. Arg. N. 16057, 16h. 12m. 3

June 27 . . +53 33 40

O. Arg. S. 15571, 16h. 15m. 2

June 18 . . −16 42 3

B. A. C. 5474, 16h. 17m. 32s.

July 17 . . −29 5 54
23 . . 55.4

O. Arg. S. 15612, 16h. 17m. 3

July 13 . . −24 9 4

O. Arg. S. 15671, 16h. 22m.

June 23 . . −24 51 3

Weisse XVI, 393, 16h 22m. 9s.

June 27 . . −13 16 5

φ Ophiuchi, 16h. 23m. 43s.

June 18 . . −16 19 3
July 25 . .

Anonymous, 16h. 23m. 43s.

July 23 . . −33 11 2

Lacaille 6871, 16h. 24m. 35s.

July 23 . . −33 15 4

β Herculis, 16h. 24m. 38s.

July 2 . . +21 46 2
16 . .

Weisse XVI, 462, 16h. 25m. 4

July 13 . . −10 17 3

Anonymous, 16h. 26m. 33s.

July 17 . . −33 56 4

Weisse (2) XVI, 788, 16h. 2

July 3 . . +33 47

B. A. C. 5538, 16h. 27m. 4

August 6 . . −34 59

Lacaille 6891, 16h. 27m. 4

June 27 . . −33 55
July 7 . .

33 Herculis, 16h. 30m. 3

June 18 . . + 7 22
23 . .

Weisse XVI, 575, 16h. 31m.

July 13 . . + 0 18
23 . .

B. A. C. 5567, 16h. 32m. 5

July 2 . . −20

Radcliffe 3589, 16h. 33m.

July 3 . . +79 14

B. A. C. 5576, 16h. 33m. 5

June 27 . . −28 52

B. A. C. 5579, 16h. 34m. 3s.
° ′ ″
July 23 . . −17 29 18.4

O. Arg. S. 15868, 16h. 35m. 19s.
July 17 . . −21 5 29.9

39 Herculis, 16h. 36m. 20s.
July 16 . . +27 10 7.3

B. A. C. 5607, 16h. 37m. 25s.
July 13 . . −28 35 50.5

O. Arg. N. 16457, 16h. 38m. 13s.
June 18 . . +62 34 18.9

η Herculis, 16h. 38m. 28s.
June 23 . . +39 10 14.4
August 13 . . 13.1

25 Scorpii, 16h. 38m. 55s.
August 6 . . −25 17 21.6

O. Arg. N. 16481, 16h. 39m. 43s.
June 18 . . +62 33 17.7

19 Ophiuchi, 16h. 40m. 37s.
August 12 . . + 2 18 5.9

O. Arg. S. 15977, 16h. 41m. 2s.
July 17 . . −16 5 27.6

Anonymous, 16h. 41m. 40s.
June 27 . . −24 25 41.9
(10′ north of O. Arg. S. 15989.)

ε Scorpii, 16h. 41m. 45s.
July 2 . . −34 3 16.2

18 Ophiuchi, 16h. 41m. 50s.
June 27 . . −24 24 36.2

Weisse XVI, 794, 16h. 42m. 9s.
July 23 . . +13 49 22.6

Anonymous, 16h. 42m. 15s.
July 13 . . −30 1 34.8

B. A. C. 5641, 16h. 43m. 25s.
July 25 . . −24 36 31.3

Anonymous, 16h. 43m. 32s.
July 13 . . −30 8 54.8

50 Herculis, 16h. 45m. 35s.
June 23 . . +30 1 47.1
July 16 . . 46.2

B. A. C. 5672, 16h. 46m. 27s.
July 2 . . −30 45 44.6

O. Arg. S. 16100, 16h. 47m. 20s.
August 6 . . −29 3 46.8

23 Ophiuchi, 16h. 47m. 37s.
° ′ ″
July 9 . − 5 56 20.9

B. A. C. 5687, 16h. 47m. 46s.
July 20 . . −25 19 15.9

O. Arg. S. 16121, 16h. 48m. 21s.
July 17 . . −30 22 11.4

B. A. C. 5695, 16h. 48m. 32s.
August 13 . . −16 35 48.4

Weisse XVI, 913, 16h. 48m. 51s.
August 12 . . − 5 54 38.1

Anonymous, 16h. 48m. 56s..
July 13 . . −30 8 44.8

B. A. C. 5700, 16h. 49. 26s.
August 15 . . −19 19 54.3
June 27 (1st *) 56.8
(2d *) 55.4

Anonymous, 16h. 49m. 51s.
July 13 . . −30 0 32.6

Lacaille 7065, 16h. 50m. 4s.
July 23 . . −37 24 54.4

B. A..C. 5709, 16h. 52m. 0s.
July 16 . . −24 53 31.7

O. Arg. S. 16184, 16h. 52m. 6s.
July 13 . . −30 2 22.1

26 Ophiucih, 16h. 52m. 11s.
August 14 . . −24 47 16.5

Anonymous, 16h. 53m. 9s.
July 25 . . −37 6 24.0

Weisse XVI, 1011, 16h. 54m. 27s.
August 6 . . − 4 1 26.2

O. Arg. N. 16707, 16h. 55m. 32s.
July 2 . . +59 59 39.7

B. A. C. 5730, 16h. 55m. 36s.
July 23 . . −24 3 8.3

O. Arg. S. 16256, 16h. 55m. 41s.
June 27 . . −19 18 7.7

B. A. C. 5737, 16h. 56m. 16s.
August 13 . . −28 23 12.5

B. A. C. 5742, 16h. 56m. 33s.
July 23 . . −24 3 15.9

d Herculis, 16h. 56m. 49s.
June 23 . . +33 45 28.3

O. Arg. N. 16722, 16h. 56m. 50s.
July 2 . . +59 59 34.1

B. A. C. 5748, 16h. 57m. 20s.
° ′ ″
August 15 . . −10 54 13.4

Dorpat 2119, 16h. 59m. 9s.
June 27 . . −13 45 16.2
July 17 . . 15.5

60 Herculis, 16h. 59m. 21s.
June 18 . . +12 55 16.3

B. A. C. 5762, 16h. 59m. 24s.
August 12 . . −30 53 58.7

B. A. C. 5768, 17h. 0m. 28s.
August 14 . . −30 13 40.9

O. Arg. S. 16360, 17h. 0m. 45s.
July 13 . . −24 15 3.6

Anonymous, 17h. 1m. 21s.
July 13 . . −24 11 16.2

B. A. C. 5774, 17h. 1m. 31s.
July 9 . . − 0 54 20.5
16 . . 21.4

O. Arg. S. 31166, 17h. 2m. 14s.
August 6 . . −20 30 40.7

O. Arg. S. 31199, 17h. 3m. 22s.
August 6 . . −20 29 4.5

O. Arg. S. 16420, 17h. 3m. 33s.
July 23 . . −26 32 15.9

B. A. C. 5789, 17h. 4m. 6s.
August 13 . . −26 52 37.6

Lacaille 7168, 17h. 4m. 59s.
August 15 . . −38 8 10.3

B. A. C. 5800, 17h. 6m. 8s.
August 14 . . −26 49 32.5

Anonymous, 17h. 6m. 26s.
June 18 . . −33 35 30.0
July 17 . . 29.2

O. Arg. S. 16503, 17h. 7m. 11s.
August 12 . . −30 6 46.0

B. A. C. 5807, 17h. 7m. 16s.
June 18 . . −33 35 6.8

Weisse XVII, 107, 17h. 7m. 53s.
July 2 . . +14 43 47.0
9 . . 48.3

Weisse XVII, 115, 17h. 8m. 21s.
June 27 . . +14 27 11.5
July 25 . . 10.5

Weisse XVII, 117, 17h. 8m. 25s.
July 2 . . +14 42 16.4
9 . . 18.5

B. A. C. 5818, 17h. 8m. 33s.
° ′ ″
August 18 . . −30 12 10.2

a Herculis, (2d *,) 17h. 8m. 45s.
June 23 . . +14 32 23.7

B. A. C. 5824, 17h. 9m. 51s.
August 15 . . −32 24 34.0

O. Arg. S. 16600, 17h. 11m. 38s.
August 14 . . −22 51 2.2

Lacaille 7230, 17h. 11m. 50s.
August 6 . . −37 52 59.6

O. Arg. S. 16607, 17h. 11m. 56s.
August 13 . . −26 28 14.5

u Herculis, 17h. 12m. 31s.
July 23 . . +33 14 29.6

Lalande 31492, 17h. 13m. 24s.
July 17 . . − 5 22 22.9

O. Arg. S. 16680, 17h. 14m. 46s.
July 25 . . −22 34 16.6

w Herculis, 17h. 15m. 48s.
July 16 . . +32 38 12.5
August 18 . . 11.8

Lacaille 7269, 17h. 16m. 30s.
August 15 . . −34 26 19.6

Weisse (2) XVII, 486, 17h. 17m. 38s.
August 14 . . +17 0 2.0

O. Arg. S. 16749, 17h. 17m. 39s.
July 2 . . −28 31 52.0

Weisse (2) XVII, 487, 17h. 17m. 43s.
August 14 . . +17 1 37.2

Anonymous, 17h. 17m. 51s.
August 12 . . −31 31 16.4

Anonymous, 17h. 18m. 11s.
August 12 . . −31 29 26.4

Weisse (2) XVII, 523, 17h. 19m. 9s.
August 14 . . +17 3 16.2

ρ Herculis, (1st *,) 17h. 19m. 12s.
July 13 . . +37 16 4.1

ρ Herculis, (2d *,) 17h. 19m. 12s.
July 13 . . +37 16 1.5

B. A. C. 5884, 17h. 19m. 20s.
July 23 . . −29 36 30.8
August 19 . . 31.4

B. A. C. 5890, 17h. 19m. 44s.
August 13 . . − 4 58 9.7

Weisse (2) 552, 17h. 20m. 7s.

° ′ ″

August 14 . . +17 2 1.7

O. Arg. N. 17136, 17h. 20m. 32s.

July 9 . . +77 29 6.5

Weisse (2) XVII, 596, 17h. 21m. 11s.

August 14 . . +17 5 0.0

O. Arg. S. 16842, 17h. 21m. 59s.

August 15 . . −15 55 37.9

O. Arg. S. 16856, 17h. 22m. 33s.

August 15 . . −15 54 33.5

Lacaille 7330, 17h. 23m. 48s.

August 6 . . −34 10 41.3

B. A. C. 5914, 17h. 24m. 35s.

July 2 . . −32 57 34.8

B. A. C. 5919, 17h. 24m. 50s.

July 25 . . + 2 49 24.7

O. Arg. S. 16908, 17h. 24m. 51s.

August 15 . . −15 59 42.4

λ Herculis, 17h. 25m. 30s.

July 16 . . +26 12 37.2

Anonymous, 17h. 25m. 46s.

August 13 . . −32 30 54.9

Anonymous, 17h. 25m. 52s.

August 13 . . −32 28 1.0

B. A. C. 5932, 17h. 27m. 34s.

August 15 . . −38 32 20.7

Weisse XVII, 508, 17h. 28m. 1s.

July 17 . . +12 36 19.5

B. A. C. 5938, 17h. 28m. 29s.

July 18 . . −32 2 28.9

O. Arg. S. 16978, 17h. 28m. 37s.

August 14 . . −17 46 25.0

Lacaille 7357, 17h. 28m. 56s.

August 19 . . −37 46 22.6

B. A. C. 5960, 17h. 31m. 33s.

July 2 . . −32 7 28.5
August 6 . . 31.0

Anonymous, 17h. 31m. 35s.

August 12 . . −32 5 2.3

Anonymous, 17h. 31m. 43s.

July 2 . . −32 10 49.8
9 . . 49.9

Anonymous, 17h. 32m. 3s.

August 6 . . −32 7 30.1

Anonymous, 17h. 32m. 16s.

° ′ ″

August 12 . . −32 4 51.7

B. A. C. 5964, 17h. 32m. 31s.

July 2 . . −32 8 27.6
9 . . 27.6

B. A. C. 5968, 17h. 33m. 12s.

August 12 . . −32 2 25.1

Lacaille 7395, 17h. 33m. 23s.

August 18 . . −33 26 1.5

Anonymous, 17h. 33m. 38s.

August 15 . . −35 25 46.0

O. Arg. S. 17094, 17h. 34m. 30s.

August 13 . . −23 40 7.5

Anonymous, 17h. 34m. 39s.

August 14 . . −27 46 36.8

B. A. C. 5980, 17h. 35m. 3s.

August 27 . . −32 35 52.0

Anonymous, 17h. 35m. 7s.

August 15 . . −35 26 7.3

ι Herculis, 17h. 35m. 48s.

July 25 . . +46 4 33.2

Lacaille 7414, 17h. 36m. 17s.

August 15 . . −35 28 12.0

O. Arg. S. 17132, 17h. 36m. 25s.

July 18 . . −28 7 0.2

B. A. C. 5992, 17h. 36m. 34s.

July 16 . . −22 7 60.0
17 . . 58.6

β Ophiuchi, 17h. 37m. 3s.

July 13 . . + 4 37 25.1
August 19 . . 26.4

Lacaille 7424, 17h. 38m. 12s.

July 9 . . −38 3 24.0
August 6 . . 23.5

Lacaille 7430, 17h. 39m. 9s.

August 18 . . −34 15 30.3

Lacaille 7433, 17h. 39m. 32s.

July 9 . . −38 5 0.4
August 6 . . 1.1

Anonymous, 17h. 40m. 0s.

July 9 . . −38 4 9.8
August 6 . . 10.8

Lacaille 7443, 17h. 40m. 25s.

August 14 . . −38 56 11.2

Anonymous, 17h. 43m. 10s.

August 13 . . −31 22 23.8

O. Arg. S. 17275, 17h. 43m. 23s.

° ′ ″

July 23 . . −17 12 55.3

B. A. C. 6032, 17h. 43m. 40s.

August 15 . . −31 17 25.2

B. A. C. 6031, 17h. 43m. 40s.

September 5 . . −34 22 43.9

O. Arg. S. 17291, 17h. 44m. 30s.

July 17 . . −27 3 22.2

B. A. C. 6044, 17h. 45m. 24s.

August 27 . . −27 15 0.0

O. Arg. S. 17320, 17h. 45m. 33s.

July 18 . . −28 39 20.9

Anonymous, 17h. 46m. 9s.

July 2 . . −34 30 42.3

Weisse XVII, 929, 17h. 46m. 25s.

August 18 . . + 8 40 52.1

Anonymous, 17h. 46m. 46s.

August 12 . . −28 43 37.9

Anonymous, 17h. 46m. 52s.

July 2 . . −34 26 6.9

Anonymous, 17h. 47m. 7s.

August 6 . . −31 55 44.1

Anonymous, 17h. 49m. 0s.

August 14 . . −32 1 42.2

B. A. C. 6071, 17h. 49m. 56s.

July 16 . . − 4 3 39.7
25 . . 38.5

Anonymous, 17h. 50m. 1s.

August 15 . . −36 50 34.1

B. A. C. 6070, 17h. 50m. 4s.

August 15 . . −36 50 30.1

B. A. C. 6072, 17h. 50m. 25s.

August 12 . . −28 44 28.7

Lacaille 7514, 17h. 50m. 27s.

July 9 . . −41 28 15.8

ν Ophiuchi, 17h. 51m. 43s.

July 17 . . − 9 45 17.8

O. Arg. S. 17447, 17h. 51m. 54s.

July 23 . . −25 8 56.8

B. A. C. 6081, 17h. 52m. 16s.

September 7 . . −20 19 34.6

Anonymous, 17h. 52m. 26s.

September 5 . . −28 42 1.7

B. A. C. 6083, 17h. 53m. 1s.

° ′ ″

July 18 . . −36 22 8.9
August 18 . . 10.1

Anonymous, 17h. 53m. 25s.

August 18 . . −36 21 8.2

O. Arg. S. 17503, 17h. 54m. 21s.

August 14 . . −15 38 30.6

B. A. C. 6098, 17h. 54m. 51s.

August 27 . . −20 44 1.7

O. Arg. S. 17533, 17h. 55m. 42s.

August 13 . . −27 43 44.1

O. Arg. S. 17535, 17h. 55m. 45s.

August 13 . . −27 44 25.3

O. Arg. S. 17540, 17h. 55m. 57s.

August 31 . . −24 18 44.0

O. Arg. S. 17553, 17h. 56m. 28s.

August 12 . . −24 23 13.0

O. Arg. S. 17558, 17h. 56m. 30s.

August 6 . . −27 51 58.9

O. Arg. S. 17560, 17h. 56m. 32s.

August 12 . . −24 21 47.2

Lacaille 7546, 17h. 56m. 40s.

July 9 . . −37 28 26.0

γ¹ Sagittarii, 17h. 56m. 43s.

July 16 . . −29 34 58.0

Anonymous, 17h. 56m. 45s.

July 25 . . −23 36 20.3

O. Arg. S. 17576, 17h. 57m. 10s.

August 6 . . −27 50 16.7

γ² Sagittarii, 17h. 57m. 26s.

August 25 . . −30 25 22.5

Anonymous, 17h. 57m. 19s.

July 9 . . −37 30 2.5

Anonymous, 17h. 58m. 22s.

August 15 . . −21 28 6.3

B. A. C. 6125, 17h. 59m. 23s.

July 18 . . −21 27 16.1
August 14 . . 14.8

O. Arg. S. 17648, 17h. 59m. 33s.

August 27 . . −21 12 43.9

B. A. C. 6127, 17h. 59m. 51s.

September 5 . . −28 28 7.6

		° ′ ″
O. Arg. S. 17681, 18h. 0m. 41s.		
August	27 . .	−21 16 4.4
Lalande 33210, 18h. 0m. 50s.		
July	18 . .	−21 27 55.0
August	14 . .	50.8
	15 . .	53.7
72 Ophiuchi, 18h. 1m. 12s.		
July	23 . .	+ 9 32 50.6
September	7 . .	51.0
Lamont 5992, 18h. 1m. 33s.		
August	31 . .	+ 2 37 6.2
(Differs 1′ from Lamont.)		
Anonymous, 18h. 1m. 55s.		
August	18 . .	−31 7 38.1
Weisse XVIII, 18, 18h. 2m. 56s.		
August	31 . .	+ 2 34 49.7
73 Ophiuchi, 18h. 3m. 7s.		
August	12 . .	+ 3 58 23.6
Anonymous, 18h. 5m. 17s.		
August	13 . .	−37 39 7.6
September	5 . .	6.0
Anonymous, 18h. 5m. 22s.		
July	9 . .	−34 37 41.3
Anonymous, 18h. 5m. 35s.		
August	13 . .	−37 40 55.6
September	5 . . .	55.7
B. A. C. 6173, 18h. 6m. 41s.		
August	25 . .	−29 51 25.4
Anonymous, 18h. 6m. 44s.		
August	14 . .	−18 57 50.2
Lacaille 7629, 18h. 6m. 47s.		
August	15 . .	−34 37 47.1
B. A. C. 6174, 18h. 7m. 0s.		
August	6 . .	−36 36 37.0
O. Arg. S. 17892, 18h. 7m. 20s.		
August	14 . .	−18 58 43.2
	27 . .	43.8
O. Arg. S. 17905, 18h. 7m. 37s.		
July	23 . .	−19 1 44.6
O. Arg. S. 17916, 18h. 7m 47s.		
August	14 . .	−18 57 41.2
Anonymous, 18h. 7m. 53s.		
July	25 . .	−18 41 55.2
September	7 . .	54.5
O. Arg. S. 17928, 18h. 8m. 6s.		
July	23 . .	−18 59 25.9
August	27 . .	28.0

		° ′ ″
Anonymous, 18h. 8m. 46s.		
August	14 . .	−19 0 44.1
	27 . .	45.1
Lacaille 7646, 18h. 8m. 58s.		
August	18 . .	−34 8 56.9
O. Arg. S. 17965, 18h. 9m. 19s.		
July	23 . .	−19 0 35.5
August	14 . .	33.7
	27 . .	34.7
Lacaille 7657, 18h. 9m. 50s.		
July	18 . .	−34 43 51.7
O. Arg. S. 18000, 18h. 10m. 20s.		
August	12 . .	−18 44 49.0
O. Arg. S. 18017, 18h. 11m. 6s.		
August	12 . .	−18 39 45.1
Lacaille 7661, 18h. 11m. 33s.		
September	5 . .	−35 28 43.9
Anonymous, 18h. 11m. 55s.		
August	15 . .	−17 46 21.3
Anonymous, 18h. 12m. 47s.		
August	13 . .	−28 24 4.0
B. A. C. 6217, 18h. 13m. 32s.		
July	25 .	−24 58 16.6
August	6 . .	14.9
Anonymous, 18h. 14m. 30s.		
August	25 . .	−26 30 17.1
Anonymous, 18h. 14m. 34s.		
August	25 . .	−26 30 58.1
Anonymous, 18h. 15m. 58s.		
August	31 . .	−38 28 25.8
Anonymous, 18h. 17m. 4s.		
August	14 . .	−32 12 40.7
B. A. C. 6244, 18h. 17m. 26s.		
August	18 . .	−31 49 23.1
	27 . .	23.6
Dorpat 2313, (1st *,) 18h. 17m. 43s.		
August	15 . .	− 6 40 16.3
Dorpat 2313, (2d *,) 18h. 17m. 43s.		
August	15 . .	− 6 40 10.3
B. A. C. 6249, 18h. 18m. 19s.		
July	18 . .	−30 27 44.6
O. Arg. S. 18234, 18h. 20m. 3s.		
July	25 . .	−26 50 40.4
August	6 . .	36.8
d Serpentis, 18h. 20m. 34s.		
August	12 . .	+ 0 7 16.6

		° ′ ″
Weisse XVIII, 473, 18h. 21m. 10s.		
August	12 . .	+ 0 7 24.1
B. A. C. 6273, 18h. 21m. 21s.		
September	16 . .	−25 20 10.8
Anonymous, 18h. 21m. 28s.		
August	13 . .	−36 54 14.7
Anonymous, 18h. 22m. 11s.		
September	7 . .	−35 24 23.2
B. A. C. 6283, 18h. 22m. 17s.		
September	5 . .	−28 52 41.3
Lacaille 7741, 18h. 22m. 23s.		
August	13 .	−36 53 37.5
O. Arg. S. 18317, 18h. 23m. 25s.		
August	31 . .	−23 24 7.5
September	18 . .	11.5
Anonymous, 18h. 23m. 51s.		
August	14 . .	−33 1 38.8
θ Coronæ Australis, 18h. 24m. 13s.		
August	18 . .	−42 24 10.8
Anonymous, 18h. 24m. 40s.		
August	14 . .	−33 4 20.8
Anonymous, 18h. 24m. 51s.		
August	13 . .	−36 53 51.8
B. A. C. 6310, 18h. 25m. 52s.		
August	25 . .	− 30 58 39.4
	27 . .	39.3
Anonymous, 18h. 25m. 59s.		
August	25 . .	−30 57 45.7
Lacaille 7765, 18h. 26m. 13s.		
September	5 . .	−39 47 25.9
25 Sagittarii, 18h. 26m. 36s.		
July	18 . .	− 24 19 8.3
Anonymous, 18h. 27m. 2s.		
August	15 . .	−36 54 35.3
Anonymous, 18h. 29m. 14s.		
July	25 . .	− 21 45 19.5
August	12 . .	17.5
O. Arg. S. 18489, 18h. 30m. 33s.		
September	21 . .	−18 29 29.4
Lacaille 7802, 18h. 30m. 40s.		
September	16 . .	− 34 16 31.4
Anonymous, 18h. 30m. 56s.		
August	18 . .	−32 8 43.1
O. Arg. S. 18495, 18h. 31m. 6s.		
August	6 . .	−16 25 9.7

		° ′ ″
Anonymous, 18h. 31m. 23s.		
August	31 . .	−12 43 21.8
September	7 . .	20.3
O. Arg. S. 18505, 18h. 31m. 46s.		
August	25 . .	−25 36 47.5
O. Arg. S. 18506, (1st *,) 18h. 31m. 50s.		
August	14 . .	−25 37 8.0
	25 . .	8.5
O. Arg. S. 18506, (2d *,) 18h. 31m. 50s.		
August	14 . .	−25 37 0.7
	25 . .	4.8
Anonymous, 18h. 33m. 32s.		
July	18 . .	−31 35 49.0
O. Arg. S. 18536, 18h. 33m. 36s.		
September	5 . .	−25 6 23.4
Lacaille 7823, 18h. 33m. 51s.		
August	15 . .	−39 24 21.4
Anonymous, 18h. 34m. 15s.		
August	13 . .	−37 58 2.3
O. Arg. S. 18568, 18h. 34m. 53s.		
September	5 . .	−25 9 18.4
2 Aquilæ, 18h. 35m. 9s.		
September	18 . .	− 9 10 26.3
Anonymous, 18h. 35m. 15s.		
September	8 . .	−11 13 59.3
O. Arg. S. 18584, 18h. 35m. 37s.		
August	31 . .	−19 21 1.0
O. Arg. S. 18587, 18h. 35m. 50s.		
September	16 . .	−21 2 36.3
O. Arg. N. 18534, 18h. 36m. 40s.		
August	27 . .	+72 17 59.6
B. A. C. 6369, 18h. 36m. 49s.		
September	5 . .	−25 8 18.8
O. Arg. S. 18609, 18h. 36m. 51s.		
September	16 . .	−21 5 58.6
Lalande 35004, 18h. 37m. 32s.		
September	21 . .	+72 9 35.5
O. Arg. S. 18636, 18h. 38m. 17s.		
August	14 . .	−18 29 44.9
September	7 . .	44.6
Lalande 35006, 18h. 38m. 17s.		
August	27 . .	+72 15 46.9
B. A. C. 6376, 18h. 38m. 20s.		
September	18 . .	−19 44 20.0

B. A. C. 6377, 18h. 38m. 31s.

° ′ ″

July 25 . . −29 45 54.5

Lalande 35041, 18h. 39m. 13s.

September 21 . . +72 8 41.5

Lalande 35041, 18h. 39m. 16s.

July 18 . . +72 8 46.4

August 18 . . 45.8

6 Aquilæ, 18h. 40m. 17s.

August 6 . . − 4 53 4.8

O. Arg. S. 18674, 18h. 40m. 21s.

August 5 . . −18 22 2.5

12 . . 0.8

Lalande 34860, 18h. 40m. 33s.

August 31 . . −19 20 16.9

Lalande 34916, 18h. 41m. 56s.

August 15 . . −19 17 10.3

B. A. C. 6400, 18h. 42m. 19s.

August 25 . . −22 59 36.4

Lalande 34984, 18h. 42m. 31s.

September 8 . . − 6 3 29.0

B. A. C. 6401, 18h. 42m. 32s.

August 26 . . −26 54 57.5

Anonymous, 18h. 42m. 39s.

August 13 . . −30 56 34.0

September 18 . . 34.5

Weisse XVIII, 1058, 18h. 42m. 45s.

September 8 . . − 6 5 20.9

Anonymous, 18h. 44m. 3s.

August 14 . . −31 8 17.0

September 5 . . 15.5

B. A. C. 6413, 18h. 44m. 20s.

September 7 . . −29 31 49.1

16 . . 48.4

Lalande 35046, 18h. 44m. 35s.

July 25 . . −20 21 19.1

August 31 . . 17.2

Schjellerup 7016, 18h. 47m. 11s.

September 21 . . − 7 29 0.5

O. Arg. S. 18802, 18h. 46m. 18s.

August 12 . . −27 59 26.3

Anonymous, 18h. 47m. 26s.

July 18 . . −33 25 12.5

Anonymous, 18h. 47m. 48s.

July 18 . . −33 25 52.2

Lacaille 7922, 18h. 48m. 33s.

August 6 . . −39 59 27.6

Weisse XVIII, 1219, 18h. 48m. 57s.

° ′ ″

August 13 . . − 9 33 21.5

14 . . 22.6

B. A. C. 6455, 18h. 49m. 45s.

August 14 . . −30 59 36.5

ε Coronæ Australis, 18h. 49m. 56s.

September 7 . . −37 16 24.3

16 . . 25.2

O. Arg. S. 18878, 18h. 50m. 0s.

August 25 . . −21 19 8.9

O. Arg. S. 18883, 18h. 50m. 0s.

September 8 . . −28 55 20.1

Anonymous, 18h. 50m. 38s.

August 15 . . −22 8 24.3

Weisse XVIII, 1277, 18h. 51m. 9s.

September 18 . . − 9 28 44.5

Weisse XVIII, 1276, 18h. 51m. 12s.

August 5 . . −14 56 20.2

O. Arg. S. 18907, 18h. 51m. 25s.

August 15 . . −22 4 34.7

September 5 . . 33.5

O. Arg. S. 18913, 18h. 51m. 44s.

August 31 . . −19 27 7.6

September 21 . . 6.6

O. Arg. S. 18915, 18h. 51m. 52s.

September 8 . . −28 52 36.0

Weisse XVIII, 1294, 18h. 52m. 1s.

July 25 . . − 9 8 35.6

Lacaille 7955, 18h. 52m. 52s.

August 12 . . −37 4 6.9

O. Arg S. 18939, 18h. 52m. 54s.

September 8 . . −28 53 20.1

O. Arg. S. 18953, 18h. 53m. 25s.

September 21 . . −19 31 36.4

B. A. C. 6490, 18h. 54m. 29s.

August 22 . . −25 1 24.2

O. Arg. S. 18986, 18h. 55m. 22s.

August 14 . . −17 1 24.4

B. A. C. 6502, 18h. 56m. 23s.

August 18 . . −23 5 5.9

O. Arg. S. 19007, 18h. 56m. 27s.

August 6 . . −20 59 21.5

Radcliffe 4208, 18h. 57m 2s.

August 26 . . +86 32 30.9

Lacaille 7985, 18h. 57m. 6s.

° ′ ″

July 18 . . −33 58 31.8

Weisse XVIII, 1430, 18h. 57m. 7s.

August 13 . . − 8 45 46.2

γ Coronæ Australis, 18h. 57m. 37s.

September 16 . . −37 14 49.2

Anonymous, 18h. 58m. 43s.

August 5 . . −23 26 56.7

31 . . 54.4

O. Arg. S. 19083, 18h. 59m. 23s.

August 15 . . −16 25 33.2

September 5 . . 32.5

Lamont 6597, 19h. 0m. 28s.

August 14 . . − 0 51 49.8

Lalande 35791, 19h. 1m. 13s.

August 22 . . − 1 28 48.6

September 7 . . 47.1

Lacaille 8022, 19h. 3m. 20s.

September 8 . . −37 47 39.0

Anonymous, 19h. 3m. 30s.

August 18 . . − 8 2 4.5

September 18 . . 2.8

Lacaille 8025, 19h. 3m. 47s.

August 6 . . −37 44 8.9

September 8 . . 8.5

Lacaille 8041, 19h. 6m. 50s.

July 18 . . −37 10 13.7

Lacaille 8045, 19h. 7m. 17s.

September 5 . . −33 45 10.2

Anonymous, 19h. 7m. 18s.

September 21 . . −33 48 8.2

Lacaille 8051, 19h. 8m. 3s.

September 5 . . −33 44 49.7

η Lyræ, (2d *,) 19h. 9m. 22s.

August 5 . . +38 55 29.3

September 7 . . 29.6

Weisse XIX, 224, 19h. 10m. 37s.

August 22 . . + 0 49 47.2

September 18 . . 49.4

Lacaille 8061, 19h. 10m. 38s.

August 15 . . −37 7 35.5

Lalande 36252, 19h. 11m. 7s.

August 31 . . −22 20 11.2

B. A. C. 6590, 19h. 11m. 34s.

August 18 . . −15 45 36.9

24 Aquilæ, 19h. 12m. 12s.

° ′ ″

July 18 . . + 0 6 15.1

October 2 . . 16.8

Lacaille 8077, 19h. 12m. 53s.

October 5 . . −35 13 10.3

Schjellerup 7273, 19h. 13m. 5s.

September 8 . . −10 11 49.1

Lacaille 8090, 19h 15m. 14s.

October 5 . . −35 12 47.4

B. A. C. 6628, 19h. 16m. 23s.

September 7 . . −28 6 51.7

Anonymous, 19h. 17m. 16s.

August 15 . . −23 17 32.3

September 18 . . 30.3

λ¹ Sagittarii, 19h. 17m. 22s.

August 5 . . −24 45 30.3

λ² Sagittarii, 19h. 17m. 29s.

August 5 . . −24 39 51.7

25 . . 51.3

λ³ Sagittarii, 19h. 17m. 37s.

August 18 . . −24 12 52.8

O. Arg. S. 19525, 19h. 18m. 5s.

September 5 . . −19 25 33.1

B. A. C. 6639, 19h. 18m. 43s.

July 18 . . −29 59 51.2

Greenwich Cat. 1728, 19h. 18m. 46s

August 22 . . −15 18 31.2

Weisse XIX, 616, 19h. 21m. 9s.

August 31 . . +19 29 32.8

Anonymous, 19h. 21m. 11s.

September 21 . . −15 21 50.1

O. Arg. S. 19600, 19h. 21m. 12s.

September 8 . . −26 1 21.2

O. Arg. S. 19609, 19h. 21m. 38s.

September 8 . . −26 3 57.2

O. Arg. S. 19623, 19h. 22m. 3s.

September 18 . . −19 45 21.0

O. Arg. S. 19631, 19h. 22m. 31s.

September 18 . . −19 39 6.8

Lacaille 8121, 19h. 22m. 38s.

October 5 . . −42 41 57.9

Lacaille 8128, 19h. 23m. 10s.

September 7 . . −36 13 41.9

α Vulpeculæ, 19h. 23m. 18s.

October 2 . . +24 24 12.5

Lacaille 8143, 19h. 25m. 10s.

° ′ ″

August 25 . . −34 28 20.4

Lacaille 8138, 19h. 25m. 12s.

August 25 . . −40 18 40.6

β Cygni, (2d *,) 19h. 25m. 32s.

August 22 . . +27 41 36.7

O. Arg. S. 19693, 19h. 25m. 36s.

September 5 . . −19 32 51.0

Anonymous, 19h. 27m. 45s.

August 31 . . −28 58 59.9

B. A. C. 6700, 19h. 27m. 54s.

August 5 . . −21 3 29.5
September 16 . . 28.3

O. Arg. S. 19737, 19h. 27m. 54s.

August 31 . . −28 57 2.5

Lacaille 8159, 19h. 28m. 13s.

July 18 . . −32 58 30.5

O. Arg. S. 19746, 19h. 28m. 17s.

August 31 . . −28 57 29.2

Anonymous, 19h. 28m. 32s.

September 21 . . −41 47 41.6

Lacaille 8158, 19h. 28m. 37s.

September 21 . . −41 44 38.2

Weisse XIX, 692, 19h. 28m. 40s.

September 18 . . −10 38 53.8

O. Arg. S. 19758, 19h. 28m. 54s.

October 5 . . −27 47 6.3

Anonymous, 19h. 29m. 19s.

September 8 . . −39 2 43.7

Weisse XIX, 719, 19h. 29m. 38s.

September 18 . . −10 43 9.9

O. Arg. S. 19796, 19h. 30m. 20s.

September 5 . . −28 4 37.7

O. Arg. S. 19798, 19h. 30m. 26s.

August 25 . . −29 1 51.8

Anonymous, 19h. 34m. 14s.

August 5 . . −32 32 24.1

Lacaille 8193, 19h. 34m. 23s.

August 15 . . −36 17 3.9

Weisse XIX, 875, 19h. 34m. 47s.

August 22 . . +11 37 31.6

Weisse XIX, 886, 19h. 35m. 11s.

August 22 . . +11 38 54.2

Lacaille 8197, 19h. 35m. 26s.

° ′ ″

October 5 . . −41 54 55.7

Anonymous, 19h. 36m. 22s.

September 18 . . + 8 3 21.6

Dorpat 2562, (1st *) 19h. 36m. 28s.

August 25 . . + 8 4 25.4

Dorpat 2562, (2d *) 19h. 36m. 30s.

August 25 . . + 8 4 32.9

Anonymous, 19h. 36m. 42s.

September 8 . . −43 36 47.7

O. Arg. S. 19907, 19h. 36m. 53s.

September 5 . . −27 6 47.6

O. Arg. S. 19915, 19h. 37m. 6s.

September 7 . . −26 55 9.4

B. A. C. 6753, 19h. 37m. 10s.

July 18 . . −31 12 44.6

O. Arg. S. 19924, 19h. 37m. 47s.

September 7 . . −27 1 11.5

B. A. C. 6770, 19h. 41m. 0s.

August 5 . . −28 43 52.1
(Differs 1m. from B. A. C.)

Weisse (2) XIX, 1330, 19h. 41m. 36s.

August 31 . . +34 43 27.5

Anonymous, 19h. 41m. 59s.

September 16 . . −10 18 15.7

(* 119) W., 19h. 42m. 4s.

August 15 . . +58 26 32.6

B. A. C. 6786, 19h. 42m. 22s.

September 7 . . −27 2 23.9

O. Arg. S. 19990, 19h. 42m. 29s.

October 5 . . −27 36 35.8

O. Arg. S. 19998, 19h. 42m. 44s.

September 21 . . −26 29 39.4

O. Arg. S. 20002, 19h. 42m. 58s.

September 8 . . −26 57 50.3

57 Sagittarii, 19h. 44m. 38s.

August 25 . . −19 22 22.2

O. Arg. S. 20039, 19h. 45m. 26s.

September 18 . . −27 16 30.5

O. Arg. S. 20049, 19h. 46m. 12s.

September 7 . . −27 1 49.4

O. Arg. S. 20051, 19h. 46m. 26s.

September 7 . . −26 54 38.7

Lacaille 8271, 19h. 49m. 0s.

° ′ ″

August 5 . . −38 23 56.5
26 . . 56.7

O. Arg. S. 20090, 19h. 49m. 19s.

September 5 . . −26 33 46.2

Anonymous, 19h. 49m. 25s.

September 21 . . −27 51 47.5

O. Arg. S. 20100, 19h. 49m. 34s

September 21 . . −27 51 39.6

O. Arg. S. 20101, 19h. 49m. 35s.

September 16 . . −25 31 15.3

O. Arg. S. 20111, 19h. 50m. 44s.

September 18 . . −29 0 0.5

A Sagittarii, 19h. 51m. 2s.

September 5 . . −26 32 41.9

B. A. C. 6844, 19h. 51m. 25s.

September 8 . . −43 23 41.4

B. A. C. 6855, 19h. 52m. 20s.

August 22 . . +16 8 41.8

B. A. C. 6857, 19h. 52m. 45s.

August 25 . . +40 1 9.7
October 2 . . 10.7

Anonymous, 19h. 52m. 52s.

October 5 . . −23 11 23.0
16 . . 19.3

γ Sagittæ, 19h. 52m. 59s.

October 12 . . +19 8 26.9

B. A. C. 6864, 19h. 53m. 39s.

October 5 . . −23 5 31.2

63 Sagittarii, 19h. 54m. 41s.

September 16 . . −13 59 40.9
28 . . 41.6

Lacaille 8312, 19h. 54m. 59s.

September 7 . . −37 53 6.9

62 Aquilæ, 19h. 57m. 41s.

September 8 . . − 1 4 11.3

Lacaille 8341, 19h. 59m. 7s.

August 5 . . −36 1 35.9
20 . . 33.7

η Sagittæ, 19h. 59m. 24s.

August 22 . . +19 37 10.5
25 . . 11.4

Anonymous, 20h. 1m. 43s.

September 21 . . −16 18 18.8

ϑ Aquilæ, 20h. 4m. 36s.

August 22 . . − 1 12 17.3

ξ¹ Capricorni, 20h. 4m. 45s.

° ″

October 2 . . −12 46 33.9

18 Vulpeculæ, 20h. 5m. 8s.

August 25 . . +26 31 11.9

O. Arg. S. 20316, 20h. 5m. 30s.

September 8 . . −27 26 26.0

Anonymous, 20h. 5m. 55s.

September 7 . . −17 17 20.8
18 . . 19.6

Anonymous, 20h. 6m. 24s.

October 5 . . +16 20 29.8
16 . . 30.0

O. Arg. S. 20339, 20h. 7m. 19s.

August 20 . . −15 44 40.1

ρ Aquilæ, 20h. 8m. 15s.

August 5 . . +14 48 11.1

25 Vulpeculæ, 20h. 16m. 28s.

October 2 . . +24 1 58.7

B. A. C. 7014, 20h. 16m. 45s.

September 8 . . + 4 55 45.3

Anonymous, 20h. 17m. 27s.

September 18 . . −23 35 31.8

Anonymous, 20h. 17m. 57s.

August 20 . . −22 12 11.2

Lalande 39496, 20h. 23m. 38s.

October 5 . . +38 53 52.9
12 . . 52.4

Anonymous, 20h. 23m. 40s.

October 5 . . +38 56 38.7
12 . . 42.7

O. Arg. S. 20575, 20h. 24m. 25s.

August 20 . . −29 2 19.2

B. A. C. 7071, 20h. 24m. 46s.

August 20 . . −29 1 57.3

B. A. C. 7080, 20h. 25m. 17s.

September 7 . . −10 17 41.3

η Delphini, 20h. 27m. 49s.

October 2 . . +12 35 1.9

O. Arg. S. 20654, 20h. 30m. 2s.

September 18 . . −21 47 6.3

Weisse XX, 755, 20h. 30m. 49s.

October 5 . . −11 29 1.9

Weisse XX, 767, 20h. 31m. 11s.

October 16 . . −13 4 55.3

Weisse XX, 779, 20h. 31m. 37s.

October 16 . . −13 6 35.6

48 Cygni, 20h. 32m. 15s.

° ′ ″

September 28 . . +31 7 13.3

B. A. C. 7132, 20h. 32m. 16s.

September 28 . . +31 4 14.8

Weisse XX, 847, 20h. 34m. 0s.

August 20 . . − 9 58 53.3

Lacaille 8539, 20h. 36m. 0s.

September 18 . . −32 23 37.3
21 . . 38.0

O. Arg. S. 20812, 20h. 38m. 12s.

October 5 . . −21 19 22.1

17 Capricorni, 20h. 38m. 37s.

October 2 . . −21 59 3.4

Anonymous, 20h. 39m. 27s.

October 16 . . −28 10 17.5

B. A. C. 7195, 20h. 40m. 41s.

August 20 . . −23 19 20.3

Weisse (2) XX, 1357, 20h. 41m. 37s.

September 18 . . +33 53 54.8

Anonymous, 20h. 42m. 13s.

September 18 . . +33 54 31.0

Weisse XX, 1082, 20h. 43m. 7s.

September 21 . . − 7 58 4.6

β Microscopii, 20h. 43m. 51s.

October 12 . . −33 39 45.4

Lalande 40235, 20h. 44m. 9s.

September 28 . . −17 59 17.3
October 5 . . 18.2

17 Delphini, 20h. 49m. 28s.

October 2 . . +13 13 37.7

7 Aquarii, 20h. 49m. 51s.

August 20 . . −10 11 39.9

Anonymous, 20h. 51m. 37s.

September 18 . . −19 39 15.4

O. Arg. S. 21007, 20h. 51m. 47s.

October 5 . . −27 31 5.2

Anonymous, 20h. 51m. 54s.

September 18 . . −19 40 38.9

18 Delphini, 20h. 52m. 11s.

October 16 . . +10 20 22.1

20 Capricorni, 20h. 52m. 12s.

October 12 . . −19 32 14.7

Anonymous, 20h. 54m. 56s.

September 21 . . −12 58 50.0

2 Equulei, 20h. 55m. 48s.

° ′ ″

October 2 . . + 6 40 13.7

O. Arg. S. 21072, 20h. 56m. 34s.

August 20 . . −28 2 41.2

η Capricorni, 20h. 57m. 1s.

October 6 . . −20 22 3.6

Anonymous, 20h. 57m. 14s.

October 5 . . −32 51 35.2

δ Microscopii, 20h. 58m. 9s.

September 28 . . −30 38 21.2
October 12 . . 20.5

Lacaille 8681, 20h. 58m. 18s.

October 16 . . −35 8 44.5

2 Piscis Australis, 20h. 58m. 27s.

October 5 . . −32 51 35.5

O. Arg. S. 21154, 21h. 2m. 7s.

August 20 . . −23 9 16.3

ζ Equulei, 21h. 4m. 2s.

October 2 . . + 9 36 35.4

6 Equulei, 21h. 4m. 13s.

October 2 . . + 9 31 14.6

Lalande 41229, 21h. 4m. 16s.

September 21 . . +75 0 44.6

Lalande 41236, 21h. 4m. 21s.

September 21 . . +75 6 4.9

O. Arg. S. 21219, 21h. 5m. 56s.

September 28 . . −23 17 39.3

Weisse XXI, 137, 21h. 7m. 26s.

October 5 . . +19 42 27.5

φ Capricorni, 21h. 8m. 13s.

October 6 . . −21 11 23.1
16 . . 21.1

Lacaille 8758, 21h. 9m. 35s.

August 20 . . −31 17 12.5

B. A. C. 7393, 21h. 10m. 16s.

October 12 . . +74 41 40.4

Weisse (2) XXI, 325, 21h. 14m. 38s.

November 11 . . +19 17 35.9

Weisse (2) XXI, 327, 21h. 14m. 45s.

October 6 . . +18 17 27.2
12 . . 27.5

B. A. C. 7408, 21h. 14m. 59s.

November 12 . . − 9 52 38.7

ι Capricorni, 21h. 15m. 0s.

September 28 . . −17 22 10.7

17 Aquarii, 21h. 15m. 57s.

° ′ ″

November 12 . . − 9 52 18.0

18 Aquarii, 21h. 17m. 5s.

October 2 . . −13 25 3.5

Lalande 41614, 21h. 17m. 20s.

October 23 . . +38 12 28.6

Lalande 41624, 21h. 17m. 33s.

October 23 . . +38 4 49.0

Lalande 41627, 21h. 17m. 42s.

October 23 . . +38 9 12.4

5 Piscis Australis, 21h. 21m. 17s.

October 6 . . −31 48 13.3

Anonymous, 21h. 22m. 26s.

September 21 . . −23 48 34.4
October 5 . . 35.4

Anonymous, 21h. 22m. 37s.

September 21 . . −23 42 56.3

Weisse XXI, 522, 21h. 23m. 30s.

November 11 . . −14 51 30.8

Anonymous, 21h. 23m. 47s.

October 29 . . −16 25 27.8

2 Pegasi, 21h. 24m. 3s.

September 28 . . +23 3 42.5

O. Arg. S. 21452, 21h. 25m. 8s.

August 20 . . −24 43 22.1

Anonymous, 21h. 27m. 47s.

October 23 . . − 8 40 23.7

Weisse XXI, 662, 21h. 28m. 43s.

October 5 . . −10 33 43.0

Anonymous, 21h. 28m. 51s.

November 12 . . −36 27 55.3

Lacaille 8854, 21h. 29m. 0s.

November 12 . . −36 27 50.6

5 Pegasi, 21h. 31m. 42s.

September 28 . . +18 44 6.0

4 Pegasi, 21h. 32m. 1s.

October 12 . . + 5 11 12.5
30 . . 10.7

Anonymous, 21h. 32m. 1s.

October 29 . . −36 25 42.7

Lacaille 8873, 21h. 32m. 34s.

November 11 . . −35 7 5.0

Anonymous, 21h. 32m. 46s.

November 11 . . −35 6 25.3

d Aquarii, 21h. 32m. 58s.

° ′ ″

October 6 . . + 1 39 38.4

42 Capricorni, 21h. 34m. 28s.

October 12 . . −14 37 32.0

41 Capricorni, 21h. 34m. 35s.

August 20 . . −23 50 55.6

O. Arg. S. 21575, 21h. 34m. 35s.

October 5 . . −28 3 35.1

κ Capricorni, 21h. 35m. 24s.

October 26 . . −19 27 25.5

Weisse XXI, 896, 21h. 37m. 44s.

September 28 . . + 9 18 40.2

79 Cygni, 21h. 38m. 3s.

October 23 . . +37 41 22.3
November 12 . . 20.3

Weisse (2) XXI, 933, 21h. 38m. 13s.

October 23 . . +37 42 41.0
November 12 . . 38.9

Weisse XXI, 916, 21h. 38m. 42s.

October 29 . . − 0 48 23.3

ϑ Piscis Australis, 21h. 40m. 3s.

October 6 . . −31 29 53.9

B. A. C. 7586, 21h. 40m. 29s.

October 12 . . +24 56 30.6

Weisse XXI, 988, 21h. 42m. 24s.

October 5 . . −14 11 50.6

Anonymous, 21h. 44m. 56s.

October 30 . . −19 44 20.4

B. A. C. 7616, 21h. 45m. 55s.

September 28 . . − 4 36 5.9

Anonymous, 21h. 46m. 4s.

November 11 . . − 7 6 10.0

O. Arg. N. 22961, 21h. 46m. 12s.

October 12 . . +69 33 35.3

Anonymous, 21h. 46m. 28s.

October 29 . . + 3 3 45.5

Lacaille 8952, 21h. 46m. 29s.

October 23 . . −36 40 18.9

Weisse XXI, 1087, 21h. 47m. 17s.

November 19 . . −11 58 33.3

Anonymous, 21h. 47m. 23s.

November 12 . . −11 57 44.4

O. Arg. S. 21775, 21h. 52m. 0s.

October 26 . . −23 29 33.5

ANONYMOUS, 21h. 53m. 22s.

° ′ ″
October 28 . . −12 36 49.9
29 . . 47.9

O. ARG. S. 21796, 21h. 53m. 23s.

September 28 . . −23 55 0.1

18 PEGASI, 21h. 53m. 38s.

October 6 . . + 6 5 43.4

WEISSE XXI, 1240, 21h. 54m. 3s.

November 13 . . −13 38 45.5

ANONYMOUS, 21h. 54m. 23s.

October 30 . . −21 20 52.2
November 11 . . 57.7

WEISSE (2) XXI, 1331, 21h. 54m. 36s.

October 12 . . +34 0 26.0
November 4 . . 25.1

WEISSE XXI, 1253, 21h. 54m. 40s.

October 28 . . −12 36 53.7
29 . . 54.2

WEISSE XXI, 1255, 21h. 54m. 42s.

October 28 . . −12 37 3.3
29 . . 4.0

O. ARG. N. 23362, 22h. 0m. 28s.

October 12 . . +52 52 44.0

O. ARG. S. 21904, 22h. 0m. 33s.

November 4 . . −15 7 23.3

ι PEGASI, 22h. 0m. 57s.

September 28 . . +24 42 41.4

O. ARG. S. 21915, 22h. 1m. 29s.

November 19 . . −22 19 24.5

O. ARG. S. 21923, 22h. 1m. 56s.

November 11 . . −19 7 10.7
12 . . 11.8

O. ARG. N. 23438, 22h. 2m. 1s.

October 30 . . +52 30 34.2

O. ARG. S. 21944, 22h. 3m. 16s.

October 23 . . −24 11 26.0

LACAILLE 9052, 22h. 4m. 40s.

November 19 . . −40 50 30.5

LACAILLE 9047, 22h. 4m. 17s.

October 28 . . −38 56 36.5

ANONYMOUS, 22h. 5m. 16s.

October 29 . . −12 14 14.7

B. A. C. 7742, 22h. 5m. 35s.

September 28 . . +15 24 4.6
October 6 . . 3.0

WEISSE XXII, 129, 22h. 7m. 48s.

° ′ ″
October 30 . . + 1 20 18.7
November 4 . . 19.1

ANONYMOUS, 22h. 7m. 49s.

October 12 . . −26 17 30.8

ANONYMOUS, 22h. 8m. 27s.

November 11 . . −32 30 24.1

O. ARG. S. 22022, 22h. 8m. 30s.

November 12 . . −21 55 19.2

ANONYMOUS, 22h. 8m. 53s.

November 12 . . −21 56 23.3

WEISSE XXII, 155, 22h. 9m. 1s.

October 26 . . + 0 19 43.3

WEISSE XXII, 167, 22h. 9m. 35s.

October 29 . . −12 18 41.0

WEISSE XXII, 175, 22h. 9m. 48s.

October 29 . . −12 17 41.0

WEISSE (2) XXII, 291, 22h. 13m. 12s.

September 28 . . +37 6 46.8
October 23 . . 46.4

WEISSE (2) XXII, 292, 22h. 13m. 12s.

September 28 . . +37 7 2.1
October 23 . . 2.7

ANONYMOUS, 22h. 13m. 50s.

October 12 . . −22 17 54.4
28 . . 57.7

O. ARG. S. 22087, 22h. 13m. 57s.

October 12 . . −22 17 8.5

WEISSE XXII, 303, 22h. 15m. 52s.

October 26 . . + 2 22 2.3
30 . . 1.5
November 5 . . 3.2

O. ARG. S. 22123, 22h. 17m. 5s.

November 11 . . −22 15 18.1

WEISSE XXII, 331, 22h. 17m. 12s.

October 29 . . −11 50 35.6

LACAILLE 9127, 22h. 17m. 30s.

October 6 . . −27 30 57.4
November 19 . . 61.8

ANONYMOUS, 22h. 18m. 25s.

November 12 . . + 3 8 49.8

O. ARG. S. 22132, 22h. 18m. 27s.

November 11 . . −22 15 27.8

ANONYMOUS, 22h. 20m. 35s.

October 28 . . −39 45 2.3

O. ARG. S. 22165, 22h. 20m. 54s.

° ′ ″
September 28 . . −27 52 8.9
October 12 . . 6.6

B. A. C. 7826, 22h. 21m. 1s.

October 28 . . −39 47 20.5

B. A. C. 7829, 22h. 21m. 26s.

October 23 . . +62 41 3.2

δ^1 GRUIS, 22h. 21m. 28s.

November 19 . . −44 9 38.3

ANONYMOUS, 22h. 21m. 40s.

October 26 . . −16 19 43.2

O. ARG. S. 22177, 22h. 22m. 8s.

October 12 . . −27 49 15.5

LACAILLE 9151, 22h. 22m. 29s.

October 30 . . −27 46 14.9

37 PEGASI, 22h. 23m. 24s.

October 6 . . + 3 46 20.0
November 4 . . 21.1

WEISSE XXII, 518, 22h. 25m. 33s.

October 29 . . + 6 44 10.6

39 PEGASI, 22h. 26m. 19s.

September 28 . . +19 33 39.6

WASH. ZONES LIV, 12, 22h. 26m. 31s.

October 26 . . −28 7 18.2

WASH. ZONES LIV, 13, 22h. 27m. 15s.

October 26 . . −28 3 42.0

60 AQUARII, 22h. 27m. 20s.

November 5 . . − 2 14 31.8
11 . . 34.4

ANONYMOUS, 22h. 27m. 50s.

November 12 . . −28 14 6.1

ANONYMOUS, 22h. 28m. 29s.

October 12 . . −31 0 26.1
23 . . 26.8

O. ARG. S. 22282, 22h. 30m. 30s.

October 28 . . −22 28 12.7

O. ARG. S. 22288, 22h. 30m. 54s.

October 26 . . −28 7 5.3

LACAILLE 9195, 22h. 31m. 0s.

November 18 . . −26 19 46.5

ANONYMOUS, 22h. 31m. 36s.

November 19 . . −28 56 47.9

B. A. C. 7891, 22h. 32m. 29s.

November 11 . . −29 0 2.0

O. ARG. S. 22316, 22h. 32m. 31s.

° ′ ″
September 28 . . −29 1 21.6
November 11 . . 23.3

ANONYMOUS, 22h. 35m. 13s.

October 30 . . +53 39 53.1

LACAILLE 9221, 22h. 35m. 56s.

October 6 . . −22 10 15.9

ANONYMOUS, 22h. 36m. 32s.

November 5 . . −21 36 45.8

O. ARG. N. 24553, 22h. 37m. 6s.

October 7 . . +53 34 32.8

O. ARG. S. 22374, 22h. 37m. 20s.

October 28 . . −24 26 45.8

O. ARG. S. 22378, 22h. 37m. 32s.

October 12 . . −21 37 44.3

O. ARG. S. 22383, 22h. 38m. 16s.

October 12 . . −21 33 11.3

O. ARG. S. 22391, 22h. 38m. 34s.

October 28 . . −24 32 14.6

ANONYMOUS, 22h. 38m. 58s.

October 29 . . −21 31 32.6

LACAILLE 9246, 22h. 39m. 50s.

November 12 . . −33 21 24.2

LACAILLE 9248, 22h. 40m. 1s.

November 19 . . −34 50 51.9

λ PEGASI, 22h. 40m. 15s.

October 23 . . +22 52 56.2

τ^1 AQUARII, 22h. 40m. 48s.

September 28 . . −14 44 27.0

B. A. C. 7951, 22h. 41m. 17s.

November 18 . . − 4 54 7.9

O. ARG. N. 24689, 22h. 42m. 25s.

October 30 . . +57 51 40.9

ANONYMOUS, 22h. 43m. 17s.

November 11 . . − 6 15 13.7
12 . . 25.3

WEISSE XXII, 897, 22h. 43m. 29s.

November 11 . . − 6 17 24.8
12 . . 22.4

WEISSE XXII, 951. 22h. 46m. 26s.

October 7 . . − 6 1 26.3

WEISSE XXII, 957, 22h. 46m. 39s.

October 7 . . − 6 2 6.5

78 AQUARII, 22h. 47m. 48s.

October 6 . . − 7 53 41.2
23 . . 41.2

1 Piscium, 22h. 48m. 20s.
° ′ ″
October 29 . . + 0 22 21.5

Weisse XXII, 994, 22h. 48m. 38s.
October 28 . . −10 48 16.3

Weisse XXII, 995, 22h. 48m. 38s.
October 26 . . − 6 22 54.1

O. Arg. S. 22499, 22h. 49m. 13s.
November 19 . . −24 32 32.3

Weisse XXII, 1017, 22h. 50m. 0s.
November 18 . . −10 57 21.9

Weisse XXII, 1026, 22h. 50m. 14s.
October 12 . . + 0 11 44.7

O. Arg. S. 22508, 22h. 50m. 16s.
November 19 . . −24 31 58.1

O. Arg. S. 22517, 22h. 50m. 43s.
November 11 . . −26 51 44.2

B. A. C. 8002, 22h. 52m. 28s.
October 30 . . −30 9 31.2

2 Piscium, 22h. 52m. 48s.
October 12 . . + 0 16 11.5

Anonymous, 22h. 52m. 48s.
October 26 . . +11 30 8.9

Weisse XXII, 1087, 22h. 52m. 54s.
October 28 . . − 5 3 35.3

Weisse XXII, 1088, 22h. 52m. 55s.
October 28 . . − 5 3 36.8

O. Arg. S. 22543, 22h. 53m. 15s.
November 11 . . −26 50 42.1

O. Arg. S. 22544, 22h. 53m. 19s.
November 11 . . −26 49 44.3

Weisse XXII, 1108, 22h. 53m. 48s.
October 26 . . +11 32 37.8

Anonymous, 22h. 53m. 49s.
October 23 . . − 7 45 57.1

O. Arg. S. 22554, 22h. 53m. 57s.
October 29 . . −17 34 39.5

Anonymous, 22h. 55m. 24s.
October 12 . . − 4 32 52.8

o Andromedæ, 22h. 55m. 58s.
November 4 . . +41 37 42.8

Lacaille 9357, 22h. 56m. 35s.
November 12 . . −27 30 48.4

h^1 Aquarii, 22h. 58m. 23s.
October 6 . . − 8 23 40.5

h^2 Aquarii, 22h. 58m. 33s.
October 6 . . − 8 27 19.4

Lacaille 9369, 22h. 59m. 38s.
October 28 . . −39 35 44.2

Lacaille 9373, 22h. 59m. 52s.
° ′ ″
October 23 . . −30 44 59.2

h^4 Aquarii, 23h. 0m. 27s.
October 6 . . − 8 23 39.5

Lacaille 9385, 23h. 3m. 9s.
October 29 . . −40 44 17.2

Anonymous, 23h. 3m. 26s.
October 26 . . −20 9 61.9
November 12 . . 58.1
18 . . 58.6

58 Pegasi, 23h. 3m. 29s.
October 7 . . + 9 7 3.8
30 . . 2.8

π Cephei, 23h. 3m. 46s.
November 7 . . +74 41 6.3

Weisse XXIII, 61, 23h. 5m. 14s.
November 11 . . + 8 5 47.7

Anonymous, 23h. 6m. 16s.
November 13 . . −30 45 41.3

Weisse XXIII, 98, 23h. 7m. 0s.
November 19 . . − 7 0 18.8

Wessse XXIII, 112, 23h. 7m. 27s.
October 28 . . + 2 36 13.7

Lacaille 9414, 23h. 8m. 42s.
October 23 . . −30 33 16.7

Anonymous, 23h. 8m. 54s.
October 29 . . −39 58 36.0

Lacaille 9424, 23h. 9m. 38s.
November 12 . . −41 54 14.5

Lacaille 9432, 23h. 11m. 0s.
October 26 . . −41 31 48.9
November 11 . . 49.4

γ Sculptoris, 23h. 11m. 48s.
October 6 . . −33 14 22.6

Weisse XXIII, 222, 23h. 12m. 1s.
October 7 . . − 6 20 18.9

O. Arg. S. 22779, 23h. 14m. 28s.
October 29 . . −25 35 7.1

B. A. C. 8134, 23h. 14m. 40s.
October 23 . . − 5 22 57.3

Lalande 45758, 23h. 15m. 42s.
November 5 . . − 1 7 2.4
18 . . 3.5
19 . . 7.2

Lacaille 9461, 23h. 17m. 22s.
November 11 . . −37 54 50.7

Radcliffe 6067, 23h. 18m. 59s.
November 12 . . +54 22 22.3

Lacaille 9482, 23h. 20m. 38s.
October 7 . . −27 59 41.4

Anonymous, 23h. 21m. 8s.
October 26 . . +54 5 11.5

69 Pegasi, 23h. 21m. 13s.
° ′ ″
October 6 . . +24 27 13.0

Anonymous, 23h. 22m. 27s.
October 26 . . +54 5 57.2

11 Piscium, 23h. 22m. 47s.
October 29 . . − 2 30 25.2

12 Piscium, 23h. 22m. 50s.
November 7 . . − 1 44 61.9
13 . . 59.2
19 . . 62.7

Lacaille 9507, 23h. 24m. 48s.
November 11 . . −42 28 13.1

Lacaille 9516, 23h. 26m. 33s.
October 7 . . −32 0 24.7

O. Arg. S. 22911, 23h. 27m. 49s.
October 23 . . −17 42 55.2
November 5 . . 53.8
18 . . 57.1

B. A. C. 8214, 23h. 28m. 49s.
November 12 . . − 8 11 2.7

Lacaille 9528, 23h. 29m. 8s.
October 29 . . −31 21 52.2

Anonymous, 23h. 30m. 2s.
October 26 . . −37 31 8.9

Weisse XXIII, 609, 23h. 30m. 31s.
November 19 . . − 1 50 0.1

Lacaille 9554, 23h. 34m. 5s.
November 11 . . −38 35 14.8

Lacaille 9567, 23h. 36m. 16s.
October 29 . . −37 30 25.8

Lacaille 9576, 23h. 37m. 1s.
November 7 . . −34 8 53.9
12 . . 56.6

O. Arg. S. 23054, 23h. 41m. 35s.
October 26 . . −28 37 1.4

Groombridge 4142, 23h. 41m. 49s.
October 23 . . +63 5 44.9

B. A. C. 8274, 23h. 41m. 52s.
October 6 . . − 7 6 7.5

Weisse XXIII, 845, 23h. 42m. 2s.
October 7 . . + 0 16 59.1

Lacaille 9606, 23h. 42m. 45s.
November 5 . . −22 20 11.2
December 23 . . 7.8

21 Piscium, 23h. 42m. 48s.
October 7 . . + 0 21 15.2

108 Aquarii, 23h. 44m. 37s.
November 18 . . −19 37 52.0

Lacaille 9619, 23h. 44m. 44s.
October 26 . . −33 9 14.1
November 12 . . 15.1

22 Piscium, 23h. 45m. 19s.
November 19 . . + 2 12 27.4

Lalande 46769, 23h. 45m. 57s.
° ′ ″
October 29 . . −19 17 7.0

Anonymous, 23h. 46m. 13s.
November 9 . . +28 53 9.2

25 Piscium, 23h. 46m. 25s.
December 25 . . + 1 22 4.1

O. Arg. S. 23120, 23h. 47m. 55s.
November 11 . . −23 45 17.1

B. A. C. 8311, 23h. 48m. 8s.
October 6 . . − 0 36 43.0

O. Arg. S. 23124, 23h. 48m. 44s.
November 19 . . −18 33 10.2

O. Arg. S. 23126 23h. 49m. 4s.
November 13 . . −23 41 45.5

Weisse XXIII, 1030, 23h. 51m. 5s.
October 7 . . +10 44 57.2

Weisse XXIII, 1040, 23h. 51m. 28s.
October 7 . . +10 50 37.4

Lacaille 9670, 23h. 51m. 58s.
November 12 . . −38 56 58.4

Anonymous, 23h. 51m. 58s.
December 23 . . −30 13 27.1

B. A. C. 8351, 23h. 55m. 23s.
October 6 . . − 3 29 22.4

Schjellerup 9964, 23h. 55m. 25s.
October 26 . . − 0 18 29.[illegible]

Lacaille 9701, 23h. 56m. 28s.
October 28 . . −24 52 7.7

Lacaille 9702, 23h. 56m. 31s.
October 29 . . −25 18 47.1

Lacaille 9707, 23h. 57m. 42s.
November 6 . . −30 6 23.1

Anonymous, 23h. 58m. 12s.
November 11 . . −33 12 53.4
19 . . 53.7

Weisse XXIII, 1183, 23h. 58m. 24s.
November 7 . . − 1 13 29.5
23 . . 27.0

Weisse XXIII, 1186, 23h. 58m. 30s.
October 7 . . + 1 40 20.2

Lacaille 9714, 23h. 58m. 32s.
November 12 . . −33 11 26.[illegible]

Anonymous, 23h. 59m. 0s.
November 9 . . +57 35 45.1
December 17 . . 45.3

B. A. C. 8372, 23h. 59m. 26s.
November 13 . . −57 42 43.0
18 . . 40.4

Weisse XXIII, 1212, 23h. 59m. 52s.
October 26 . . +12 6 26.5

B. A. C. 8374, 23h. 59m. 53s.
December 25 . . +28 18 15.5

CONSTANTS FOR THE REDUCTION OF FIXED STARS.

These constants have been prepared from the Logarithms A, B, C, and D, of the American Ephemeris and Nautical Almanac for the year 1868. The epoch to which the observations are reduced by them is 1870.0. The constant 1870.0 is assumed to be January 0*d*.—.164, mean time, Washington, the moment when the Sun's mean longitude was 280°.

The notation and form of publication is similar to that published in Volume III of the Washington Observations, and the auxiliary tables used in the reduction are similar to those of that volume.

EPOCH MEAN MIDNIGHT, WASHINGTON.

Date.	Sid. T.	G.	H.		Log. *g*.	Log. *h*.	Log. *i*.		*f*.	*t*.	*p*.	☽	☽−Γ.
1868.	h.	h. m. s.	h. m. s.						s.	y.			
Mar. 1	10.68	23 14 16	7 18 16	260	1.6039	1.2770	+ 0.8886	24	+ 6.033	+ 1.833	. .	. .	. .
2	10.75	23 14 19	7 13 56	256	1.6036	1.2766	0.8910	22	6.027	1.830	. .	. .	. .
3	10.81	23 14 21	7 9 40	260	1.6032	1.2762	0.8932	22	6.022	1.827	. .	. .	. .
4	10.88	23 14 24	7 5 20	260	1.6028	1.2759	0.8954	19	6.016	1.824	. .	. .	. .
5	10.95	23 14 26	7 1 00	256	1.6024	1.2755	0.8973	19	6.011	1.822	. .	. .	. .
6	11.01	23 14 28	6 56 44	260	1.6020	1.2752	0.8992	16	6.006	1.819	. .	. .	. .
7	11.08	23 14 30	6 52 24	260	1.6016	1.2749	0.9008	16	6.001	1.816	. .	. .	. .
8	11.15	23 14 31	6 48 4	260	1.6012	1.2746	0.9024	14	5.996	1.813	. .	. .	. .
9	11.21	23 14 33	6 43 44	256	1.6008	1.2744	0.9038	13	5.991	1.811	. .	. .	. .
10	11.28	23 14 34	6 39 28	260	1.6004	1.2741	0.9051	11	5.986	1.808	. .	. .	. .
11	11.34	23 14 35	6 35 8	260	1.6000	1.2739	0.9062	10	5.981	1.805	. .	. .	. .
12	11.41	23 14 36	6 30 48	260	1.5996	1.2738	0.9072	9	5.977	1.802	. .	. .	. .
13	11.47	23 14 36	6 26 28	254	1.5993	1.2736	0.9081	7	5.972	1.800	. .	. .	. .
14	11.54	23 14 37	6 22 4	256	1.5990	1.2735	0.9088	6	5.967	1.797	. .	. .	. .
15	11.60	23 14 38	6 17 48	260	1.5987	1.2734	0.9094	5	5.962	1.794	. .	. .	. .
16	11.67	23 14 38	6 13 28	260	1.5984	1.2733	0.9099	3	5.957	1.792	. .	. .	. .
17	11.73	23 14 37	6 9 8	260	1.5980	1.2732	0.9102	2	5.952	1.789	. .	. .	. .
18	11.80	23 14 36	6 4 48	260	1.5977	1.2732	0.9104	+1	5.947	1.786	. .	. .	. .
19	11.86	23 14 36	6 0 28	260	1.5973	1.2731	0.9105	0	5.942	1.783	. .	. .	. .
20	11.93	23 14 35	5 56 8	260	1.5970	1.2732	0.9105	−2	5.937	1.781	. .	. .	. .
21	12.00	23 14 34	5 51 48	260	1.5966	1.2732	0.9103	3	5.932	1.778	. .	. .	. .
22	12.07	23 14 33	5 47 28	256	1.5962	1.2732	0.9100	5	5.927	1.775	. .	. .	. .
23	12.13	23 14 32	5 43 12	260	1.5959	1.2733	0.9095	5	5.922	1.772	. .	. .	. .
24	12.19	23 14 30	5 38 52	260	1.5955	1.2734	0.9090	7	5.917	1.770	. .	. .	. .
25	12.26	23 14 28	5 34 32	256	1.5952	1.2735	0.9083	9	5.912	1.767	. .	. .	. .
26	12.32	23 14 26	5 30 16	260	1.5949	1.2737	0.9074	9	5.907	1.764	. .	. .	. .
27	12.39	23 14 23	5 25 56	256	1.5945	1.2739	0.9065	11	5.902	1.761	. .	. .	. .
28	12.46	23 14 20	5 21 40	256	1.5942	1.2741	0.9054	13	5.897	1.759	. .	. .	. .
29	12.52	23 14 17	5 17 24	256	1.5938	1.2743	0.9041	13	5.892	1.756	. .	. .	. .
30	12.59	23 14 14	5 13 8	260	1.5935	1.2745	0.9028	15	5.887	1.753	. .	. .	. .
31	12.65	23 14 11	5 8 48	256	1.5932	1.2748	0.9013	16	5.883	1.750	. .	. .	. .
Apr. 1	12.72	23 14 7	5 4 32	256	1.5929	1.2751	0.8997	18	5.878	1.748	. .	. .	. .
2	12.78	23 14 3	5 0 16	252	1.5925	1.2754	0.8979	19	5.872	1.745	. .	. .	. .
3	12.85	23 13 59	4 56 4	252	1.5921	1.2758	0.8960	20	5.877	1.742	. .	. .	. .
4	12.91	23 13 55	4 51 52	256	1.5917	1.2761	0.8940	22	5.871	1.740	. .	. .	. .
5	12.98	23 13 50	4 47 36	252	1.5913	1.2765	0.8918	23	5.856	1.737	. .	. .	. .
6	13.05	23 13 45	4 43 24	252	1.5910	1.2769	0.8895	24	5.850	1.734	. .	. .	. .
7	13.11	23 13 40	4 39 12	252	1.5906	1.2773	0.8871	26	5.845	1.731	. .	. .	. .
8	13.18	23 13 35	4 35 0	252	1.5902	1.2777	0.8845	27	5.839	1.728	. .	. .	. .
9	13.24	23 13 30	4 30 48	252	1.5898	1.2782	0.8818	29	5.834	1.726	. .	. .	. .
10	13.31	23 13 25	4 26 36	248	1.5894	1.2786	0.8789	30	5.829	1.723	. .	. .	. .
11	13.38	23 13 19	4 22 28	248	1.5891	1.2791	0.8759	31	5.823	1.720	. .	. .	. .
12	13.44	23 13 13	4 18 20	248	1.5887	1.2796	0.8728	33	5.817	1.718	. .	. .	. .
13	13.51	23 13 7	4 14 12	248	1.5884	1.2801	0.8695	35	5.812	1.715	. .	. .	. .
14	13.57	23 13 1	4 10 4	248	1.5880	1.2806	0.8660	36	5.807	1.712	. .	. .	. .
15	13.64	23 12 55	4 5 56	244	1.5876	1.2811	0.8624	38	5.801	1.709	. .	. .	. .
16	13.71	23 12 49	4 1 52	244	1.5872	1.2817	0.8586	39	5.795	1.707	. .	. .	. .
17	13.77	23 12 42	3 57 48	244	1.5868	1.2822	0.8547	41	5.788	1.704	. .	. .	. .
18	13.84	23 12 35	3 53 44	244	1.5864	1.2828	0.8506	43	5.782	1.701	. .	. .	. .
19	13.90	23 12 28	3 49 40	244	1.5860	1.2833	0.8463	44	5.776	1.698	. .	. .	. .
20	13.97	23 12 20	3 45 36	244	1.5856	1.2839	0.8419	46	5.770	1.696	. .	. .	. .
21	14.04	23 12 13	3 41 32	240	1.5850	1.2845	0.8373	47	5.763	1.693	. .	. .	. .
22	14.10	23 12 5	3 37 32	240	1.5846	1.2851	0.8326	50	5.757	1.690	. .	. .	. .
23	14.17	23 11 57	3 33 32	236	1.5841	1.2857	0.8276	51	5.751	1.688	. .	. .	. .
24	14.23	23 11 49	3 29 36	240	1.5837	1.2863	0.8225	53	5.745	1.685	. .	. .	. .
25	14.30	23 11 41	3 25 36	236	1.5833	1.2870	0.8172	55	5.739	1.682	. .	. .	. .
26	14.36	23 11 33	3 21 40	236	1.5829	1.2876	0.8117	57	5.732	1.679	. .	. .	. .
27	14.43	23 11 25	3 17 44	234	1.5824	1.2882	0.8060	59	5.725	1.676	. .	. .	. .
28	14.49	23 11 17	3 13 40	236	1.5819	1.2889	0 8001	60	5.718	1.674	. .	. .	. .
29	14.56	23 11 8	3 9 44	232	1.5814	1.2895	0.7941	63	5.711	1.671	. .	. .	. .
30	14.63	23 10 59	3 5 52		1.5809	1·2901	+ 0.7878	65	+ 5.703	+ 1.668	. .	. .	. .

EPOCH MEAN MIDNIGHT, WASHINGTON.

Date.	Sid. T.	G.	H.		Log. *g*.	Log. *h*.	Log. *i*.		*f*.	*i*.	*p*.	☽	☽—Γ'.
1868.	h.	h. m. s.	h. m. s.						s.	y.			
May 1	14.69	23 10 51	3 1 56	232	1.5805	1.2908	+ 0.7813	68	+ 5.696	+ 1.666	. .	. .	. .
2	14.76	23 10 42	2 58 4	232	1.5800	1.2914	0.7745	70	5.688	1.663	. .	. .	. .
3	14.82	23 10 34	2 54 12	232	1.5795	1.2920	0.7675	71	5.681	1.660	. .	. .	. .
4	14.89	23 10 25	2 50 20	232	1.5790	1.2926	0.7604	75	5.674	1.657	. .	.	. .
5	14.95	23 10 16	2 46 28	228	1.5785	1.2932	0.7529	77	5.667	1.655	. .	. .	. .
6	15.02	23 10 7	2 42 40	232	1.5780	1.2939	0.7452	79	5.660	1.652	. .	. .	. .
7	15.09	23 9 58	2 38 48	228	1.5775	1.2945	0.7373	83	5.653	1.649	. .	. .	. .
8	15.15	23 9 49	2 35 00	228	1.5769	1.2951	0.7290	85	5.645	1.646	. .	. .	. .
9	15.22	23 9 40	2 31 12	228	1.5764	1.2957	0.7205	89	5.637	1.644	. .	. .	. .
10	15.28	23 9 31	2 27 24	227	1.5759	1.2963	0.7116	90	5.629	1.641	. .	. .	. .
11	15.35	23 9 22	2 23 40	228	1.5753	1.2969	0.7026	94	5.621	1.638	. .	. .	. .
12	15.41	23 9 13	2 19 52	224	1.5748	1.2975	0.6932	99	5.613	1.636	. .	. .	. .
13	15.48	23 9 4	2 16 8	224	1.5742	1.2981	0.6833	101	5.605	1.633	. .	. .	. .
14	15.54	23 8 55	2 12 24	224	1.5736	1.2987	0.6732	104	5.597	1.630	. .	. .	. .
15	15.61	23 8 46	2 8 40	224	1.5730	1.2992	0.6628	108	5.589	1.627	. .	. .	. .
16	15.68	23 8 37	2 4 56	220	1.5724	1.2998	0.6520	112	5.580	1.624	. .	. .	. .
17	15.74	23 8 28	2 1 16	224	1.5718	1.3004	0.6408	117	5.572	1.622	. .	. .	. .
18	15.81	23 8 19	1 57 32	220	1.5712	1.3009	0.6291	121	5.564	1.619	. .	. .	. .
19	15.87	23 8 10	1 53 52	224	1.5706	1.3014	0.6170	126	5.556	1.616	. .	. .	. .
20	15.94	23 8 1	1 50 8	220	1.5700	1.3020	0.6044	131	5.546	1.614	. .	. .	. .
21	16.01	23 7 52	1 46 28	216	1.5694	1.3025	0.5913	136	5.536	1.611	. .	. .	. .
22	16.07	23 7 43	1 42 52	220	1.5688	1.3030	0.5777	142	5.527	1.608	. .	. .	. .
23	16.14	23 7 34	1 39 12	220	1.5681	1.3035	0.5635	147	5.518	1.605	. .	. .	. .
24	16.20	23 7 25	1 35 32	216	1.5675	1.3040	0.5488	154	5.509	1.603	. .	. .	. .
25	16.27	23 7 16	1 31 56	216	1.5668	1.3044	0.5334	160	5.500	1.600	. .	. .	. .
26	16.34	23 7 8	1 28 20	216	1.5661	1.3049	0.5174	169	5.490	1.597	. .	. .	. .
27	16.40	23 6 59	1 24 44	216	1.5655	1.3053	0.5005	176	5.481	1.594	. .	. .	. .
28	16.47	23 6 51	1 21 8	216	1.5648	1.3057	0.4829	185	5.472	1.592	. .	. .	. .
29	16.53	23 6 43	1 17 32	216	1.5641	1.3061	0.4644	194	5.463	1.489	. .	. .	. .
30	16.60	23 6 35	1 13 56	216	1.5634	1.3065	0.4450	204	5.454	1.586	. .	. .	. .
31	16.66	23 6 27	1 10 20	212	1.5627	1.3069	0.4246	216	5.444	1.583	. .	. .	. .
June 1	16.73	23 6 19	1 6 48	216	1.5620	1.3073	0.4030	229	5.435	1.581	. .	. .	. .
2	16.79	23 6 12	1 3 12	212	1.5613	1.3076	0.3801	241	5.425	1.578	. .	. .	. .
3	16.86	23 6 4	0 59 40	212	1.5606	1.3079	0.3560	258	5.415	1.575	. .	. .	. .
4	16.92	23 5 56	0 56 8	216	1.5599	1.3082	0.3302	276	5.405	1.572	. .	. .	. .
5	16.99	23 5 49	0 52 32	212	1.5592	1.3085	0.3026	295	5.396	1.570	. .	. .	. .
6	17.06	23 5 42	0 49 0	212	1.5585	1.3088	0.2731	318	5.386	1.567	. .	. .	. .
7	17.12	23 5 35	0 45 28	212	1.5577	1.3090	0.2413	345	5.376	1.564	. .	. .	. .
8	17.19	23 5 28	0 41 56	212	1.5570	1.3093	0.2068	375	5.367	1.562	. .	. .	. .
9	17.25	23 5 21	0 38 24	208	1.5562	1.3095	0.1693	412	5.357	1.559	. .	. .	. .
10	17.32	23 5 15	0 34 56	212	1.5554	1.3097	0.1281	457	5.347	1.556	. .	. .	. .
11	17.39	23 5 9	0 31 24	212	1.5547	1.3098	0.0824	513	5.337	1.553	. .	. .	. .
12	17.45	23 5 3	0 27 52	212	1.5539	1.3100	0.0311	578	5.327	1.551	. .	. .	. .
13	17.52	23 4 57	0 24 20	208	1.5532	1.3101	9.9733	673	5.317	1.548	. .	. .	. .
14	17.58	23 4 51	0 20 52	212	1.5524	1.3103	9.9060	794	5.308	1.545	. .	. .	. .
15	17.65	23 4 46	0 17 20	208	1.5517	1.3104	9.8266	975	5.298	1.542	. .	. .	. .
16	17.72	23 4 41	0 13 52	212	1.5509	1.3105	9.7291		5.288	1.540	. .	. .	. .
17	17.78	23 4 36	0 10 20	208	1.5501	1.3105	9.6026		5.278	1.537	. .	. .	. .
18	17.85	23 4 31	0 6 52	212	1.5493	1.3106	9.4234		5.268	1.534	. .	. .	. .
19	17.91	23 4 26	0 3 20	208	1.5486	1.3106	+ 9.1116		5.258	1.531	. .	. .	. .
20	17.98	23 4 21	23 59 52	212	1.5478	1.3106	− 7.7835		5.248	1.529	. .	. .	. .
21	18.05	23 4 17	23 56 20	208	1.5470	1.3106	9.1493		5.239	1.526	. .	. .	. .
22	18.11	23 4 13	23 52 52	212	1.5462	1.3105	9.4422		5.229	1.523	. .	. .	. .
23	18.18	23 4 9	23 49 20	208	1.5454	1.3105	9.6151		5.219	1.520	. .	. .	. .
24	18.24	23 4 5	23 45 52	212	1.5446	1.3104	9.7381	957	5.209	1.518	. .	. .	. .
25	18.31	23 4 2	23 42 20	208	1.5438	1.3103	9.8338	784	5.199	1.515	. .	. .	. .
26	18.37	23 3 59	23 38 52	212	1.5430	1.3102	9.9122	662	5.189	1.512	. .	. .	. .
27	18.44	23 3 56	23 35 20	212	1.5422	1.3101	9.9784	576	5.179	1.510	. .	. .	. .
28	18.50	23 3 53	23 31 48	208	1.5414	1.3100	0.0360	504	5.169	1.507	. .	. .	. .
29	18.57	23 3 50	23 28 20	212	1.5406	1.3098	0.0864	451	5.159	1.504	. .	. .	. .
30	18.64	23 3 48	23 24 48		1.5397	1.3097	− 0.1315		+ 5.149	+ 1.501	. .	. .	. .

EPOCH MEAN MIDNIGHT, WASHINGTON.

Date.	Sid. T.	G.	H.		Log. *g*.	Log. *h*.	Log. *i*.		*f*.	*t*.	*p*.	☽	☽−l
1868.	h.	h. m. s.	h. m. s.						s.	y.			
July 1	18.70	23 3 46	23 21 20	212	1.5389	1.3095	− 0.1723	373	+ 5.138	+ 1.498	. .	. .	. .
2	18.77	23 3 45	23 17 48	212	1.5381	1.3093	0.2096	341	5.128	1.496	. .	. .	. .
3	18.83	23 3 44	23 14 16	212	1.5373	1.3089	0.2437	315	5.119	1.493	. .	. .	. .
4	18.89	23 3 43	23 10 44	212	1.5365	1.3087	0.2752	293	5.109	1.490	. .	. .	. .
5	18.96	23 3 42	23 7 12	212	1.5357	1.3085	0.3045	272	5.100	1.488	. .	. .	. .
6	19.03	23 3 40	23 3 40	212	1.5348	1.3082	0.3317	256	5.090	1.485	. .	. .	. .
7	19.09	23 3 40	23 0 8	212	1.5340	1.3079	0.3573	241	5.081	1.482	. .	. .	. .
8	19.16	23 3 39	22 56 36	212	1.5332	1.3076	0.3814	227	5.071	1.479	. .	. .	. .
9	19.22	23 3 38	22 53 4	216	1.5323	1.3073	0.4041	214	5.061	1.477	. .	. .	. .
10	19.29	23 3 38	22 49 28	212	1.5315	1.3069	0.4255	204	5.052	1.474	. .	. .	. .
11	19.36	23 3 38	22 45 56	216	1.5306	1.3065	0.4459	193	5.042	1.471	. .	. .	. .
12	19.42	23 3 39	22 42 20	212	1.5298	1.3061	0.4652	183	5.032	1.468	. .	. .	. .
13	19.49	23 3 40	22 38 48	216	1.5290	1.3057	0.4835	176	5.023	1.466	. .	. .	. .
14	19.55	23 3 41	22 35 12	216	1.5282	1.3053	0.5011	167	5.014	1.463	. .	. .	. .
15	19.62	23 3 42	22 31 36	216	1.5274	1.3049	0.5178	159	5.005	1.460	. .	. .	. .
16	19.69	23 3 43	22 28 0	216	1.5266	1.3044	0.5337	153	4.996	1.458	. .	. .	. .
17	19.75	23 3 45	22 24 24	216	1.5258	1.3040	0.5490	146	4.987	1.455	. .	. .	. .
18	19.82	23 3 47	22 20 48	220	1.5250	1.3035	0.5636	142	4.978	1.452	. .	. .	. .
19	19.88	23 3 49	22 17 8	216	1.5242	1.3030	0.5778	135	4.969	1.449	. .	. .	. .
20	19.95	23 3 51	22 13 32	220	1.5234	1.3025	0.5913	129	4.960	1.446	. .	. .	. .
21	20.02	23 3 53	22 9 52	220	1.5226	1.3020	0.6042	126	4.951	1.444	. .	. .	. .
22	20.08	23 3 55	22 6 12	216	1.5218	1.3015	0.6168	120	4.942	1.441	. .	. .	. .
23	20.15	23 3 58	22 2 36	220	1.5210	1.3010	0.6288	115	4.934	1.438	. .	. .	. .
24	20.21	23 4 1	21 58 56	224	1.5202	1.3004	0.6403	113	4.925	1.436	. .	. .	. .
25	20.28	23 4 4	21 55 12	220	1.5194	1.2999	0.6516	108	4.917	1.433	. .	. .	. .
26	20.34	23 4 7	21 51 32	224	1.5187	1.2993	0.6624	103	4.908	1.430	. .	. .	. .
27	20.41	23 4 10	21 47 48	224	1.5180	1.2987	0.6727	102	4.899	1.427	. .	. .	. .
28	20.47	23 4 14	21 44 4	220	1.5172	1.2982	0.6829	96	4.891	1.425	. .	. .	. .
29	20.54	23 4 18	21 40 24	224	1.5165	1.2976	0.6925	94	4.883	1.422	. .	. .	. .
30	20.60	23 4 22	21 36 40	224	1.5157	1.2970	0.7019	91	4.875	1.419	. .	. .	. .
31	20.67	23 4 26	21 32 56	228	1.5150	1.2964	0.7110	88	4.867	1.416	. .	. .	. .
Aug. 1	20.74	23 4 30	21 29 8	224	1.5142	1.2959	0.7198	84	4.859	1.414	. .	. .	. .
2	20.80	23 4 34	21 25 24	228	1.5135	1.2952	0.7282	82	4.851	1.411	. .	. .	. .
3	20.87	23 4 38	21 21 36	228	1.5127	1.2945	0.7364	80	4.843	1.408	. .	. .	. .
4	20.93	23 4 42	21 17 48	228	1.5120	1.2940	0.7444	76	4.835	1.406	. .	. .	. .
5	21.00	23 4 47	21 14 00	228	1.5113	1.2934	0.7520	74	4.828	1.403	. .	. .	. .
6	21.07	23 4 51	21 10 12	228	1.5106	1.2927	0.7594	72	4.820	1.400	. .	. .	. .
7	21.13	23 4 56	21 6 24	232	1.5099	1.2921	0.7666	69	4.813	1.397	. .	. .	. .
8	21.20	23 5 1	21 2 32	232	1.5092	1.2915	0.7735	67	4.806	1.394	. .	. .	. .
9	21.26	23 5 6	20 58 40	232	1.5085	1.2908	0.7802	65	4.799	1.392	. .	. .	. .
10	21.33	23 5 11	20 54 48	232	1.5078	1.2902	0.7867	63	4.792	1.389	. .	. .	. .
11	21.40	23 5 16	20 50 56	232	1.5071	1.2896	0.7930	60	4.785	1.386	. .	. .	. .
12	21.46	23 5 21	20 47 4	232	1.5065	1.2890	0.7990	59	4.778	1.384	. .	. .	. .
13	21.53	23 5 26	20 43 12	236	1.5059	1.2884	0.8049	57	4.771	1.381	. .	. .	. .
14	21.59	23 5 31	20 39 16	236	1.5052	1.2877	0.8106	54	4.764	1.378	. .	. .	. .
15	21.66	23 5 36	20 35 20	236	1.5046	1.2871	0.8160	53	4.758	1.375	. .	. .	. .
16	21.72	23 5 41	20 31 24	236	1.5040	1.2865	0.8213	51	4.751	1.373	. .	. .	. .
17	21.79	23 5 46	20 27 28	240	1.5033	1.2859	0.8264	50	4.745	1.370	. .	. .	. .
18	21.85	23 5 51	20 23 28	240	1.5027	1.2853	0.8314	47	4.738	1.367	. .	. .	. .
19	21.92	23 5 56	20 19 28	246	1.5020	1.2847	0.8361	46	4.732	1.364	. .	. .	. .
20	21.98	23 6 0	20 15 32	244	1.5013	1.2841	0.8407	44	4.725	1.362	. .	. .	. .
21	22.05	23 6 5	20 11 28	240	1.5007	1.2835	0.8451	43	4.719	1.359	. .	. .	. .
22	22.12	23 6 9	20 7 28	240	1.5001	1.2830	0.8494	41	4.712	1.356	. .	. .	. .
23	22.18	23 6 14	20 3 28	244	1.4995	1.2824	0.8535	39	4.706	1.353	. .	. .	. .
24	22.25	23 6 19	19 59 24	240	1.4989	1.2818	0.8574	38	4.700	1.351	. .	. .	. .
25	22.31	23 6 23	19 55 24	244	1.4983	1.2813	0.8612	36	4.694	1.348	. .	. .	. .
26	22.38	23 6 28	19 51 20	244	1.4977	1.2808	0.8648	35	4.688	1.345	. .	. .	. .
27	22.44	23 6 32	19 47 16	248	1.4971	1.2802	0.8683	33	4.682	1.342	. .	. .	. .
28	22.51	23 6 36	19 43 8	244	1.4965	1.2797	0.8716	32	4.676	1.340	. .	. .	. .
29	22.57	23 6 40	19 39 4	248	1.4960	1.2793	0.8748	30	4.670	1.337	. .	. .	. .
30	22.64	23 6 44	19 34 56	248	1.4954	1.2788	0.8778	29	4.664	1.334	. .	. .	. .
31	22.71	23 6 48	19 30 48		1.4949	1.2783	− 0.8807		+ 4.658	+ 1.332	. .	. .	. .

EPOCH MEAN MIDNIGHT, WASHINGTON.

Date.	Sid. T.	G.	H.		Log. *g*.	Log. *h*.	Log. *i*.		*f*.	*t*.	*p*.	☽	☽−Γ'.
1868.	h.	h. m. s.	h. m. s.						s.	y.		°	°
Sept. 1	22.78	23 6 52	19 26 40	248	1.4944	1.2779	−0.8834	26	+4.654	+1.329	. .	. .	. .
2	22.84	23 6 56	19 22 32	248	1.4939	1.2775	0.8860	25	4.649	1.326	. .	. .	. .
3	22.91	23 6 59	19 18 24	248	1.4933	1.2770	0.8885	24	4.643	1.323	. .	. .	. .
4	22.97	23 7 2	19 14 16	252	1.4928	1.2767	0.8909	21	4.638	1.321	. .	. .	. .
5	23.04	23 7 5	19 10 4	252	1.4923	1.2763	0.8930	21	4.632	1.318	. .	. .	. .
6	23.10	23 7 8	19 5 52	252	1.4918	1.2759	0.8951	19	4.627	1.315	. .	. .	. .
7	23.17	23 7 10	19 51 40	252	1.4912	1.2756	0.8970	18	4.621	1.312	. .	. .	. .
8	23.23	23 7 12	18 57 78	252	1.4907	1.2753	0.8998	17	4.616	1.310	. .	. .	. .
9	23.30	23 7 14	18 53 26	252	1.4902	1.2750	0.9005	15	4.611	1.307	. .	. .	. .
10	23.36	23 7 16	18 49 4	252	1.4897	1.2747	0.9020	14	4.605	1.304	. .	. .	. .
11	23.43	23 7 18	18 44 52	256	1.4892	1.2744	0.9034	13	4.600	1.301	. .	. .	. .
12	23.49	23 7 19	18 40 36	252	1.4887	1.2742	0.9047	12	4.595	1.299	. .	. .	. .
13	23.56	23 7 20	18 36 24	252	1.4882	1.2740	0.9059	10	4.590	1.296	. .	. .	. .
14	23.62	23 7 21	18 32 12	256	1.4877	1.2738	0.9069	9	4.585	1.293	. .	. .	. .
15	23.69	23 7 22	18 27 56	256	1.4872	1.2736	0.9078	8	4.580	1.290	. .	. .	. .
16	23.76	23 7 23	18 23 40	256	1.4868	1.2735	0.9086	6	4.575	1.288	. .	. .	. .
17	23.83	23 7 23	18 19 24	256	1.4863	1.2734	0.9092	5	4.570	1.285	. .	. .	. .
18	23.89	23 7 23	18 15 8	252	1.4858	1.2733	0.9097	4	4.565	1.282	. .	. .	. .
19	23.96	23 7 23	18 10 56	256	1.4853	1.2732	0.9101	3	4.560	1.280	. .	. .	. .
20	0.02	23 7 23	18 6 40	256	1.4849	1.2732	0.9104	+1	4.555	1.277	. .	. .	. .
21	0.09	23 7 22	18 2 24	256	1.4844	1.2731	0.9105	0	4.551	1.274	. .	. .	. .
22	0.16	23 7 21	17 58 8	260	1.4840	1.2731	0.9105	−1	4.546	1.271	. .	. .	. .
23	0.22	23 7 20	17 53 48	256	1.4835	1.2721	0.9104	2	4.541	1.269	. .	. .	. .
24	0.29	23 7 18	17 49 32	256	1.4831	1.2732	0.9102	4	4.536	1.266	. .	. .	. .
25	0.35	23 7 16	17 45 16	256	1.4826	1.2733	0.9098	5	4.531	1.263	. .	. .	. .
26	0.42	23 7 14	17 41 0	256	1.4822	1.2734	0.9093	7	4.526	1.260	. .	. .	. .
27	0.48	23 7 11	17 36 44	260	1.4817	1.2735	0.9086	7	4.521	1.258	. .	. .	. .
28	0.55	23 7 8	17 32 24	256	1.4813	1.2737	0.9079	9	4.516	1.255	. .	. .	. .
29	0.61	23 7 5	17 28 8	256	1.4808	1.2738	0.9070	10	4.511	1.252	. .	. .	. .
30	0.68	23 7 2	17 23 52	256	1.4803	1.2740	0.9060	12	4.506	1.249	. .	. .	. .
Oct. 1	0.75	23 6 58	17 19 36	256	1.4798	1.2742	0.9048	13	4.501	1.247	. .	. .	. .
2	0.81	23 6 54	17 15 20	260	1.4794	1.2744	0.9035	14	4.496	1.244	. .	. .	. .
3	0.88	23 6 50	17 11 0	252	1.4789	1.2747	0.9021	16	4.491	1.241	. .	. .	. .
4	0.94	23 6 45	17 6 48	256	1.4784	1.2749	0.9005	17	4.486	1.238	. .	. .	. .
5	1.01	23 6 40	17 2 32	256	1.4780	1.2752	0.8988	18	4.481	1.236	. .	. .	. .
6	1.08	23 6 35	16 58 16	256	1.4775	1.2756	0.8970	20	4.475	1.233	. .	. .	. .
7	1.14	23 6 29	16 54 0	256	1.4770	1.2759	0.8950	21	4.470	1.230	. .	. .	. .
8	1.21	23 6 23	16 49 44	256	1.4765	1.2762	0.8929	22	4.464	1.227	. .	. .	. .
9	1.27	23 6 17	16 45 28	252	1.4760	1.2766	0.8907	24	4.458	1.225	. .	. .	. .
10	1.34	23 6 11	16 41 16	256	1.4755	1.2771	0.8883	26	4.453	1.222	. .	. .	. .
11	1.40	23 6 4	16 37 0	256	1.4750	1.2775	0.8857	27	4.447	1.219	. .	. .	. .
12	1.47	23 5 57	16 32 44	252	1.4745	1.2779	0.8830	28	4.442	1.216	. .	. .	. .
13	1.53	23 5 50	16 28 32	252	1.4741	1.2784	0.8802	30	4.436	1.214	. .	. .	. .
14	1.60	23 5 42	16 24 20	252	1.4736	1.2789	0.8772	31	4.431	1.211	. .	. .	. .
15	1.66	23 5 34	16 20 8	252	1.4731	1.2794	0.8741	33	4.425	1.208	. .	. .	. .
16	1.73	23 5 26	16 15 56	252	1.4726	1.2799	0.8708	34	4.419	1.206	. .	. .	. .
17	1.79	23 5 17	16 11 44	252	1.4721	1.2804	0.8674	36	4.413	1.203	. .	. .	. .
18	1.86	23 5 8	16 7 32	252	1.4716	1.2809	0.8638	38	4.407	1.200	. .	. .	. .
19	1.92	23 4 59	16 3 20	252	1.4711	1.2815	0.8600	40	4.401	1.197	. .	. .	. .
20	1.99	23 4 50	15 59 8	248	1.4705	1.2821	0.8560	41	4.395	1.195	. .	. .	. .
21	2.06	23 4 41	15 55 0	248	1.4699	1.2826	0.8519	43	4.388	1.192	. .	. .	. .
22	2.13	23 4 31	15 50 52	248	1.4694	1.2832	0.8476	45	4.382	1.189	. .	. .	. .
23	2.19	23 4 21	15 46 44	252	1.4688	1.2838	0.8431	47	4.375	1.186	. .	. .	. .
24	2.26	23 4 11	15 42 32	248	1.4682	1.2843	0.8384	48	4.369	1.184	. .	. .	. .
25	2.32	23 4 1	15 38 24	244	1.4676	1.2850	0.8336	50	4.363	1.181	. .	. .	. .
26	2.39	23 3 51	15 34 20	248	1.4671	1.2856	0.8286	52	4.356	1.178	. .	. .	. .
27	2.45	23 3 40	15 30 12	244	1.4665	1.2862	0.8234	54	4.349	1.176	. .	. .	. .
28	2.52	23 3 29	15 26 8	248	1.4659	1.2868	0.8180	57	4.342	1.173	. .	. .	. .
29	2.58	23 3 18	15 22 0	244	1.4653	1.2875	0.8123	58	4.335	1.170	. .	. .	. .
30	2.65	23 3 7	15 17 56	244	1.4647	1.2881	0.8065	61	4.328	1.167	. .	. .	. .
31	2.72	23 2 55	15 13 52		1.4641	1.2888	−0.8004		+4.321	+1.164	. .	. .	. .

EPOCH MEAN MIDNIGHT, WASHINGTON.

Date.	Sid. T.	G.	H.		Log. *g*.	Log. *h*.	Log. *i*.		*f*.	*t*.	*p*.	☽	☽−Γ.
1868.	h.	h. m. s.	h. m. s.						s.	y.			
Nov. 1	2.78	23 2 43	15 9 48	244	1.4633	1.2894	− 0.7941	65	+ 4.314	+ 1.162	. .	. .	. .
2	2.85	23 2 31	15 5 44	240	1.4627	1 2901	0.7867	67	4.307	1.159	. .	. .	. .
3	2.91	23 2 19	15 1 44	244	1.4620	1.2908	0.7809	70	4.300	1.156	. .	. .	. .
4	2.98	23 2 7	14 57 40	240	1.4614	1.2914	0.7739	73	4.292	1.154	. .	. .	. .
5	3.04	23 1 55	14 53 40	240	1.4608	1.2921	0.7666	75	4.285	1.151	. .	. .	. .
6	3.11	23 1 42	14 49 40	240	1.4601	1.2928	0.7591	78	4.277	1.148	. .	. .	. .
7	3 17	23 1 30	14 45 40	240	1.4594	1.2934	0.7513	81	4.269	1.145	. .	. .	. .
8	3.24	23 1 17	14 41 40	240	1.4587	1.2941	0.7432	83	4.261	1.143	. .	. .	. .
9	3.31	23 1 4	14 37 40	236	1.4580	1.2947	0.7349	87	4.253	1.140	. .	. .	. .
10	3.37	23 0 52	14 33 44	236	1.4573	1.2953	0.7262	89	4.245	1.137	. .	. .	. .
11	3.44	23 0 39	14 29 48	240	1.4566	1.2960	0.7173	93	4.237	1.134	. .	. .	. .
12	3.51	23 0 26	14 25 48	236	1.4559	1.2966	0.7080	98	4.229	1.132	. .	. .	. .
13	3.57	23 0 13	14 21 52	236	1.4651	1.2973	0.6982	100	4.220	1.129	. .	. .	. .
14	3.63	23 0 0	14 17 56	236	1.4543	1.2979	0.6882	104	4.212	1.126	. .	. .	. .
15	3.70	22 59 47	14 14 0	232	1.4535	1.2985	0.6778	107	4.204	1.124	. .	. .	. .
16	3.77	22 59 33	14 10 8	236	1.4527	1.2991	0.6671	113	4.195	1.121	. .	. .	. .
17	3.83	22 59 20	14 6 12	232	1.4519	1.2997	0.6558	117	4.186	1.118	. .	. .	. .
18	3.90	22 59 7	14 2 20	232	1.4511	1.3002	0.6441	120	4.177	1.115	. .	. .	. .
19	3.96	22 58 53	13 58 28	232	1.4503	1.3008	0.6321	127	4.168	1.112	. .	. .	. .
20	4.03	22 58 40	13 54 36	232	1.4495	1.3014	0.6194	131	4.159	1.110	. .	. .	. .
21	4.10	22 58 27	13 50 44	232	1.4486	1.3019	0.6063	137	4.150	1.107	. .	. .	. .
22	4.16	22 58 14	13 46 52	232	1.4478	1.3025	0.5926	142	4.141	1.104	. .	. .	. .
23	4.23	22 58 1	13 43 0	232	1.4469	1.3030	0.5784	150	4.132	1.102	. .	. .	. .
24	4.29	22 57 48	13 39 8	228	1.4461	1.3035	0.5634	155	4.122	1.099	. .	. .	. .
25	4.36	22 57 35	13 35 20	232	1.4452	1.3040	0.5479	164	4.113	1.096	. .	. .	. .
26	4.43	22 57 22	13 31 28	228	1.4443	1.3045	0.5315	171	4.103	1.093	. .	. .	. .
27	4.49	22 57 9	13 27 40	228	1.4434	1.3050	0.5144	179	4.094	1.091	. .	. .	. .
28	4.56	22 56 57	13 23 52	228	1.4425	1.3054	0.4965	189	4.084	1.088	. .	. .	. .
29	4.62	22 56 45	13 20 4	228	1.4416	1.3059	0.4776	199	4.074	1.085	. .	. .	. .
30	4.69	22 56 32	13 16 16	228	1.4407	1.3063	0.4577	210	4.064	1.082	. .	. .	. .
Dec. 1	4.76	22 56 20	13 12 28	228	1.4397	1.3067	0.4367	222	4.054	1.080	. .	. .	. .
2	4.82	22 56 8	13 8 40	228	1.4388	1.3071	0.4145	234	4.044	1.077	. .	. .	. .
3	4.89	22 55 57	13 4 52	224	1.4378	1.3074	0.3911	251	4.034	1.074	. .	. .	. .
4	4.95	22 55 45	13 1 8	228	1.4368	1.3078	0.3660	267	4.024	1.071	. .	. .	. .
5	5.02	22 55 34	12 57 20	224	1.4358	1.3081	0.3393	287	4.014	1.069	. .	. .	. .
6	5.08	22 55 22	12 53 36	228	1.4348	1.3084	0.3106	308	4.004	1.066	. .	. .	. .
7	5.15	22 55 11	12 49 48	224	1.4338	1.3087	0.2798	332	3.994	1.063	. .	. .	. .
8	5.21	22 55 0	12 46 4	228	1.4328	1.3090	0.2466	363	3.983	1.060	. .	. .	. .
9	5.28	22 54 49	12 42 16	224	1.4318	1.3093	0.2103	396	3.973	1.058	. .	. .	. .
10	5.34	22 54 38	12 38 32	224	1.4308	1.3095	0.1707	440	3.962	1.055	. .	. .	. .
11	5.41	22 54 28	12 34 48	224	1.4297	1.3097	0.1267	490	3.952	1.052	. .	. .	. .
12	5.47	22 54 18	12 31 4	224	1.4286	1.3099	0.0777	552	3.941	1.050	. .	. .	. .
13	5.54	22 54 9	12 27 20	228	1.4275	1.3100	0.0225	637	3.930	1.047	. .	. .	. .
14	5.60	22 53 59	12 23 32	224	1.4264	1.3102	9.9588	749	3.920	1.044	. .	. .	. .
15	5.67	22 53 49	12 19 48	224	1.4253	1.3103	9.8839	906	3.909	1.041	. .	. .	. .
16	5.74	22 53 40	12 16 4	224	1.4242	1.3104	9.7933		3.899	1.039	. .	. .	. .
17	5.81	22 53 32	12 12 20	224	1.4231	1.3105	9.6788		3.888	1.036	. .	. .	. .
18	5.87	22 53 24	12 8 36	224	1.4220	1.3105	9.5222		3.877	1.033	. .	. .	. .
19	5.94	22 53 16	12 4 52	224	1.4209	1.3106	9.2739		3.867	1.030	. .	. .	. .
20	6.00	22 53 8	12 1 8	224	1.4198	1.3106	− 8.6374		3.857	1.028	. .	. .	. .
21	6.07	22 53 0	11 57 24	224	1.4187	1.3106	+ 9.0066		3.847	1.025	. .	. .	. .
22	6.13	22 52 53	11 53 40	224	1.4176	1.3106	9.3910		3.836	1.022	. .	. .	. .
23	6.20	22 52 47	11 49 56	228	1.4165	1.3105	9.5916		3.825	1.019	. .	. .	. .
24	6.26	22 52 40	11 46 8	224	1.4154	1.3104	9.7284		3.815	1.017	. .	. .	. .
25	6.33	22 52 34	11 42 24	224	1.4143	1.3103	9.8322	835	3.804	1.014	. .	. .	. .
26	6.40	22 52 28	11 38 40	224	1.4131	1.3102	9.9157	702	3.794	1.011	. .	. .	. .
27	6.46	22 52 23	11 34 56	224	1.4120	1.3101	9.9859	599	3.783	1.008	. .	. .	. .
28	6.53	22 52 18	11 31 12	228	1.4108	1.3100	0.0458	526	3.773	1.006	. .	. .	. .
29	6.59	22 52 13	11 27 24	224	1.4096	1.3098	0.0984	469	3.762	1.003	. .	. .	. .
30	6.66	22 52 8	11 23 40	228	1.4084	1.3096	0.1453	422	3.752	1.000	. .	. .	. .
31	6.73	22 52 3	11 19 52		1.4072	1.3093	+ 0.1875		+ 3.741	+ 0.998	. .	. .	. .

METEOROLOGICAL OBSERVATIONS

MADE AT THE

U. S. NAVAL OBSERVATORY

DURING THE

YEAR 1868.

INTRODUCTION.

The meteorological department, during 1868, was under the charge of Professor J. R. Eastman, U. S. N., who made a daily examination of all the records and a weekly inspection of the instruments in use. In addition to his duties in the astronomical department, this officer performed all the work necessary to prepare the observations for the press. The observations were made at 0h., 3h., 6h., 9h., 12h., 15h., 18h., and 21h., Washington civil time, by the Observatory watchmen, Messrs. T. Hays, D. Horrigan, and N. Cahill, who have acquired such a degree of skill as insures reasonable accuracy in their work.

METEOROLOGICAL INSTRUMENTS.

Standard Barometer.—This barometer was made by James Green, of New York, and is used simply as a standard by which the Newman barometer is occasionally tested. Drawings and a description of this instrument will be found in the annual report for 1862.

Newman Barometer.—The barometer in daily use was made by Newman, and is mounted against the northern wall of the northwest room on the first floor of the Observatory. The cistern is 103 feet above the mean half tide of the Potomac River. The cistern and tube are of glass; the internal diameter of the former being 3.0 inches and of the latter 0.532 inch. The barometer is mounted with the usual adjustments at the top and bottom, and is attached by heavy brackets to a substantial mahogany board which is firmly attached to the wall. The scale is attached to a brass rod, which has the usual adjustment to the surface of the mercury in the cistern. It is silvered and divided to 0.05 inch, but by means of a Vernier may be read to 0.002 inch. The temperature of the mercury in the cistern is determined by a small ivory-scale thermometer, the bulb of which is constantly immersed in the mercury. The constant correction of +0.005 inch, which was determined in 1864, has been applied to all the observations in 1868, and they have also received a further correction for temperature.

Dry-bulb Thermometer.—This is a mercurial thermometer, by Green, with a bulb 1.5 inch long and 0.2 inch in diameter. It has a glass scale 12 inches long, 0.8 inch wide, and 0.1 inch thick. The divisions on the scale are engraved to half degrees from −30° to +125° Fahrenheit. Several independent tests, in the early part of 1868, indicated that the *freezing point* had changed its position on the scale since 1863. The following table of corrections was therefore deduced, and has been used in the reductions for this volume:

CORRECTIONS TO READINGS OF THE DRY-BULB THERMOMETER.

Scale reading.	Correction.	Scale reading.	Correction.	Scale reading.	Correction.	Scale reading.	Correction.
°	°	°	°	°	°	°	°
23	− 1.1	43	− 1.2	63	− 0.8	83	− 0.8
24	− 1.1	44	− 1.0	64	− 0.8	84	− 0.7
25	− 1.0	45	− 0.9	65	− 0.7	85	− 0.6
26	− 0.9	46	− 0.8	66	− 0.7	86	− 1.0
27	− 0.9	47	− 0.7	67	− 0.7	87	− 1.1
28	− 0.9	48	− 0.7	68	− 0.7	88	− 0.9
29	− 0.9	49	− 0.7	69	− 0.7	89	− 0.7
30	− 0.9	50	− 0.9	70	− 0.7	90	− 0.8
31	− 0.9	51	− 0.9	71	− 0.7	91	− 0.7
32	− 0.8	52	− 0.9	72	− 0.8	92	− 0.6
33	− 0.8	53	− 0.9	73	− 0.9	93	− 0.7
34	− 0.8	54	− 0.9	74	− 0.9	94	− 0.8
35	− 0.8	55	− 0.9	75	− 0.9	95	− 0.7
36	− 0.8	56	− 0.9	76	− 0.8	96	− 0.7
37	− 0.8	57	− 0.8	77	− 0.8	97	− 0.7
38	− 0.8	58	− 0.8	78	− 0.7	98	− 0.6
39	− 0.7	59	− 0.8	79	− 0.3	90	− 0.7
40	− 0.7	60	− 0.8	80	− 0.8	100	− 0.7
41	− 0.9	61	− 0.8	81	− 0.8		
42	− 1.1	62	− 0.8	82	− 0.8		

Wet-bulb Thermometer.—This instrument is similar to the preceding in materials, construction, and dimensions. The scale extends from −35° to +115 F. Its bulb is covered with soft fine linen, which is kept moist by the capillary action of a bundle of fine linen fibers that communicate with water in a bird-glass placed close beside it. The linen is changed occasionally, before its free action is impaired by dust.

Maximum Thermometer.—This is a mercurial thermometer, with a bulb 1.5 inch long and 0.2 inch in diameter. The scale is of glass, 12 inches long, 0.8 inch wide, 0.1 inch thick, and is graduated to half degrees from −50° to +120° F. A short distance above the bulb the internal diameter of the tube is so contracted that, while with the increase of temperature the mercury passes this point freely, with the least decrease of temperature the column is broken at the contracted point if the instrument is nearly horizontal, and the top of the column marks the highest temperature. The top of the scale is attached by a metallic clamp to a pivot, around which the instrument revolves freely in a vertical plane. This pivot is secured to a walnut board fixed to a post about three feet from the ground, and the thermometer is placed nearly horizontal by resting the scale near the bulb on a wooden pin in the board. After each observation the instrument is adjusted by removing the pin and allowing the thermometer to swing freely from the pivot at the top of the scale, which motion is sufficient to reunite the column of mercury.

Minimum Thermometer.—This is a transparent spirit thermometer, with a round bulb about 0.5 inch in diameter. The scale is of silvered brass, 12 inches long, 1.0 inch wide, 0.06 inch thick, and is graduated to degrees from −67° to +131° F. Its registering index is a short, fine, steel wire, inclosed in a delicate blue-glass cylinder, with a knob at the extremity furthest from the bulb of the thermometer. This cylinder is drawn toward the bulb by the decrease of temperature, but when the temperature increases the spirit flows through and around the cylinder, which remains at the lowest point reached by the spirit. After each observation the index is adjusted by means of a small magnet.

Solar Thermometer.—The mercurial solar thermometer was made by Green, and consists of a blackened spherical bulb, and its tube inclosed within a bulb and cylinder of glass of the same form as the thermometer, but of about three times the diameter. Air has been exhausted from the cylinder, in the center of which the thermometer tube is fixed by cork collars, one being near each extremity. The scale is engraved on the thermometer tube, and has a range from +5° to +173° F. The temperature is registered in the same way as in the maximum thermometer, and after each observation the instrument is adjusted by holding it in a vertical position and gently tapping the external bulb. This thermometer rests in metallic crutches about three inches high, which are attached to a board 16 inches long and 5 inches wide. The board is painted green and placed on the grass about three yards west of the Meteorological Observatory.

METEOROLOGICAL OBSERVATORY.

In 1862 a small building for the special protection of thermometers was erected about four yards southwest of the southwest corner of the south wing of the Observatory. It is constructed of wood, and is painted white throughout. It is octagonal in form, each side being 2.4 feet wide by 6.3 feet high to the eaves. The roof is of tin, left bright on the under side. The ceiling is of thick plank, dovetailed together, and between it and the roof there is an open space communicating freely with the open air. The door is on the north side, and it, as well as the sides, is of double louver-work, with a space of three inches between the two divisions. The sides terminate one foot from the ground, and, as the building is situated on a grass-plat, under favorable circumstances the instruments should indicate correct temperature. The increasing density of the shade trees and shrubbery in the Observatory grounds, and especially about this building, will, however, soon render some new arrangement absolutely necessary.

The dry and wet bulb, and the maximum and minimum thermometers are within the Meteorological Observatory, and are all supported by means of arms and brackets to an upright metallic shaft, which is firmly secured to the ground in the center of the building.

The bulb of the minimum thermometer is 5.8 feet above the ground, those of the dry and wet-bulb thermometers are 4.2 feet, and that of the maximum is 3.2 feet above the ground.

A standard thermometer (Troughton and Simms, No. 1,) is suspended between the dry and the wet-bulb thermometers, and is frequently read as a check on the others.

A wooden frame is attached to the sides of the building from which the self-registering thermometers, which are issued to naval vessels with chronometers, are suspended for convenience in determining their errors by comparison with the standard.

From frequent comparisons it has been ascertained that the errors of the maximum, minimum, and wet-bulb thermometers are not appreciable, and the published observations are therefore the unmodified copies of the original record.

DIRECTION AND FORCE OF THE WIND.

An ordinary wind-vane revolves freely on a spindle at the top of the time-ball staff, and the direction of the wind is estimated from the known azimuths of the lines of the building.

The velocity of the wind is stated in numerals, of which 0 denotes a calm, 1 a very slight wind, and so on up to 10, which would indicate a violent hurricane. These numbers are mere estimates, and, at best, are only approximative.

CLOUDS.

In the description of the prevailing forms of clouds the nomenclature of Howard is used; C., K., S., N., being the symbols for the forms which he designates *cirrus*, *cumulus*, *stratus*, *nimbus*, and the letters C. S., C. K., their combinations indicate, *cirro-stratus*, *cirro-cumulus*, &c. The portion of the sky obscured is determined by estimate after careful scrutiny of the clouds or sky. A clear sky is denoted by 0, and a total obscuration by 10.

RAIN-GAUGE.

This instrument is placed within the inclosure for the protection of the solar thermometer. It consists of a cylinder 4.1 inches in diameter, soldered to an inverted cone, which is loaded with lead on the outside and near the apex. The cone rests in an aperture of a box, with a horizontal top, and this, aided by the weight of the lead, prevents disturbance during violent winds. The top of the gauge is 2.0 feet from the ground, and is free from all shelter even during driving rains. At the apex of the cone is a small aperture, through which the rain water passes to a receiving bottle within the box, and is measured in a graduated glass cylinder with an internal diameter of 0.60 inch. It was examined at least once each day, and, as the apex of the cone closes the mouth of the bottle except through the small aperture, there is little or no loss by evaporation. Each inch of snow has been assumed equivalent to 0.111 inch of rain.

Mean time.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	in.	in.	in.	in.	in.	in.	in.	in.
January 1	29.850	29.652	29.547	29.396	29.428	29.420	29.446	29.455
2	29.518	29.555	29.570	29.621	29.560	29.573	29.591	29.664
3	29.588	29.636	29.701	29.764	29.758	29.700	29.695	29.652
4	29.601	29.568	29.574	29.616	29.592	29.594	29.659	29.716
5	29.808	29.913	30.014	30.114	30.136	30.134	30.195	30.245
6	30.261	30.265	30.241	30.228	30.161	30.077	30.059	30.055
7	30.041	30.004	30.011	30.057	29.994	29.965	29.940	29.937
8	29.878	29.846	29.834	29.898	29.839	29.836	29.787	29.755
9	29.778	29.774	29.772	29.823	29.841	29.919	29.949	30.066
10	30.072	30.056	30.054	30.094	30.028	29.975	29.966	29.954
11	29.985	29.986	29.952	29.946	29.883	29.813	29.846	29.927
12	30.029	30.096	30.183	30.271	30.250	30.334	30.263	30.393
13	30.332	30.349	30.370	30.428	30.417	30.416	30.454	30.517
14	30.517	30.521	30.497	30.515	30.447	30.333	30.268	30.183
15	30.106	30.005	29.965	29.909	29.896	29.871	29.871	29.862
16	29.967	29.932	29.921	29.935	29.867	29.806	29.858	29.853
17	29.872	29.849	29.859	29.924	29.943	29.958	30.030	30.091
18	30.132	30.145	30.153	30.177	30.134	30.077	30.092	30.157
19	30.187	30.266	30.319	30.404	30.381	30.325	30.311	30.393
20	30.225	30.164	30.159	30.137	30.046	29.954	29.884	29.754
21	29.681	29.496	29.379	29.407	29.488	29.593	29.805	29.943
22	30.069	30.161	30.260	30.381	30.422	30.379	30.382	30.355
23	30.355	30.263	30.260	30.148	30.019	29.920	29.908	29.877
24	29.873	29.867	29.863	29.910	29.913	29.928	29.969	30.004
25	30.090	30.119	30.155	30.200	30.177	30.107	30.091	30.107
26	30.061	30.006	30.001	29.988	29.957	29.890	29.854	29.822
27	29.799	29.772	29.753	29.770	29.739	29.734	29.782	29.810
28	29.866	29.882	29.909	29.953	29.968	29.971	29.998	30.032
29	30.033	29.941	29.904	29.885	29.818	29.822	29.822	29.875
30	29.920	30.009	30.102	30.199	30.259	30.287	30.353	30.385
31	30.406	30.431	30.504	30.539	30.521	30.483	30.513	30.505
Hourly means.	29.997	29.985	29.993	30.021	29.996	29.974	29.988	30.013

Mean time.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	in.	in.	in.	in.	in.	in.	in.	in.
February 1	30.633	30.647	30.687	30.744	30.704	30.615	30.572	30.513
2	30.485	30.435	30.311	30.285	30.183	30.110	30.091	30.054
3	30.161	30.279	30.392	30.556	30.590	30.579	30.565	30.577
4	30.564	30.485	30.428	30.389	30.319	30.287	30.304	30.320
5	30.296	30.271	30.224	30.200	30.097	29.981	29.889	29.802
6	29.759	29.695	29.634	29.621	29.603	29.672	29.804	29.903
7	29.998	30.035	30.102	30.208	30.262	30.268	30.339	30.400
8	30.440	30.475	30.498	30.529	30.518	30.429	30.363	30.277
9	30.181	30.067	29.973	29.855	29.748	29.602	29.560	29.504
10	29.728	29.868	30.017	30.188	30.216	30.236	30.269	30.257
11	30.266	30.251	30.231	30.265	30.271	30.264	30.314	30.350
12	30.383	30.404	30.437	30.483	30.443	30.379	30.382	30.332
13	30.350	30.316	30.359	30.240	30.134	30.031	30.012	30.014
14	30.041	30.088	30.205	30.240	30.326	30.290	30.284	30.273
15	30.238	30.199	30.151	30.097	29.982	29.886	29.888	29.964
16	30.031	30.041	30.086	30.175	30.176	30.161	30.177	30.163
17	30.126	30.012	29.992	29.910	29.804	29.703	29.734	29.795
18	29.859	29.922	29.983	30.090	30.117	30.071	30.036	30.015
19	29.954	29.885	29.854	29.877	29.866	29.842	29.866	29.931
20	29.945	29.936	29.930	29.926	29.870	29.791	29.758	29.724
21	29.684	29.682	29.679	29.724	29.699	29.684	29.742	29.814
22	29.911	29.993	30.075	30.163	30.217	30.221	30.335	30.405
23	30.461	30.528	30.588	30.644	30.655	30.591	30.650	30.652
24	30.680	30.634	30.624	30.655	30.555	30.459	30.441	30.413
25	30.374	30.350	30.342	30.372	30.377	30.341	30.333	30.357
26	30.350	30.343	30.328	30.335	30.314	30.233	30.230	30.107
27	30.145	30.050	29.984	29.909	29.826	29.740	29.727	29.714
28	29.670	29.657	29.677	29.710	29.672	29.652	29.690	29.730
29	29.733	29.796	29.840	29.891	29.916	29.889	29.914	29.962
Hourly means.	30.153	30.150	30.160	30.182	30.154	30.104	30.113	30.129

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		in.	in.	in.	in.	in.	in.	in.	in.
March	1	29.994	29.987	29.982	29.973	29.893	29.775	29.705	29.591
	2	29.408	29.172	29.092	29.064	29.052	29.097	29.276	29.511
	3	29.704	29.820	29.927	30.027	30.011	29.963	30.012	30.139
	4	30.147	30.192	30.234	30.278	30.289	30.260	30.291	30.361
	5	30.413	30.433	30.506	30.558	30.536	30.504	30.531	30.542
	6	30.531	30.516	30.492	30.532	30.455	30.405	30.359	30.345
	7	30.293	30.228	30.215	30.215	30.157	30.086	30.098	30.068
	8	30.058	30.029	30.059	30.110	30.127	30.113	30.193	30.256
	9	30.278	30.302	30.359	30.378	30.352	30.298	30.293	30.298
	10	30.242	30.212	30.208	30.182	30.096	29.996	29.987	30.030
	11	30.165	30.224	30.301	30.388	30.427	30.403	30.445	30.489
	12	30.472	30.439	30.398	30.386	30.306	30.185	30.107	30.040
	13	29.930	29.893	29.828	29.805	29.762	29.700	29.684	29.704
	14	29.735	29.777	29.807	29.856	29.840	29.790	29.793	29.795
	15	29.818	29.849	29.889	29.923	29.902	29.854	29.862	29.890
	16	29.897	29.899	29.915	29.929	29.874	29.825	29.791	29.802
	17	29.801	29.787	29.805	29.811	29.763	29.747	29.741	29.735
	18	29.781	29.794	29.914	30.022	30.018	30.006	30.064	30.159
	19	30.172	30.172	30.237	30.269	30.211	30.124	30.116	30.108
	20	30.093	30.032	29.998	29.963	29.925	29.812	29.749	29.665
	21	29.569	29.522	29.415	29.461	29.510	29.498	29.594	29.684
	22	29.720	29.770	29.810	29.917	29.948	29.928	29.946	30.008
	23	30.004	29.981	29.970	29.907	29.809	29.712	29.671	29.670
	24	29.654	29.641	29.629	29.732	29.814	29.833	29.902	30.000
	25	30.059	30.061	30.054	30.112	30.102	30.057	30.060	30.087
	26	30.069	30.055	30.124	30.177	30.197	30.165	30.173	30.175
	27	30.131	30.097	30.046	30.017	29.956	29.872	29.848	29.839
	28	29.808	29.807	29.817	29.819	29.825	29.827	29.884	29.944
	29	29.957	29.977	30.036	30.086	30.112	30.107	30.146	30.202
	30	30.215	30.196	30.201	30.193	30.180	30.099	30.043	30.013
	31	29.974	29.911	29.880	29.876	29.825	29.775	29.774	29.791
Hourly means.		30.003	29.993	30.004	30.031	30.019	29.962	29.972	29.998

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		in.	in.	in.	in.	in.	in.	in.	in.
April	1	29.781	29.797	29.838	29.834	29.767	29.688	29.649	29.684
	2	29.676	29.669	29.665	29.641	29.582	29.650	29.691	29.727
	3	29.842	29.901	29.930	29.950	29.899	29.801	29.760	29.774
	4	29.761	29.674	29.724	29.750	29.678	29.551	29.451	29.443
	5	29.549	29.725	29.874	29.974	29.998	29.963	30.020	30.121
	6	30.153	30.159	30.187	30.207	30.147	30.022	30.004	30.016
	7	29.942	29.804	29.625	29.456	29.251	29.119	29.209	29.337
	8	29.420	29.514	29.644	29.673	29.638	29.624	29.730	29.923
	9	30.063	30.137	30.242	30.338	30.338	30.314	30.303	30.283
	10	30.233	30.150	30.109	30.017	29.946	29.860	29.855	29.884
	11	39.923	29.972	29.998	30.017	29.980	29.880	29.814	29.782
	12	29.730	29.705	29.686	29.672	29.635	29.727	29.838	29.985
	13	30.049	30.096	30.173	30.261	30.271	30.249	30.263	30.340
	14	30.333	30.312	30.343	30.346	30.273	30.204	30.131	30.086
	15	30.026	29.962	29.952	29.928	29.820	29.672	29.676	29.696
	16	29.712	29.699	29.687	29.699	29.696	29.650	29.631	29.690
	17	29.687	29.746	29.809	29.848	29.798	29.705	29.722	29.813
	18	29.881	29.924	29.922	30.085	30.131	30.143	30.208	30.309
	19	30.315	30.353	30.372	29.403	30.381	30.318	30.234	30.250
	20	30.192	30.124	30.046	30.035	29.957	29.905	29.912	29.938
	21	29.953	29.948	30.066	29.980	30.019	30.017	30.033	30.077
	22	30.104	30.117	30.158	30.203	30.127	30.145	30.109	30.137
	23	30.148	30.102	30.094	30.069	29.990	29.940	29.973	30.184
	24	30.269	30.310	30.368	30.416	30.396	30.328	30.278	30.267
	25	30.209	30.151	30.138	30.093	30.069	30.058	30.073	30.137
	26	30.151	30.179	30.216	30.270	30.255	30.208	30.205	30.235
	27	30.235	30.232	30.229	30.233	30.178	30.099	30.066	30.081
	28	30.070	30.064	30.087	30.103	30.089	30.039	30.031	30.093
	29	30.086	30.078	30.057	30.071	29.999	29.924	29.884	29.875
	30	29.863	29.814	29.773	29.781	29.706	29.648	29.641	29.712
Hourly means.		29.978	29.981	30.000	30.012	29.967	29.915	29.913	29.963

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		in.	in.	in.	in.	in.	in.	in.	in.
May	1	29.788	29.844	29.929	29.972	29.967	29.924	29.924	29.972
	2	29.946	29.917	29.899	29.844	29.778	29.737	29.757	29.759
	3	29.766	29.902	29.844	29.912	29.930	29.897	29.936	29.950
	4	30.008	30.015	30.022	30.010	29.964	29.918	29.868	29.859
	5	29.821	29.789	29.749	29.719	29.658	29.648	29.627	29.656
	6	29.672	29.666	29.670	29.668	29.688	29.640	29.610	29.621
	7	29.592	29.532	29.522	29.485	29.440	29.322	29.355	29.389
	8	29.439	29.403	29.562	29.658	29.713	29.746	29.769	29.825
	9	29.856	29.858	29.885	29.901	29.865	29.828	29.851	29.885
	10	29.917	29.918	29.954	29.975	29.964	29.952	29.986	30.051
	11	30.081	30.116	30.153	30.174	30.165	30.117	30.114	30.152
	12	30.121	30.118	30.137	30.114	30.062	30.027	29.992	29.951
	13	29.881	29.726	29.634	29.554	29.488	29.448	29.417	29.441
	14	29.427	29.417	29.489	29.567	29.599	29.615	29.679	29.722
	15	29.722	29.713	29.753	29.794	29.792	29.784	29.818	29.851
	16	29.862	29.852	29.862	29.873	29.863	29.817	29.807	29.827
	17	29.730	29.760	29.746	29.768	29.742	29.707	29.673	29.635
	18	29.564	29.635	29.645	29.680	29.680	29.671	29.720	29.815
	19	29.854	29.853	29.867	29.897	29.912	29.909	29.924	29.962
	20	29.964	29.936	29.959	29.952	29.939	29.888	29.875	29.880
	21	29.828	29.782	29.789	29.794	29.753	29.720	29.712	29.751
	22	29.751	29.742	29.763	29.776	29.741	29.725	29.711	29.747
	23	29.724	29.707	29.697	29.707	29.660	29.619	29.597	29.551
	24	29.569	29.557	29.630	29.652	29.671	29.677	29.707	29.704
	25	29.787	29.780	26.814	29.842	29.848	29.846	29.858	29.812
	26	29.914	29.905	29.919	29.944	29.908	29.873	29.850	29.854
	27	29.883	29.857	29.856	29.832	29.789	29.719	29.681	29.744
	28	29.684	29.672	29.679	29.700	29.695	29.667	29.683	29.719
	29	29.717	29.713	29.729	29.747	29.745	29.700	29.700	29.715
	30	29.696	29.676	29.721	29.755	29.744	29.714	29.724	29.731
	31	29.844	29.871	29.912	29.946	29.944	29.907	29.910	29.954
Hourly means.		29.787	29.785	29.800	29.813	29.792	29.766	29.769	29.803

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		in.	in.	in.	in.	in.	in.	in.	in.
June	1	29.969	29.986	30.017	30.053	30.012	29.955	29.918	29.941
	2	29.910	29.876	29.886	29.882	29.886	29.881	29.911	29.944
	3	29.968	29.996	30.039	30.055	30.095	30.084	30.083	30.055
	4	30.104	30.171	30.191	30.238	30.203	30.199	30.195	30.212
	5	30.207	30.193	30.189	30.204	30.186	30.112	30.070	30.056
	6	30.066	30.021	30.016	29.991	29.958	29.883	29.811	29.912
	7	29.919	29.927	29.978	30.038	30.037	30.012	30.018	30.060
	8	30.057	30.068	30.096	30.134	30.114	30.056	30.043	30.050
	9	30.031	29.980	29.998	29.988	29.954	29.933	29.950	30.020
	10	30.040	30.058	30.102	30.121	30.114	30.081	30.044	30.026
	11	29.961	29.919	29.890	29.848	29.832	29.799	29.820	29.839
	12	29.814	29.806	29.834	29.861	29.890	29.878	29.886	29.947
	13	29.962	29.957	29.986	30.031	30.012	29.997	29.977	30.014
	14	30.024	30.016	30.055	30.079	30.054	30.030	30.036	30.053
	15	30.061	30.066	30.091	30.078	30.065	30.009	29.940	29.966
	16	29.957	29.940	29.927	29.937	29.907	29.867	29.861	29.872
	17	29.864	29.853	29.880	29.897	29.879	29.837	29.807	29.822
	18	29.839	29.834	29.841	29.832	29.810	29.783	29.754	29.755
	19	29.778	29.769	29.764	29.778	29.748	29.686	29.651	29.675
	20	29.658	29.634	29.648	29.672	29.659	29.631	29.644	29.641
	21	29.660	29.664	29.672	29.690	29.708	29.677	29.696	29.755
	22	29.767	29.778	29.833	29.866	29.858	29.841	29.843	29.[illegible]
	23	29.940	29.965	29.987	30.011	29.999	29.966	29.964	29.9[illegible]
	24	29.987	29.988	29.998	30.021	30.000	29.971	30.015	30.0[illegible]
	25	30.064	30.076	30.091	30.130	30.135	30.093	30.083	30.073
	26	30.051	30.033	30.050	30.056	30.021	29.975	29.943	29.947
	27	29.896	29.871	29.864	29.855	29.824	29.790	29.783	29.797
	28	29.788	29.808	29.841	29.844	29.832	29.822	29.839	29.889
	29	29.904	29.938	29.994	30.026	30.025	30.022	30.028	30.072
	30	30.091	30.101	30.121	30.128	30.107	30.075	30.088	30.10[illegible]
Hourly means.		29.941	29.943	29.963	29.978	29.964	29.931	29.923	29.943

Mean time.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	in.	in.	in.	in.	in.	in.	in.	in.
July 1	30.110	30.106	30.111	30.154	30.132	30.085	30.077	30.109
2	30.102	30.096	30.138	30.149	30.115	30.067	30.067	30.083
3	30.088	30.072	30.100	30.104	30.106	30.068	30.051	30.068
4	30.067	30.062	30.082	30.085	30.056	30.008	29.996	30.017
5	30.007	29.979	30.008	29.999	29.975	29.904	29.901	30.000
6	30.022	29.974	29.989	30.006	29.991	29.956	29.935	29.964
7	29.961	29 982	29.957	29.937	29.896	29.829	29.825	29.854
8	29.859	29.830	29.841	29.861	29.858	29.808	29.805	29.851
9	29.863	29.842	29.860	29.867	29.859	29.850	29.854	29.882
10	29.906	29.922	29.954	29.986	30.001	29.974	29.951	29.972
11	29.995	29.987	29.996	30.015	29.995	29.956	29.924	29.953
12	29.952	29.954	29.959	29.971	29.954	29.922	29.914	29.950
13	29.961	29.975	29.987	29.992	29.989	29.954	29.927	29.966
14	29.961	29.957	29.970	29.976	29.946	29.909	29.908	29.904
15	29.899	29.877	29.872	29.864	29.835	29.789	29.744	29.764
16	29.745	29.754	29.763	29.783	29.749	29.739	29.751	29.798
17	29.847	29.867	29.910	29.937	29.929	29.894	29.872	29.912
18	29.930	29.908	29.914	29.911	29.892	29.857	29.829	29.870
19	29.872	29.873	29.868	29.888	29.856	29.792	29.790	29.850
20	29.844	29.817	29.834	29.892	29.887	29.855	29.856	29.874
21	29.900	29.875	29.904	29.903	29.871	29.836	29.814	29.826
22	29.787	29.782	29.792	29.791	29.751	29.706	29.755	29.764
23	29.754	29.747	29.777	29.789	29.767	29.722	29.718	29.740
24	29.723	29.713	29.710	29.688	29.675	29.638	29.638	29.624
25	29.612	29.626	29.642	29.687	29.706	29.702	29.747	29.810
26	29.835	29.870	29.892	29.915	29.944	29.740	29.942	29.975
27	29.958	29.942	29.933	29.932	29.924	29.921	29.951	29.979
28	29.981	29.984	29.986	30.009	30.002	29.980	29.971	30.027
29	30.034	30.038	30.051	30.062	30.035	30.010	30.006	30.017
30	30.008	29.997	30.026	30.035	30.020	29.981	29.964	30.000
31	30.000	29.983	29.978	29.974	29.945	29.889	29.894	29.884
Hourly means.	29.922	29.916	29.929	29.941	29.925	29.888	29.883	29.912

Mean time.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	in.	in.	in.	in.	in.	in.	in.	in.
August 1	29.840	29.826	29.824	29.813	29.769	29.702	29.686	29.723
2	29.691	29.675	29.686	29.658	29.655	29.626	29.633	29.656
3	29.666	29.687	29.718	29.768	29.784	29.760	29.768	29.818
4	29.832	29.868	29.889	29.931	29.935	29.927	29.950	30.000
5	30.028	30.050	30.080	30.109	30.109	30.083	30.100	30.128
6	30.137	30.123	30.127	30.137	30.119	30.066	30.054	30.064
7	30.042	30.025	30.005	29.996	29.950	29.907	29.866	29.880
8	29.850	29.817	29.786	29.790	29.756	29.709	29 679	29.730
9	29.744	29.738	29.728	29.746	29.748	29.720	29.735	29.816
10	29.880	29.896	29.930	29.954	29.858	29.915	29.925	29.940
11	29.912	29.896	29.906	29.902	29.864	29.820	29.784	29.808
12	29.789	29.840	29.883	29.972	29.975	29.972	29.987	30.040
13	30.060	30.080	30.117	30.162	30.133	30.086	30.066	30.102
14	30.096	30.094	30.102	30.123	30.075	30.047	30.033	30.042
15	30.049	30.033	30.057	30.069	30.021	29.978	29.968	29.976
16	29.941	29.938	29.943	29.955	29.942	29.926	29.938	29.909
17	30.024	30.045	30.084	30.140	30.125	30.093	30.087	30.114
18	30.113	30.095	30.102	30.130	30.122	30.081	30.051	30.084
19	30.070	30.046	30.048	30.068	30.025	29.975	29.936	29.965
20	29.952	29.919	29.917	29.933	29.926	29.882	29.885	29.922
21	29.926	29.908	29.953	29.993	30.003	29.972	29.958	30.033
22	30.025	30.018	30.070	30.081	30.076	30.059	30.029	30.045
23	30.048	30.031	30.056	30.070	30.047	29.988	29.973	29.974
24	29.967	29.960	29.964	29.982	29.958	29.932	29.933	29.963
25	29.959	29.955	29.996	30.031	30.033	30.024	30.030	30.054
26	30.051	30.048	30.063	30.105	30.097	30.047	30.027	30.066
27	30.067	30.047	30.086	30.130	30.116	30.096	30.084	30.148
28	30.183	30.196	30.208	30.215	30.184	30.145	30.129	30.123
29	30.086	30.015	30.039	30.039	30.003	29.958	29.938	29.952
30	29.936	29.916	29.940	29.984	29.966	29.936	29.928	29.972
31	29.967	29.968	29.974	29.983	29.935	29.857	29.820	29.858
Hourly means.	29.966	29.960	29.977	29.999	29.978	29.945	29.935	29.965

Mean time.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	in.	in.	in.	in.	in.	in.	in.	in.
September 1	29.832	29.829	29.883	29.893	29.875	29.864	29.876	29.906
2	29.920	29.888	29.949	29.997	30.008	29.984	29.988	30.034
3	30.030	30.048	30.049	30.055	30.019	29.982	29.977	30.000
4	29.983	29.973	29.977	30.003	29.956	29.902	29.902	29.917
5	29.912	29.900	29.941	29.990	29.966	29.948	29.938	29.957
6	30.008	29.998	30.011	30.012	29.976	29.914	29.899	29.904
7	29.854	29.796	29.848	29.851	29.832	29.825	29.878	29.920
8	29.940	29.994	30.015	30.028	30.016	29.970	29.938	29.956
9	29.930	29.894	29.884	29.877	29.836	29.791	29.806	29.846
10	29.838	29.843	29.875	29.894	29.874	29.839	29.854	29.900
11	29.919	29.932	29.963	30.014	29.995	29.986	29.973	30.025
12	30.054	30.044	30.040	30.048	30.027	29.966	30.000	30.006
13	29.992	29.954	29.962	29.961	29.937	29.929	29.911	29.951
14	29.950	29.958	29.990	30.042	30.047	30.043	30.078	30.104
15	30.111	30.096	30.130	30.122	30.094	30.055	30.033	30.057
16	29.981	29.937	29.945	29.911	29.904	29.926	29.980	30.046
17	30.097	30.108	30.179	30.217	30.188	30.167	30.201	30.221
18	30.249	30.274	30.295	30.334	30.332	30.299	30.302	30.335
19	30.362	30.346	30.388	30.419	30.365	30.299	30.263	30.273
20	30.236	30.188	30.160	30.091	30.022	29.963	29.940	29.936
21	29.926	29.950	30.002	30.025	30.010	29.959	29.960	29.975
22	29.964	29.950	29.958	29.960	29.893	29.832	29.821	29.815
23	29.753	29.693	29.789	29.803	29.836	29.843	29.941	30.034
24	30.096	30.119	30.162	30.164	30.131	30.087	30.048	30.020
25	29.998	29.864	29.872	29.823	29.782	29.720	29.724	29.752
26	29.843	29.905	29.967	30.024	30.011	29.978	29.976	30.000
27	29.988	29.976	29.960	29.970	29.939	29.899	29.900	29.910
28	29.910	29.900	29.920	29.929	29.892	29.836	29.876	29.922
29	29.981	30.017	30.073	30.148	30.110	30.057	30.064	30.122
30	30.130	30.153	30.159	30.179	30.120	30.060	30.039	30.066
Hourly means.	29.993	29.984	30.011	30.026	29.999	29.964	29.969	29.992

Mean time.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	in.	in.	in.	in.	in.	in.	in.	in.
October 1	30.048	30.054	30.065	30.105	30.095	30.059	30.077	30.107
2	30.123	30.127	30.146	30.177	30.066	30.117	30.100	30.105
3	30.083	30.063	30.048	30.073	30.066	30.069	30.102	30.139
4	30.124	30.122	30.132	30.122	30.068	30.013	30.001	29.955
5	29.896	29.834	29.802	29.780	29.736	29.681	29.672	29.710
6	29.727	29.771	29.888	29.937	29.990	29.971	30.016	30.065
7	30.052	30.062	30.070	30.076	30.010	29.943	29.916	29.891
8	29.869	29.837	29.823	29.832	29.883	29.929	30.043	30.123
9	30.170	30.186	30.231	30.269	30.226	30.182	30.179	30.159
10	30.159	30.129	30.135	30.133	30.102	30.060	30.048	30.079
11	30.030	29.994	30.018	30.058	30.017	29.966	30.023	30.033
12	30.061	30.054	30.078	30.120	30.105	30.076	30.107	30.112
13	30.172	30.192	30.208	30.147	30.179	30.108	30.086	30.086
14	30.060	30.018	30.034	30.055	30.023	30.001	30.002	29.955
15	29.938	29.928	29.936	29.935	29.906	29.867	29.865	29.879
16	29.889	29.895	29.925	29.954	29.941	29.901	29.926	29.957
17	29.945	29.925	30.028	30.182	30.253	30.280	30.357	30.424
18	30.481	30.494	30.512	30.499	30.437	30.346	30.321	30.255
19	30.197	30.115	30.091	30.047	29.986	29.946	29.987	30.034
20	30.065	30.079	30.120	30.173	30.142	30.121	30.132	30.131
21	30.123	30.075	30.048	30.065	30.000	29.958	29.945	29.925
22	29.885	29.881	29.889	29.934	29.927	29.973	30.067	30.145
23	30.190	30.233	30.285	30.369	30.375	30.381	30.411	30.427
24	30.438	30.431	30.431	30.454	30.379	30.305	30.288	30.238
25	30.268	30.214	30.209	30.179	30.091	29.978	29.997	29.974
26	29.961	29.973	29.929	30.092	30.088	30.089	30.115	30.166
27	30.189	30.191	30.207	30.212	30.113	30.055	30.019	29.969
28	29.873	29.863	29.867	29.896	29.914	29.960	30.063	30.125
29	30.167	30.212	30.274	30.360	30.338	30.306	30.335	30.370
30	30.399	30.423	30.471	30.500	30.485	30.441	30.446	30.476
31	30.441	30.383	30.339	30.291	30.172	30.038	30.000	29.866
Hourly means.	30.098	30.089	30.104	30.130	30.100	30.068	30.085	30.096

Mean time.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	in.	in.	in.	in.	in.	in.	in.	in.
November 1	29.741	29.734	29.800	29.837	29.803	29.781	29.833	29.875
2	29.937	29.979	30.011	30.058	30.049	30.055	30.091	30.095
3	30.082	30.072	30.065	30.078	30.014	29.951	29.939	29.939
4	29.916	29.925	29.953	29.960	29.914	29.854	29.834	29.809
5	29.769	29.723	29.774	29.789	29.814	29.858	30.035	30.095
6	30.141	30.293	30.247	30.289	30.263	30.227	30.272	30.310
7	30.306	30.327	30.361	30.405	30.362	30.307	30.304	30.306
8	30.278	30.244	30.237	30.246	30.180	30.134	30.147	30.125
9	30.085	30.065	30.078	30.099	30.043	30.011	30.028	30.018
10	29.988	29.960	29.950	29.962	29.897	29.847	29.838	29.826
11	29.837	29.857	29.920	29.986	29.982	29.986	30.060	30.134
12	30.203	30.230	30.305	30.376	30.369	30.337	30.353	30.387
13	30.384	30.386	30.387	30.388	30.352	30.298	30.287	30.302
14	30.299	30.285	30.293	30.309	30.236	30.191	30.177	30.197
15	30.188	30.189	30.197	30.218	30.198	30.170	30.188	30.207
16	30.206	30.219	30.235	30.298	30.266	30.259	30.240	30.235
17	30.241	30.189	30.131	30.095	29.992	29.891	29.791	29.660
18	29.533	29.582	29.642	29.711	29.714	29.738	29.787	29.823
19	29.838	29.863	29.880	29.906	29.842	29.782	29.791	29.801
20	29.772	29.707	29.679	29.645	29.588	29.573	29.574	29.525
21	29.604	29.729	29.799	29.858	29.857	29.859	29.871	29.863
22	29.848	29.849	29.854	29.907	29.932	29.941	30.019	30.064
23	30.063	30.062	30.089	30.100	30.138	30.118	30.149	30.169
24	30.197	30.195	30.203	30.235	30.181	30.125	30.148	30.135
25	30.140	30.132	30.124	30.138	30.086	30.013	29.954	29.971
26	29.806	29.698	29.591	29.575	29.616	29.698	29.807	29.894
27	30.002	30.034	30.088	30.153	30.120	30.094	30.093	30.088
28	30.083	30.017	29.983	29.949	29.826	29.702	29.680	29.683
29	29.706	29.730	29.785	29.832	29.824	29.783	29.699	29.609
30	29.509	29.428	29.411	29.425	29.397	29.384	29.439	29.472
Hourly means.	29.990	29.990	30.002	30.027	29.995	29.966	29.981	29.987

Mean time.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	in.	in.	in.	in.	in.	in.	in.	in.
December 1	29.508	29.543	29.569	29.658	29.650	29.654	29.762	29.825
2	29.883	29.916	29.966	30.016	30.022	30.048	30.115	30.187
3	30.243	30.264	30.282	30.347	30.314	30.254	30.314	30.321
4	30.294	30.254	30.243	30.234	30.175	30.050	29.944	29.814
5	29.788	29.764	29.789	29.815	29.839	29.843	29.944	29.982
6	30.009	30.062	30.091	30.149	30.109	30.076	30.079	30.046
7	29.954	29.843	29.654	29.437	29.239	29.254	29.294	29.319
8	29.337	29.416	29.482	29.572	29.589	29.588	29.676	29.759
9	29.793	29.843	29.951	30.014	30.012	30.011	30.033	30.060
10	30.044	30.010	30.014	30.040	29.936	29.928	29.941	29.939
11	29.943	29.914	29.888	29.866	29.832	29.769	29.806	29.874
12	29.950	30.024	30.130	30.234	30.271	30.819	30.371	30.405
13	30.444	30.455	30.464	30.508	30.461	30.406	30.371	30.351
14	30.308	30.269	30.204	30.161	30.062	29.985	29.940	29.914
15	29.940	30.036	30.106	30.151	30.149	30.135	30.164	30.135
16	30.096	29.977	29.899	29.865	29.697	29.623	29.607	29.611
17	29.692	29.580	29.572	29.539	29.477	29.411	29.479	29.499
18	29.519	29.551	29.689	29.793	29.826	29.882	29.975	30.049
19	30.116	30.167	30.215	30.244	30.237	. .	30.339	30.313
20	30.255	30.192	30.142	30.096	29.984	29.900	29.880	29.861
21	29.827	29.824	29.826	29.831	29.837	29.879	29.947	29.996
22	30.026	30.081	30.119	30.188	30.167	30.124	30.104	30.051
23	30.014	29.996	29.995	30.126	30.113	30.082	30.129	30.121
24	30.060	30.040	30.012	30.011	29.961	29.937	29.972	30.031
25	30.046	30.064	30.062	30.074	30.022	29.989	29.989	30.083
26	30.128	30.182	30.215	30.288	30.300	30.292	30.322	30.243
27	30.311	30.285	30.267	30.279	30.232	30.179	30.197	30.222
28	30.195	30.223	30.251	30.283	30.315	30.314	30.329	30.297
29	30.255	30.216	30.160	30.145	30.056	29.996	30.038	30.088
30	30.142	30.207	30.231	30.271	30.254	30.265	30.244	30.297
31	30.274	30.264	30.260	30.267	30.233	30.201	30.179	30.152
Hourly means.	30.013	30.015	30.024	30.048	30.012	29.979	30.016	30.027

Mean time.		oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
January	1	31.7	33.2	33.7	35.6	34.0	39.9	33.8	33.2
	2	32.7	33.4	32.7	34.2	37.6	36.7	35.2	34.8
	3	34.4	32.2	31.8	30.8	40.1	47.3	38.7	39.3
	4	38.8	37.8	37.2	38.0	43.5	54.6	47.6	47.8
	5	41.4	41.2	40.9	40.0	42.4	45.7	38.3	31.7
	6	29.6	28.6	28.1	30.1	31.7	31.2	31.2	30.7
	7	30.7	30.3	31.2	32.7	36.1	37.2	37.2	36.2
	8	34.7	34.7	35.2	36.2	39.7	40.1	38.9	35.7
	9	34.2	33.2	32.8	31.4	30.8	23.4	16.5	12.5
	10	11.5	12.0	12.0	15.0	23.4	26.1	22.5	19.0
	11	16.6	14.5	16.6	22.0	32.2	36.2	30.3	27.7
	12	20.5	17.0	14.6	17.2	21.0	21.3	21.5	20.5
	13	18.5	16.0	14.0	16.0	22.0	25.0	21.0	16.0
	14	14.5	15.0	16.0	17.6	17.0	17.5	18.8	20.4
	15	20.8	23.2	23.2	24.5	28.1	30.8	27.1	26.6
	16	26.6	27.9	25.6	23.1	32.6	37.5	30.6	28.1
	17	21.0	15.0	12.0	19.0	23.5	25.0	20.8	19.0
	18	14.0	10.0	9.5	13.3	26.5	30.6	24.9	25.1
	19	24.8	24.0	20.0	22.5	33.4	33.2	27.1	22.4
	20	22.9	25.1	26.6	29.6	33.2	34.2	32.7	32.7
	21	32.7	33.0	33.2	33.4	33.8	34.4	34.9	34.7
	22	31.2	26.3	23.1	27.3	39.3	38.3	30.7	27.1
	23	27.3	28.3	30.6	32.4	33.0	33.4	35.2	36.7
	24	33.5	36.2	38.4	39.5	44.1	42.4	36.7	32.7
	25	27.8	24.0	22.9	26.2	33.7	39.3	32.2	29.1
	26	28.1	29.1	30.1	33.2	39.7	39.7	36.4	36.2
	27	37.2	36.2	34.2	34.2	38.2	37.8	35.4	33.5
	28	32.2	29.1	26.1	25.6	25.9	28.3	25.8	25.7
	29	26.1	26.1	25.6	26.6	29.6	28.1	26.9	24.9
	30	23.4	19.0	16.0	12.5	19.0	21.6	17.5	10.5
	31	6.0	4.0	−1.2	8.0	26.3	31.2	24.5	16.0
Hourly means.		26.63	25.66	24.93	26.70	31.98	33.81	30.03	27.95

Mean time.		oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°		°	°	°	
February	1	11.6	6.0	4.0	6.8	30.6	33.2	24.7	20.[illegible]
	2	15.0	9.0	7.0	10.5	25.6	36.0	30.7	22.4
	3	19.0	19.0	13.0	10.6	15.6	20.2	14.0	6.[illegible]
	4	1.0	5.5	8.5	18.5	26.7	31.5	28.7	22.2
	5	16.0	17.5	19.5	20.4	25.3	28.6	30.4	29.2
	6	27.6	26.1	26.6	27.9	34.7	31.7	22.9	19.5
	7	14.5	14.2	13.6	17.0	21.0	24.2	18.6	15.0
	8	11.0	1.5	−3.0	1.6	25.0	25.8	24.0	22.0
	9	22.0	25.0	28.1	38.3	43.8	39.8	37.2	38.1
	10	38.2	29.6	24.4	22.0	25.0	26.1	21.0	18.5
	11	18.2	17.8	17.2	19.0	25.9	29.1	25.9	18.5
	12	13.3	9.0	6.5	13.0	30.1	35.7	29.7	25.[illegible]
	13	22.9	21.5	20.8	26.9	40.1	42.4	39.3	32.7
	14	36.0	34.2	25.6	24.0	29.1	32.7	26.9	22.2
	15	20.8	21.5	22.9	30.7	41.1	45.8	43.0	38.[illegible]
	16	38.3	36.4	35.2	35.2	36.7	38.7	34.5	29.2
	17	27.4	28.1	29.9	32.2	35.2	35.4	35.2	37.2
	18	34.7	33.2	27.1	25.6	30.0	36.0	32.2	27.7
	19	26.1	27.1	30.1	33.7	49.6	56.5	48.6	37.1
	20	30.8	28.1	26.6	31.7	49.1	54.6	48.8	46.[illegible]
	21	43.0	40.9	39.3	37.9	46.8	47.3	43.5	40.1
	22	32.7	24.6	21.5	21.0	29.1	29.6	24.0	20.[illegible]
	23	18.6	13.0	10.2	15.5	20.5	21.5	20.2	19.[illegible]
	24	18.5	19.5	18.5	19.0	20.3	21.0	20.0	20.[illegible]
	25	21.5	22.0	22.9	27.6	30.4	29.6	27.3	24.5
	26	24.2	24.0	24.0	25.1	27.6	29.1	27.6	2[illegible]
	27	27.6	27.9	28.1	29.5	32.2	33.2	22.4	32.[illegible]
	28	33.7	30.7	27.6	28.1	30.1	29.5	28.1	26.5
	29	23.1	22.9	23.2	24.5	27.6	30.9	29.6	34.[illegible]
Hourly means.		23.70	21.92	20.65	23.23	31.20	33.64	29.62	2[illegible]

Mean time.		oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.									
March	1	20.0	20.5	22.9	24.6	27.1	27.1	27.1	27.1
	2	28.5	35.7	30.7	29.6	31.7	33.8	31.6	17.5
	3	13.0	11.0	9.0	8.5	14.5	20.0	17.5	11.0
	4	10.8	8.5	8.8	17.8	27.1	32.2	30.1	26.1
	5	22.5	17.3	13.5	22.9	37.0	40.1	34.6	30.3
	6	29.1	29.1	29.3	33.5	39.7	41.7	40.1	38.3
	7	37.0	36.2	38.8	48.3	57.6	58.7	52.3	50.1
	8	49.7	48.6	47.8	49.1	61.0	67.8	58.7	48.3
	9	39.3	36.2	34.7	46.0	53.6	57.7	52.6	49.1
	10	47.5	41.4	37.7	45.8	61.8	71.4	65.8	61.2
	11	50.3	47.8	46.5	48.7	55.1	56.2	49.1	42.6
	12	39.5	38.2	37.7	39.3	38.7	40.3	39.8	39.7
	13	39.3	40.9	41.8	44.6	47.9	50.4	49.6	43.9
	14	38.8	40.5	39.3	41.8	47.5	52.1	50.9	49.9
	15	49.6	48.8	48.3	51.6	57.7	65.8	62.9	59.7
	16	58.2	57.7	55.7	62.7	70.1	75.9	70.8	65.7
	17	64.6	63.8	60.7	67.7	79.1	69.8	63.7	61.7
	18	61.2	59.2	54.1	51.3	56.7	61.0	54.6	47.8
	19	46.3	39.3	33.0	40.6	47.9	50.7	44.7	40.9
	20	37.5	35.2	34.7	34.7	34.4	33.5	32.6	32.2
	21	32.7	33.2	34.7	34.8	36.8	37.7	35.7	32.0
	22	30.7	29.1	27.3	31.2	38.9	45.2	43.9	36.7
	23	31.1	31.0	32.7	44.9	58.7	73.1	59.7	55.1
	24	54.1	53.1	52.1	58.2	63.4	63.7	54.7	48.7
	25	44.1	42.7	39.3	36.8	37.0	35.8	35.7	34.7
	26	32.7	32.2	31.2	33.7	39.3	39.3	38.3	37.2
	27	36.4	35.2	34.7	35.0	34.2	34.7	35.2	35.2
	28	35.7	35.4	35.7	40.4	47.8	50.7	48.8	46.1
	29	45.2	44.3	44.1	44.1	48.6	55.1	50.7	44.1
	30	38.3	34.2	32.0	40.0	45.6	47.9	47.3	43.5
	31	38.8	37.2	35.7	48.3	61.4	67.7	61.7	45.8
Hourly means.		38.79	37.53	36.27	40.73	47.03	50.23	46.48	38.78

Mean time.		oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.									
April	1	43.5	41.4	40.1	55.6	69.1	73.1	65.1	5[illegible]
	2	54.1	51.1	49.0	50.6	65.8	56.0	55.1	41.[illegible]
	3	42.3	37.4	35.0	39.1	48.3	50.1	46.9	41.4
	4	39.3	38.3	37.2	44.6	53.1	68.3	56.4	5[illegible]
	5	42.0	37.2	28.6	29.6	35.7	40.4	36.2	3[illegible]
	6	27.4	25.1	24.6	37.7	46.9	49.9	46.0	3[illegible]
	7	39.3	35.7	35.4	37.2	40.1	39.3	40.7	4[illegible]
	8	37.2	35.2	38.0	44.1	53.6	58.7	54.1	3[illegible]
	9	33.2	31.2	29.0	31.4	35.8	33.6	29.6	2[illegible]
	10	30.6	32.0	32.7	33.7	35.7	38.3	38.5	3[illegible]
	11	36.2	31.8	32.2	41.4	51.6	56.7	53.1	47.1
	12	40.6	48.2	46.3	58.4	68.0	53.5	38.8	31.7
	13	28.6	2[illegible].1	25.1	32.7	40.6	45.2	40.7	34.7
	14	31.7	29.1	33.8	40.1	44.6	42.1	42.2	41.[illegible]
	15	40.9	41.4	43.5	47.5	57.8	64.8	63.5	57.[illegible]
	16	56.7	53.6	54.3	58.7	60.2	62.2	62.2	61.[illegible]
	17	58.7	57.2	56.2	58.8	63.9	67.1	68.3	5[illegible]
	18	48.2	46.8	48.8	54.1	58.2	59.7	55.1	4[illegible].4
	19	43.5	43.0	43.3	47.1	48.8	49.1	48.3	40.[illegible]
	20	45.2	44.1	42.4	43.5	47.1	48.3	48.7	47.[illegible]
	21	45.2	44.6	45.7	48.3	50.6	50.9	51.5	45.[illegible]
	22	40.9	38.[illegible]	33.3	48.3	65.3	70.8	63.2	54.[illegible]
	23	51.4	47.8	47.5	62.0	70.8	74.9	67.3	5[illegible]
	24	44.3	39.3	33.3	43.6	49.7	53.3	49.1	4[illegible]
	25	42.3	43.5	43.5	45.2	47.3	46.3	43.6	41.2
	26	40.9	40.6	40.9	50.5	59.0	63.7	61.2	5[illegible]
	27	48.3	46.8	43.5	58.4	64.4	66.1	62.0	5[illegible]
	28	49.6	44.1	43.5	58.2	69.3	71.2	65.8	60.[illegible]
	29	57.2	54.1	47.3	48.7	51.6	53.1	53.7	51.[illegible]
	30	49.9	51.6	52.1	57.4	73.9	79.8	79.7	6[illegible]
Hourly means .		43.27	40.30	40.54	46.88	54.23	56.22	52.89	46.[illegible]

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
May	1	60.2	58.2	55.6	62.7	67.8	73.6	69.0	61.0
	2	55.1	55.1	56.2	61.7	62.1	72.7	64.3	61.2
	3	52.6	48.3	47.3	51.6	61.3	62.2	59.4	53.6
	4	51.6	49.1	58.7	55.1	59.4	61.7	59.4	55.1
	5	54.6	54.3	54.1	57.0	61.2	63.8	60.8	56.2
	6	57.4	56.7	57.2	59.7	62.7	66.7	66.3	61.7
	7	60.2	57.7	56.7	55.1	56.2	58.2	52.6	48.9
	8	48.9	47.3	44.4	48.5	54.6	55.1	55.1	48.7
	9	46.8	45.2	42.4	56.7	63.8	63.2	61.7	55.6
	10	55.1	49.6	46.8	59.9	65.6	68.1	64.3	55.3
	11	53.1	43.5	44.3	56.6	63.2	65.8	61.0	54.1
	12	48.7	46.3	47.8	59.4	63.5	62.5	57.6	53.6
	13	51.6	49.6	53.6	57.6	60.2	62.7	59.7	57.9
	14	58.7	59.7	59.2	61.7	66.8	67.2	58.2	57.2
	15	55.1	54.1	54.6	58.7	64.1	64.7	64.8	61.4
	16	61.0	56.8	58.7	61.9	64.8	69.6	66.5	60.5
	17	58.2	57.2	57.5	58.7	62.2	63.0	62.0	57.4
	18	56.0	55.1	56.0	63.0	69.1	69.3	59.7	54.6
	19	50.6	48.7	48.6	54.1	57.2	60.2	57.0	54.1
	20	50.3	47.3	49.1	58.6	61.4	57.6	54.1	51.9
	21	50.1	50.6	51.1	58.2	65.2	69.8	68.6	57.7
	22	53.1	50.6	52.6	66.3	72.9	75.7	71.4	63.2
	23	59.1	59.8	59.1	60.6	62.7	62.2	58.7	57.6
	24	56.7	56.2	56.4	60.5	63.8	66.2	65.6	60.7
	25	58.6	56.2	56.2	65.0	71.2	72.3	68.3	64.2
	26	61.2	58.2	57.5	68.3	73.6	79.2	72.6	63.8
	27	60.2	59.2	59.7	70.7	75.6	75.8	69.1	65.8
	28	61.6	61.2	62.2	64.3	66.8	73.6	66.8	63.2
	29	62.2	60.7	58.4	63.2	71.2	74.7	69.9	64.3
	30	63.2	61.7	61.0	67.3	75.6	80.4	77.3	69.5
	31	63.2	58.7	56.7	64.3	68.7	74.1	74.6	62.2
Hourly means .		55.97	53.97	54.18	60.23	64.66	67.48	63.75	58.46

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
June	1	57.2	54.1	55.6	68.7	73.4	77.3	74.1	66.8
	2	64.8	62.2	63.7	70.1	70.8	72.4	69.3	65.8
	3	64.8	59.4	56.2	58.2	61.2	61.7	60.7	59.2
	4	57.2	55.6	55.6	61.2	69.8	71.1	66.3	58.9
	5	57.2	55.9	57.2	62.6	68.7	75.4	71.2	66.8
	6	64.8	65.8	66.2	75.2	81.4	84.4	77.3	71.4
	7	69.3	68.3	67.8	70.8	75.7	80.7	74.6	71.8
	8	65.3	63.7	62.2	69.2	77.3	80.0	76.2	69.8
	9	68.3	66.3	66.5	69.3	77.3	81.9	70.1	64.8
	10	59.2	57.8	56.2	62.5	68.2	66.3	64.8	61.2
	11	59.2	57.2	58.2	59.4	60.8	60.0	58.5	58.7
	12	58.2	58.7	58.9	65.8	73.4	78.7	76.7	66.3
	13	59.8	55.4	57.2	70.3	79.0	81.6	79.2	69.1
	14	62.7	61.7	60.0	73.3	82.0	83.3	79.1	71.7
	15	62.2	63.7	64.7	74.1	83.8	85.5	81.2	74.4
	16	71.7	70.3	69.3	78.0	83.8	82.7	83.8	74.6
	17	72.2	69.8	70.3	79.1	82.2	82.0	82.7	73.9
	18	72.5	71.7	71.2	79.0	86.7	78.7	80.4	75.2
	19	72.3	71.2	71.5	76.5	84.7	88.3	79.8	72.1
	20	70.3	69.3	70.8	80.2	87.3	88.8	79.2	72.6
	21	70.7	70.2	71.0	76.7	77.8	69.3	77.3	72.6
	22	67.3	64.8	64.8	69.8	75.8	80.1	77.3	68.3
	23	64.3	63.7	62.7	69.2	76.3	79.7	76.3	67.8
	24	65.3	63.3	64.3	68.8	79.1	80.4	66.9	62.5
	25	62.2	61.2	61.7	69.3	75.0	76.1	74.1	67.7
	26	66.3	62.7	62.2	69.1	75.4	75.4	73.6	66.2
	27	60.7	60.2	61.2	73.1	79.2	72.6	77.3	69.8
	28	67.8	67.3	67.3	73.4	82.2	87.1	81.7	72.1
	29	66.8	65.3	64.8	73.6	81.7	83.5	76.2	70.5
	30	66.3	64.3	63.4	72.1	78.2	78.7	74.6	72.3
Hourly means .		64.90	63.37	63.42	70.62	76.94	78.14	74.68	68.43

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
July	1	71.2	70.3	69.9	74.6	83.3	86.8	83.6	78.1
	2	73.9	71.7	74.3	79.0	87.3	90.8	85.5	79.2
	3	74.3	71.3	71.5	79.2	87.8	89.7	86.4	78.0
	4	75.2	73.1	73.9	80.7	88.7	90.6	88.3	79.0
	5	73.3	71.6	72.1	82.2	87.6	90.0	86.3	73.6
	6	70.8	69.8	70.9	78.0	84.9	89.7	82.5	77.3
	7	74.1	73.1	72.7	79.0	86.3	88.8	84.2	79.6
	8	76.0	74.0	73.6	80.2	83.3	89.9	82.8	77.9
	9	75.4	73.1	72.1	76.7	85.7	86.4	82.2	77.3
	10	75.2	73.1	74.3	75.6	77.9	79.0	77.4	73.6
	11	71.2	70.3	71.2	76.2	85.7	85.3	84.9	75.8
	12	73.1	69.8	70.2	80.7	89.7	91.7	85.5	79.0
	13	73.6	71.2	70.7	80.8	92.3	93.8	90.8	82.7
	14	77.8	74.6	73.1	85.0	94.3	97.2	91.9	83.3
	15	78.7	74.1	74.1	87.3	97.6	97.9	94.0	83.8
	16	82.2	81.2	79.2	89.6	96.3	96.3	90.3	82.7
	17	77.3	75.4	72.6	80.7	87.3	90.3	85.4	79.0
	18	74.6	70.8	69.7	80.7	88.6	92.3	87.6	80.7
	19	76.7	75.2	73.1	82.1	92.2	93.7	88.7	79.7
	20	78.7	77.3	76.7	80.2	81.2	81.7	82.7	79.2
	21	78.2	75.7	75.8	79.7	87.6	83.8	83.3	79.0
	22	75.2	73.1	74.1	82.2	90.1	81.2	71.7	72.0
	23	70.8	69.8	69.3	77.7	86.1	89.4	85.0	79.4
	24	76.7	76.1	76.2	77.8	79.3	72.6	74.3	74.6
	25	74.6	73.6	72.1	78.2	73.8	85.9	84.4	75.7
	26	73.1	72.6	72.1	75.7	77.7	80.7	75.7	73.5
	27	72.1	71.2	69.3	69.3	68.0	68.3	68.2	65.3
	28	64.0	62.2	63.7	73.1	81.0	83.6	79.0	71.1
	29	67.3	64.8	64.3	71.8	82.7	84.9	79.2	73.7
	30	69.3	67.3	67.1	75.9	85.5	84.8	81.2	74.6
	31	69.8	67.3	70.1	78.7	85.9	87.1	75.2	72.1
Hourly means .		74.01	72.09	71.94	78.99	85.67	86.91	83.17	77.11

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
August	1	70.8	69.8	70.6	78.7	85.9	88.3	83.5	76.7
	2	75.7	73.1	73.6	75.7	81.2	82.4	79.4	75.7
	3	74.1	72.3	72.3	77.0	82.2	85.9	80.2	76.7
	4	74.6	72.1	71.6	73.1	81.7	84.4	77.3	75.2
	5	71.6	71.2	71.2	74.1	81.6	81.7	72.6	79.8
	6	69.3	66.3	64.8	74.4	81.4	82.2	79.2	72.6
	7	70.7	70.3	70.8	77.3	79.0	72.1	73.6	70.5
	8	69.8	68.8	70.0	75.2	83.6	85.5	80.7	70.8
	9	72.6	68.8	68.5	75.2	82.7	85.0	80.7	71.7
	10	68.3	65.3	64.5	74.1	79.0	79.5	76.0	71.2
	11	70.3	68.8	70.3	71.7	83.5	83.3	79.2	75.4
	12	73.7	68.3	66.3	72.6	75.5	78.0	75.2	65.8
	13	63.2	61.2	59.2	67.3	74.1	77.4	73.6	62.7
	14	59.2	56.5	55.6	68.7	78.7	80.7	75.2	66.8
	15	63.2	61.2	59.9	70.6	82.0	83.1	77.8	68.8
	16	67.3	64.3	62.8	73.7	82.4	85.5	76.7	72.1
	17	69.8	65.3	62.2	71.2	81.7	83.7	79.0	73.2
	18	71.6	70.9	70.3	76.2	84.7	84.9	80.2	75.2
	19	73.6	73.1	72.1	76.2	84.6	86.5	81.7	76.4
	20	74.6	73.6	73.1	76.4	82.7	82.2	79.4	75.2
	21	73.1	71.7	71.2	72.1	76.6	79.2	77.3	66.1
	22	65.3	62.3	64.3	73.6	79.1	77.3	75.2	71.4
	23	67.3	63.4	62.7	71.7	76.7	75.7	72.3	70.3
	24	68.3	66.3	65.3	69.5	79.2	82.7	72.9	70.3
	25	70.1	69.3	67.3	71.4	79.0	80.8	75.4	69.1
	26	67.3	65.8	65.5	70.7	79.7	83.5	78.9	72.1
	27	69.8	67.3	67.8	71.7	83.5	87.1	79.2	73.6
	28	71.7	70.3	69.3	71.3	75.2	73.6	72.4	70.6
	29	70.3	70.6	70.8	73.5	81.2	84.7	79.7	75.7
	30	73.6	72.1	70.3	77.7	86.4	81.7	77.9	74.1
	31	73.1	71.2	71.2	78.7	86.4	89.0	82.2	75.7
Hourly means .		68.19	68.14	67.60	73.53	81.01	82.18	77.58	75.25

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.									
September	1	74.1	72.7	72.4	76.2	82.6	82.7	76.2	72.6
	2	72.6	72.1	70.3	72.6	79.1	79.7	75.6	72.1
	3	71.6	72.1	71.2	69.3	76.6	77.8	75.2	73.4
	4	68.3	68.3	69.8	68.3	73.6	73.5	72.1	70.3
	5	68.3	67.3	64.8	69.6	75.2	79.1	71.5	64.3
	6	63.4	61.2	60.2	68.7	79.7	82.2	73.6	68.7
	7	68.2	67.3	67.3	69.1	78.0	81.2	74.1	66.1
	8	64.3	60.2	57.7	66.0	75.7	76.8	70.8	64.7
	9	63.7	65.5	66.9	71.2	79.7	82.2	78.7	73 3
	10	71.2	69.3	69.5	76.7	85.0	84.9	79.7	74.1
	11	71.7	71.4	71.2	78.9	84.2	87.6	81.5	75.2
	12	72.1	71.1	70.1	76.4	87.1	89.2	75.5	72.1
	13	72.1	71.3	70.6	77.9	84.6	72.0	73.1	73.1
	14	72.6	72.0	68.6	68.3	68.8	65.3	61.7	62.2
	15	59.7	59.3	59.3	64.8	70.9	71.7	68.1	66.8
	16	66.1	65.7	64.3	67.1	75.4	71.8	63.2	58.7
	17	56.2	52.6	50.1	54.6	59.6	60.7	54.6	49.6
	18	47.5	43.0	42.8	55.1	66.7	66.8	56.7	50.5
	19	46.8	46.5	44.6	56.1	67.3	69.3	61.8	58.5
	20	54.6	53.1	53.6	63.2	71.6	66.8	63.7	62.7
	21	61.2	59.2	57.2	60.0	66.8	70.1	59.9	53.1
	22	52.0	54.7	55.1	62.4	66.1	67.5	66.1	63.7
	23	64.3	63.7	67.1	72 7	81.1	81.7	70.8	66.7
	24	60.7	57.7	56.4	58.2	58.7	55.9	52 6	52.6
	25	52.3	52.0	52.4	56.6	68.8	72.1	71.7	67.8
	26	59.7	54.6	53.6	55.1	58.7	57.7	65.7	55.1
	27	54.6	54.6	54.6	56.9	60.2	63.2	61.7	60.7
	28	58.7	58.1	58.6	62.8	73.4	79.0	68.0	64.0
	29	59.7	56.2	53.1	57.6	65.5	69.7	57.8	58.3
	30	50.2	46.3	44.7	55.1	71.0	71.2	60.6	55.6
Hourly means.		62.62	61.30	60.60	65.58	73.06	73.65	68.08	64.05

Mean time		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h
1868.									
October	1	55.1	54.4	50.6	58.7	74.9	73 1	67.3	[illegible]
	2	57.2	56.7	57.4	61.6	64.3	65.7	61.6	[illegible]
	3	59.2	59.2	58.7	61.4	63.7	63.2	60.1	[illegible]
	4	58.1	56.7	56.2	58.2	61.8	60.5	56.7	[illegible]
	5	52.1	52.1	52.6	56.2	62.7	69.8	60.9	[illegible]
	6	56.7	55.1	53.4	58.5	66.8	70.3	59.6	[illegible]
	7	50.1	51.1	52.3	59.0	70.6	71.0	66.1	[illegible]
	8	65.3	64.3	65.8	69.8	60.8	62.8	51.3	[illegible]
	9	42.2	40.1	37.2	47.5	55.8	53.7	48.7	[illegible]
	10	43.0	40.9	42.0	51.3	54.6	59.2	56.7	[illegible]
	11	56.2	56.7	56.7	58.2	66.8	71.6	63.0	[illegible]
	12	54.1	50.1	48.5	56.2	68.3	70.8	59.8	[illegible]
	13	48.3	45.7	42.8	53.3	63.7	67.7	57.7	[illegible]
	14	52.6	51.1	54.6	57.7	60.5	56.8	55.7	[illegible]
	15	57.4	56.7	56.2	58.7	61.2	61.2	60.1	[illegible]
	16	58.4	57.5	56.2	55.0	60.2	64.7	54.6	[illegible]
	17	50.9	49.1	51.1	47.3	48.7	50.6	42.4	[illegible]
	18	33.4	31.2	29.9	37.9	50.1	54.9	44.7	[illegible]
	19	42.1	43.3	45.7	50.1	62 4	61.2	57.9	[illegible]
	20	51.6	50.1	44.1	49.5	54.5	54.1	50.7	[illegible]
	21	48.3	47.3	46.7	46.5	49.1	48.0	46.3	[illegible]
	22	44.3	43.9	42.1	47.8	53.7	50.1	43.2	[illegible]
	23	37.7	35.7	34.7	39.8	46.9	49.5	40.1	[illegible]
	24	34.0	33.2	30.6	38.3	49.6	55.8	44.6	[illegible]
	25	40.5	39.3	38.3	44.1	51.7	58.4	52.1	[illegible]
	26	45.7	41.8	40.9	50.0	63.7	64.3	53.6	[illegible]
	27	41.8	39.5	38.5	45.9	58.8	64.3	56.7	[illegible]
	28	53.9	53.1	54.6	57.2	66.5	62.2	53 6	[illegible]
	29	47.3	41.8	38.3	46.1	56.5	58.6	57.0	[illegible]
	30	37.6	35.6	33.8	42.5	58.2	59.7	49.7	[illegible]
	31	44.4	43.5	45.5	53.5	60.4	61.7	62.0	[illegible]
Hourly means.		49 02	47.64	46.97	52.19	59.89	61.15	54.66	[illegible]

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.									
November	1	58.1	50.6	42.3	38.4	40.1	45.6	43.6	42.2
	2	40.1	39.8	39.5	41.0	42.0	44.6	41.4	39.8
	3	35.2	32.8	31.4	39.0	49.6	54.6	45.2	40.9
	4	38.3	35.7	34.6	41.4	59.5	65.9	54.6	50.9
	5	50.1	49.1	48.2	50.3	59.4	58.7	50.1	45.8
	6	41.1	39.8	37.8	42.6	48.5	52.3	45.8	36.7
	7	33.7	32.7	31.0	40.1	55.1	54.6	49.3	45.6
	8	45.2	44.6	45.4	50.1	67.3	69.5	59.7	59.8
	9	58.6	55.4	52.7	57.8	73.1	72.3	62.2	59.2
	10	55.6	55.6	56.2	61.7	73.6	72.7	64.8	62.2
	11	60.2	51.1	46.1	44.1	46.8	47.5	40.5	38.9
	12	37.4	34.7	32.5	38.8	44.8	47.9	40.6	36.2
	13	33.7	30.7	28.5	36.8	51.5	53.1	47.3	39.3
	14	36.0	32.7	30.7	36.0	58.6	61.0	51.3	40.4
	15	38.3	36.8	35.7	41.8	59.2	61.0	50.6	45.2
	16	37.4	37.1	43.5	43.5	46.5	48.4	45.5	45.2
	17	45.5	44.3	43.0	44.9	47.5	50.1	50.4	51.1
	18	50.9	49.1	46.6	42.0	47.3	49.1	42.3	36.7
	19	33.9	31.7	31.0	34.7	54.0	53.1	45.6	40.5
	20	40.0	39.7	39.5	39.9	36.0	35.0	32.2	32.2
	21	31.7	31.4	34.2	37.0	40.9	38.3	37.2	36.0
	22	37.7	36.2	36.7	37.2	36.5	37.1	34.3	34.2
	23	31.2	29.2	28.3	34.4	42.3	40.0	37.6	33.2
	24	33.5	32.2	30.7	37.6	49.4	51.8	43.0	35.2
	25	32.6	30.0	30.2	35.2	45.8	46.8	44.9	44.1
	26	43.0	43.0	43.0	45.2	54.4	50.4	47.2	44.6
	27	39.1	37.2	33.7	38.3	45.5	47.7	40.1	33.2
	28	30.2	27.6	26.8	30.7	48.4	51.0	44.7	42.6
	29	41.8	41.4	40.4	42.5	44.9	48.3	42.3	35.2
	30	35.5	35.7	34.4	35.7	50.9	47.9	41.2	39.3
Hourly means.		40.85	38.93	37.82	41.29	50.65	51.88	45.85	42.21

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h
1868.									
December	1	36.2	35.2	33.4	33.2	37.2	37.7	33.2	[illegible]
	2	28.1	26.6	25.3	29.1	37.2	37.7	32.2	[illegible]
	3	25.1	23.4	25.0	27.3	37.2	39.1	31.9	[illegible]
	4	28.3	28.6	29.5	31.4	34.1	30.3	30.1	[illegible]
	5	30.7	31.0	30.9	31.7	34.2	39.3	34.8	[illegible]
	6	32.8	29.6	29.1	32.4	40.9	40.7	37.6	[illegible]
	7	37.2	36.7	34.0	36.7	41.0	38.0	36.1	[illegible]
	8	36.0	35.8	37.2	37.2	38.9	39.3	34.7	[illegible]
	9	27.7	27.5	27.0	28.4	31.8	31.8	25.6	[illegible]
	10	21.3	21.5	25.5	26.1	36.7	35.2	29.2	[illegible]
	11	24.5	24.8	22.5	22.9	23.4	23.2	21.3	[illegible]
	12	18.7	18.4	14.3	17.5	22.9	24.6	19.5	[illegible]
	13	15.2	15.0	14.5	19.3	28.4	28.6	24.6	[illegible]
	14	19.0	17.5	16.2	21.5	27.6	29.8	28.9	[illegible]
	15	25.0	23.4	28.6	31.8	38.3	37.3	32.2	[illegible]
	16	29.1	30.1	30.1	31.2	33.1	33.8	33.2	[illegible]
	17	32.6	31.8	30.5	31.0	33.9	38.3	38.6	[illegible]
	18	41.1	38.5	36.7	40.1	43.6	43.2	36.2	[illegible]
	19	27.1	24.8	27.6	29.7	38.7	. .	30.7	[illegible]
	20	30.1	31.1	32.2	36.2	41.8	48.3	46.2	[illegible]
	21	38.3	38.0	36.4	40.9	50.3	47.9	40.9	[illegible]
	22	38.3	35.4	34.2	33.2	41.3	39.9	35.2	[illegible]
	23	33.2	33.2	32.5	23.4	27.3	26.1	20.9	[illegible]
	24	16.3	16.0	18.4	20.8	22.0	22.6	20.0	[illegible]
	25	16.8	15.0	12.5	16.3	27.1	31.7	27.1	[illegible]
	26	21.0	20.8	19.8	27.5	33.6	33.1	29.5	[illegible]
	27	27.7	27.9	29.1	29.6	31.5	33.2	32.7	[illegible]
	28	27.4	26.1	22.2	22.0	29.1	31.4	29.5	[illegible]
	29	29.4	29.4	29.5	30.0	32.0	32.7	32.7	[illegible]
	30	33.1	32.2	31.7	32.5	33.0	30.5	28.6	[illegible]
	31	27.6	28.6	28.9	30.1	32.6	33.4	32.8	[illegible]
Hourly means.		28.22	27.55	27.27	29.06	34.22	34.62	31.18	[illegible]

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
January	1	32.0	33.7	34.0	36.2	34.2	38.0	34.0	33.2
	2	32.6	33.5	32.5	34.0	36.5	36.0	35.6	35.4
	3	35.0	32.0	30.0	31.0	40.0	44.6	38.5	39.0
	4	39.0	38.0	37.7	38.5	43.0	45.0	47.0	47.2
	5	41.5	41.2	38.0	37.5	37.8	40.0	35.5	31.0
	6	29.5	28.5	28.0	29.0	31.5	31.5	31.5	31.0
	7	30.0	31.0	31.5	32.5	36.2	36.8	37.5	36.6
	8	35.0	35.0	35.5	36.5	39.0	39.0	38.5	34.8
	9	33.8	32.0	30.0	29.5	28.0	22.2	12.0	10.0
	10	11.0	11.5	10.0	15.0	20.8	23.7	21.5	18.5
	11	16.4	14.5	16.4	21.8	27.0	32.5	27.8	25.2
	12	20.0	17.0	15.0	16.4	19.5	19.2	21.0	20.0
	13	18.5	16.0	13.5	15.0	20.0	23.3	19.5	16.0
	14	14.0	15.0	16.0	17.0	17.2	18.2	19.5	21.0
	15	21.5	23.5	24.0	24.6	28.4	31.0	26.5	26.5
	16	26.5	28.0	26.0	23.0	31.5	32.0	28.5	27.0
	17	20.5	15.0	12.0	18.0	20.0	21.0	19.2	18.5
	18	14.5	10.5	10.0	13.2	23.6	27.5	23.7	24.0
	19	24.5	23.2	19.2	22.5	29.0	29.0	25.5	22.5
	20	23.4	25.0	26.7	29.8	33.5	34.5	33.0	33.0
	21	33.0	33.2	33.5	34.0	34.0	34.4	33.0	33.0
	22	31.0	26.5	23.5	25.6	32.5	34.5	29.0	26.5
	23	26.6	27.4	30.5	32.5	33.0	33.5	35.5	37.2
	24	34.0	34.0	34.5	34.6	42.5	43.0	34.0	29.0
	25	26.2	23.2	22.5	25.0	29.8	32.8	29.0	27.5
	26	27.0	27.0	28.5	30.7	33.0	35.5	34.5	35.0
	27	37.0	36.0	35.0	34.5	38.5	38.2	35.5	32.8
	28	32.5	29.0	26.0	25.6	26.0	27.8	25.7	26.0
	29	26.2	26.5	26.3	27.0	30.0	28.5	27.0	25.0
	30	23.0	19.0	16.5	12.5	18.0	20.4	17.0	10.0
	31	5.5	4.0	−0.9	8.5	24.0	28.0	23.0	16.0
Hourly means.		26.49	25.48	24.55	26.15	30.26	31.92	29.00	27.37

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
February	1	10.4	6.0	2.6	6.0	28.0	29.8	24.5	20.5
	2	15.0	9.8	7.5	10.0	24.6	31.6	28.5	21.5
	3	19.0	18.5	13.0	11.0	14.2	17.6	13.0	7.2
	4	1.0	5.5	9.0	17.8	25.0	28.4	27.0	22.0
	5	16.2	17.0	19.5	20.5	25.5	28.6	31.0	29.2
	6	28.0	26.5	27.0	28.2	32.5	27.0	21.5	19.4
	7	14.5	14.0	13.2	15.5	18.5	20.0	17.5	14.3
	8	11.2	. .	. .	2.0	22.5	23.5	23.0	21.5
	9	24.0	26.5	29.5	32.3	33.6	35.0	38.2	39.5
	10	30.5	29.0	24.0	21.0	22.5	22.5	20.0	17.5
	11	17.5	17.6	17.8	18.5	23.4	26.5	25.0	18.0
	12	13.0	9.2	6.0	12.5	26.5	31.5	28.0	24.5
	13	23.0	21.6	20.6	25.5	36.0	37.0	35.4	31.5
	14	35.0	34.0	25.4	23.5	25.6	28.2	24.8	21.5
	15	20.5	21.5	23.2	30.0	38.1	41.4	39.5	36.4
	16	36.0	34.5	32.5	32.0	34.0	34.0	32.5	29.0
	17	27.8	28.5	30.2	32.4	34.5	35.5	35.5	34.5
	18	31.0	32.0	26.2	25.6	26.6	32.8	29.0	26.5
	19	24.5	26.0	28.0	31.0	43.5	46.5	44.0	35.6
	20	30.7	28.0	27.0	31.5	43.6	48.6	44.5	44.0
	21	42.5	41.0	38.2	37.4	44.5	46.0	42.5	38.2
	22	31.2	23.5	20.5	18.0	24.0	24.0	22.0	19.0
	23	18.0	12.5	10.0	14.2	18.0	18.6	18.0	17.5
	24	18.0	18.5	18.0	19.4	21.0	21.8	19.0	19.6
	25	21.0	21.4	22.0	27.0	30.0	29.7	28.0	25.0
	26	24.8	24.6	24.8	25.5	28.0	29.5	28.0	27.2
	27	28.0	27.5	28.7	30.0	32.4	33.6	32.8	31.5
	28	31.5	28.5	26.6	26.0	25.0	26.0	26.0	24.5
	29	22.5	22.0	22.2	22.3	24.5	29.5	25.6	22.5
Hourly means.		23.18	22.33	21.54	22.28	28.48	30.51	28.42	25.48

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
March	1	19.5	20.0	22.5	24.0	25.5	25.8	25.4	26.4
	2	29.0	31.3	31.2	29.8	32.2	32.8	30.2	17.0
	3	13.0	11.0	9.4	8.5	14.5	18.5	13.0	10.0
	4	10.5	8.5	9.0	18.4	24.5	28.5	27.5	24.5
	5	21.5	16.6	13.3	22.0	32.8	35.0	30.8	28.0
	6	27.0	28.0	29.0	31.2	35.8	40.0	40.5	38.2
	7	36.5	36.5	39.0	46.5	53.5	53.0	49.0	48.6
	8	49.0	48.7	48.0	48.7	57.5	62.0	54.0	46.5
	9	38.5	36.0	34.8	42.0	46.0	48.5	46.2	46.0
	10	46.5	41.0	37.8	45.0	59.0	63.0	60.0	57.5
	11	47.2	44.5	43.2	43.8	46.0	46.0	43.0	37.4
	12	36.5	36.0	35.6	36.6	38.6	40.0	40.0	39.8
	13	39.5	41.5	42.5	45.0	48.0	50.0	49.5	43.5
	14	39.3	41.5	40.0	42.8	47.5	51.5	50.9	50.5
	15	50.0	49.0	48.8	51.6	56.0	60.5	58.5	57.8
	16	57.5	57.0	55.8	61.0	65.5	67.0	65.5	63.5
	17	62.5	61.5	59.8	64.0	69.5	66.0	62.5	60.2
	18	61.0	59.0	45.0	42.3	46.2	48.5	44.0	40.0
	19	38.5	36.0	29.5	35.5	41.4	43.5	38.6	37.5
	20	36.5	34.0	34.5	35.0	34.8	34.0	33.2	32.6
	21	32.5	33.0	33.5	33.3	34.0	33.5	33.0	29.5
	22	30.0	29.0	28.0	31.6	33.0	37.0	37.0	33.5
	23	30.5	30.2	32.2	41.0	51.0	60.5	53.0	51.5
	24	52.0	53.0	52.0	56.5	56.6	56.6	49.8	44.5
	25	41.5	41.0	37.8	37.0	37.3	36.1	36.0	35.0
	26	33.0	33.0	32.4	32.5	35.4	35.0	35.1	35.4
	27	34.6	34.6	34.6	33.5	34.5	35.2	35.5	35.5
	28	36.0	35.5	36.0	40.1	45.3	47.6	47.5	46.5
	29	44.5	43.2	42.0	40.8	42.8	46.5	45.4	40.0
	30	36.0	32.0	30.0	35.5	38.5	40.5	40.5	38.5
	31	35.0	35.0	33.5	42.5	51.8	52.3	51.0	43.5
Hourly means.		37.58	36.68	35.51	38.65	43.06	44.99	42.81	39.96

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
April	1	40.2	39.0	37.5	48.0	56.5	57.0	54.9	50.5
	2	49.0	52.0	49.9	57.5	66.5	56.8	56.0	50.5
	3	37.0	36.0	32.0	34.0	41.5	43.3	42.3	40.2
	4	39.0	38.5	37.2	39.0	45.5	49.0	47.6	46.0
	5	41.0	35.0	25.0	27.0	34.0	33.6	30.5	28.5
	6	27.0	24.0	24.0	35.0	39.3	41.5	40.3	36.5
	7	36.5	35.5	36.0	37.8	40.7	39.5	39.6	38.6
	8	36.0	33.3	33.4	38.3	45.0	46.0	42.5	34.5
	9	39.2	29.0	24.5	28.4	31.8	32.5	30.5	30.8
	10	31.5	32.6	33.2	34.0	35.7	38.5	38.4	35.0
	11	36.0	32.0	32.2	38.2	46.0	50.2	47.5	45.5
	12	46.0	46.5	45.5	53.0	59.3	48.5	37.8	32.0
	13	29.0	27.2	24.5	29.7	36.5	39.0	35.6	31.8
	14	29.5	28.5	33.0	36.5	41.0	42.5	42.8	42.5
	15	41.5	41.8	44.2	48.0	57.5	61.8	50.6	57.5
	16	55.2	53.5	54.4	59.0	60.7	62.7	61.8	61.0
	17	59.0	57.0	56.5	55.0	54.5	58.0	56.0	49.0
	18	44.0	43.0	43.5	45.8	48.5	48.2	45.5	43.5
	19	40.0	40.0	41.5	41.5	42.0	43.5	42.5	42.6
	20	41.5	42.5	43.0	44.3	47.0	48.0	48.0	47.0
	21	44.2	44.0	45.5	48.0	50.2	50.8	50.5	46.2
	22	42.0	39.5	39.0	38.6	58.5	60.8	56.6	51.2
	23	50.0	47.0	46.5	56.5	61.5	65.0	57.8	45.0
	24	40.5	35.5	35.8	37.8	44.0	47.0	43.2	43.2
	25	41.5	42.0	43.3	45.5	47.5	46.5	44.0	41.4
	26	41.0	40.8	40.8	47.3	50.6	55.5	52.0	48.0
	27	44.5	43.5	43.0	53.9	54.3	57.0	55.0	49.8
	28	48.0	44.5	44.0	54.0	59.0	61.0	61.0	57.5
	29	56.0	54.0	47.0	48.5	50.5	52.6	53.0	51.8
	30	50.0	52.0	52.5	57.3	69.2	71.5	64.2	56.3
Hourly means.		41.89	40.32	39.61	43.91	49.16	50.26	47.60	44.46

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
May	1	53.3	53.0	51.5	55.0	59.5	62.0	59.4	56.0
	2	53.0	53.0	54.0	59.6	66.5	66.3	63.5	61.5
	3	52.8	48.5	47.5	51.0	57.4	57.6	55.8	52.0
	4	51.5	49.2	49.0	53.5	55.4	57.5	55.8	54.5
	5	54.0	54.0	54.0	56.5	59.5	61.5	60.2	56.0
	6	57.5	56.2	57.2	58.8	61.3	63.8	63.5	61.5
	7	60.5	58.0	57.0	55.5	56.4	58.0	52.6	49.0
	8	49.0	48.0	43.6	44.5	47.0	47.0	47.5	46.0
	9	46.5	45.0	42.8	50.0	54.4	52.0	51.5	52.0
	10	50.5	48.0	46.5	52.0	53.5	54.5	63.5	50.5
	11	50.0	42.0	41.8	49.6	55.5	50.0	53.0	50.2
	12	46.0	46.0	47.5	53.4	54.6	54.2	51.0	49.5
	13	50.5	50.0	54.0	58.0	60.5	62.8	60.0	58.2
	14	59.0	60.0	58.8	58.0	58.0	58.0	55.5	55.5
	15	54.0	53.5	54.5	57.2	59.7	60.8	59.8	59.5
	16	59.2	56.8	58.5	66.0	62.5	64.0	62.5	59.0
	17	58.0	57.0	57.6	59.0	61.5	61.6	60.5	57.5
	18	55.5	55.0	56.0	58.2	61.5	61.5	57.5	51.0
	19	46.5	46.0	46.0	50.0	52.5	54.5	53.5	52.0
	20	50.0	47.0	49.0	56.0	57.0	54.5	52.8	52.0
	21	50.5	51.0	51.2	55.8	58.7	60.4	56.8	54.0
	22	51.6	50.5	50.5	56.4	61.5	65.5	65.5	59.5
	23	58.0	58.8	58.0	60.3	60.6	60.3	59.0	57.8
	24	57.0	56.5	55.0	58.0	60.0	63.6	63.3	59.6
	25	59.0	56.0	55.7	60.8	64.5	63.5	61.2	61.0
	26	59.0	57.8	57.4	62.5	65.0	70.5	65.5	60.7
	27	59.0	58.5	59.5	66.5	69.3	68.8	64.5	62.3
	28	61.6	61.5	62.5	64.0	66.5	70.6	66.0	62.6
	29	62.0	60.0	58.6	62.5	68.0	69.5	67.5	64.2
	30	63.5	61.5	61.2	66.0	71.8	72.0	72.5	67.0
	31	56.5	54.5	53.0	58.0	61.2	65.0	64.4	59.8
Hourly means .		54.68	53.32	53.21	57.18	59.72	61.02	59.53	56.52

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
June	1	56.0	54.0	56.0	63.0	66.0	68.6	69.0	[illegible]
	2	64.0	62.0	63.5	67.1	67.8	68.7	65.5	[illegible]
	3	62.6	56.5	51.0	54.7	57.5	59.7	58.5	[illegible]
	4	56.0	53.5	53.6	56.6	62.6	63.3	58.5	[illegible]
	5	56.5	55.5	57.0	61.5	65.5	71.0	68.5	[illegible]
	6	64.5	66.0	66.4	72.0	76.0	75.2	73.0	[illegible]
	7	68.0	67.0	66.0	68.5	69.5	71.3	70.0	[illegible]
	8	64.8	63.8	61.5	68.5	73.4	72.5	72.0	[illegible]
	9	67.5	66.0	66.4	68.1	73.0	69.5	65.5	[illegible]
	10	57.0	54.6	52.2	57.5	62.6	61.5	59.2	[illegible]
	11	59.0	57.5	58.5	59.5	60.5	59.4	57.6	[illegible]
	12	57.6	57.9	59.2	61.5	65.2	66.5	65.8	[illegible]
	13	58.0	55.0	56.2	63.5	69.0	71.3	71.0	[illegible]
	14	61.5	60.0	59.5	68.5	74.0	73.3	69.8	[illegible]
	15	61.3	63.5	64.0	72.0	78.3	78.0	76.0	[illegible]
	16	70.8	69.0	68.9	74.5	74.0	74.5	76.0	[illegible]
	17	69.5	69.0	69.0	72.0	74.8	73.7	75.9	[illegible]
	18	71.8	71.5	70.0	75.5	77.5	76.0	77.0	[illegible]
	19	72.0	72.0	71.6	75.0	79.0	80.5	75.0	[illegible]
	20	69.8	69.0	70.0	74.5	79.5	80.0	76.0	[illegible]
	21	70.2	69.5	70.0	73.8	75.0	66.5	74.7	[illegible]
	22	65.0	63.5	63.2	63.5	66.9	68.9	64.5	[illegible]
	23	61.5	61.0	61.0	61.8	64.8	66.9	70.4	[illegible]
	24	60.0	61.0	62.0	64.8	69.7	71.0	62.5	[illegible]
	25	61.2	61.2	61.2	67.4	71.4	71.0	69.9	[illegible]
	26	66.0	62.7	62.1	65.5	67.8	70.0	66.0	[illegible]
	27	59.6	60.5	61.0	68.8	71.5	71.8	70.0	[illegible]
	28	64.0	64.5	65.0	68.6	73.0	76.0	72.5	[illegible]
	29	66.0	65.0	64.5	70.9	75.5	73.5	69.6	[illegible]
	30	64.0	63.0	62.6	68.0	72.8	73.5	71.8	[illegible]
Hourly means .		63.52	62.51	62.43	66.90	70.47	70.79	69.06	[illegible]

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
July	1	70.8	70.0	69.8	73.5	78.0	79.5	77.4	76.5
	2	73.0	71.5	73.5	76.8	80.3	80.0	79.4	76.5
	3	73.5	71.0	71.3	77.2	80.6	81.0	79.4	75.2
	4	73.0	72.5	73.5	78.5	80.6	78.5	80.5	75.0
	5	72.5	71.0	71.5	76.2	79.5	80.6	82.0	71.6
	6	69.5	69.9	70.0	73.8	77.0	81.5	77.9	75.2
	7	73.0	73.0	72.4	76.0	79.0	80.2	77.8	75.0
	8	74.0	72.5	72.5	74.4	76.8	80.5	77.2	74.5
	9	74.0	72.6	71.5	74.8	79.5	80.0	79.0	75.5
	10	74.0	73.0	74.0	74.0	75.5	75.5	74.5	73.0
	11	71.0	70.0	71.0	72.6	77.6	77.5	76.6	73.6
	12	71.8	69.5	69.5	76.5	81.0	80.7	79.0	73.0
	13	72.0	70.0	69.3	75.9	80.5	78.5	81.0	75.0
	14	75.5	73.0	72.5	77.2	77.1	81.8	82.0	76.8
	15	76.0	74.0	73.5	79.0	85.4	83.4	83.5	79.0
	16	77.0	76.0	75.6	80.2	79.5	78.5	75.0	73.8
	17	74.5	74.0	70.0	72.6	74.6	76.0	75.3	72.9
	18	71.0	69.0	68.4	75.0	78.5	79.5	76.6	75.6
	19	74.0	72.5	71.6	76.3	81.0	80.5	81.5	75.0
	20	74.5	74.5	74.3	74.6	78.0	78.6	78.5	77.3
	21	74.3	74.6	74.5	77.0	80.4	78.0	78.0	76.5
	22	74.5	73.0	73.4	78.4	80.0	78.5	71.5	71.5
	23	70.5	69.5	69.7	76.5	79.2	80.4	78.0	76.0
	24	75.0	75.6	75.5	76.0	76.5	73.0	74.5	74.8
	25	75.0	73.5	72.0	74.5	76.5	79.2	78.5	74.6
	26	72.5	72.5	71.2	72.5	71.5	73.5	72.3	71.8
	27	71.5	71.0	69.0	69.7	67.8	68.2	66.2	63.5
	28	61.4	62.0	63.0	70.0	69.7	72.6	73.5	69.0
	29	66.0	64.5	64.0	70.5	76.0	78.5	75.5	72.5
	30	69.0	67.2	67.2	73.5	79.5	78.4	78.0	72.0
	31	69.0	67.0	70.0	75.5	79.0	80.7	70.0	72.3
Hourly means .		72.33	71.29	71.14	75.14	77.94	78.49	77.10	74.02

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	
August	1	71.0	70.0	71.0	76.0	82.0	80.4	78.6	[illegible]
	2	75.5	73.0	73.5	75.7	78.5	79.5	77.5	[illegible]
	3	73.5	72.5	72.5	75.7	78.0	79.6	76.5	[illegible]
	4	74.5	72.5	72.0	73.7	79.0	78.2	74.5	[illegible]
	5	71.5	71.5	71.3	73.8	76.3	77.5	71.7	[illegible]
	6	69.4	66.0	66.0	73.2	77.0	75.5	75.0	[illegible]
	7	70.5	70.5	70.5	75.0	77.0	70.0	73.0	[illegible]
	8	70.0	69.0	71.2	74.5	79.0	80.0	78.2	[illegible]
	9	71.6	68.0	67.5	71.5	76.0	78.0	75.5	[illegible]
	10	66.0	64.5	64.0	68.5	69.0	71.2	71.4	[illegible]
	11	68.2	67.5	69.5	75.4	76.5	76.8	76.0	[illegible]
	12	72.4	67.0	63.5	64.4	65.0	65.5	64.0	[illegible]
	13	59.5	59.0	56.5	61.2	64.8	61.5	63.6	[illegible]
	14	59.0	56.2	55.5	61.5	66.9	68.6	70.5	[illegible]
	15	61.5	59.0	59.5	67.2	75.5	71.5	70.9	[illegible]
	16	66.0	62.6	62.3	69.9	72.0	72.5	71.8	[illegible]
	17	68.0	63.5	59.5	66.0	74.5	76.2	63.5	[illegible]
	18	71.0	70.6	70.0	73.4	77.2	75.0	73.2	[illegible]
	19	72.0	71.8	71.5	74.0	78.5	78.4	76.3	[illegible]
	20	73.2	71.6	72.0	73.6	78.5	78.8	78.0	[illegible]
	21	73.0	71.5	70.5	70.5	73.5	75.5	72.6	[illegible]
	22	66.2	62.0	64.8	72.0	73.4	72.5	72.5	[illegible]
	23	66.5	63.0	62.5	69.4	71.2	71.2	70.5	[illegible]
	24	66.5	65.0	64.6	67.3	73.3	74.0	69.2	[illegible]
	25	68.5	69.0	67.5	69.0	73.5	74.0	71.5	[illegible]
	26	65.0	64.5	64.5	68.8	65.6	77.3	74.5	[illegible]
	27	69.8	67.5	68.0	72.3	76.9	78.5	74.3	[illegible]
	28	70.5	69.0	68.2	69.5	72.5	71.0	71.0	[illegible]
	29	70.5	70.6	71.0	72.5	76.8	79.0	77.8	[illegible]
	30	73.5	72.5	70.2	76.5	80.0	89.2	76.2	[illegible]
	31	73.2	72.0	71.5	77.3	80.8	81.5	78.6	[illegible]
Hourly means .		69.27	67.51	66.86	71.59	74.80	75.45	73.17	[illegible]

Mean time.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	°	°	°	°	°	°	°	°
September 1	73.4	72.5	71.5	74.6	76.6	76.5	73.8	72.5
2	72.5	72.5	70.0	71.5	75.6	75.4	73.2	72.0
3	71.0	71.0	71.5	69.8	74.5	76.0	75.0	74.0
4	68.3	68.5	69.0	68.5	72.6	73.0	72.5	70.5
5	68.7	67.5	65.0	66.0	66.3	68.0	67.5	63.6
6	63.2	61.2	60.5	66.0	73.2	74.8	72.0	67.6
7	67.5	66.9	66.5	68.8	70.6	69.4	66.6	63.5
8	61.0	59.5	57.5	62.5	68.9	69.6	67.2	63.3
9	63.0	65.4	66.6	70.5	75.5	78.0	76.0	73.3
10	71.5	69.6	69.9	75.4	79.5	78.0	77.0	73.8
11	72.0	71.5	71.5	76.6	79.2	80.2	78.6	73.3
12	72.0	71.5	70.5	75.5	82.5	82.0	74.2	72.5
13	72.2	71.0	71.0	76.7	78:6	71.2	73.5	73.6
14	73.0	72.2	69.0	67.2	67.4	65.0	62.4	62.8
15	60.0	59.0	58.5	61.5	67.0	67.0	66.2	65.9
16	65.7	65.3	64.0	66.2	71.2	62.2	56.5	52.0
17	49.5	47.0	46.5	48.0	50.6	52.0	51.3	49.0
18	47.5	43.0	43.4	52.5	57.0	58.0	51.6	48.0
19	46.5	45.6	45.0	53.8	59.2	61.0	58.0	56.5
20	53.2	52.5	54.0	61.5	61.5	64.5	63.0	63.0
21	61.5	57.0	55.0	55.5	60.5	61.5	57.2	52.2
22	57.9	53.5	54.5	61.1	63.6	65.0	64.0	64.0
23	64.5	63.8	67.2	72.2	75.9	77.5	70.0	63.8
24	58.0	56.2	54.0	55.5	54.5	53.5	52.0	53.0
25	53.0	52.8	53.0	57.0	67.0	71.0	71.0	66.5
26	59.5	55.0	54.0	53.5	55.0	56.5	55.5	55.5
27	55.2	55.0	55.0	57.0	59.8	61.7	61.2	60 8
28	58.5	58.0	59.5	62.1	69.3	72.0	64.0	57.0
29	55.0	54.0	50.0	52.4	56.4	59.0	53.6	51.2
30	50.0	46.5	45.4	53.5	61.0	60.5	56.9	54.3
Hourly means.	62.16	60.83	60.30	63.76	67.68	68.00	65.38	62.97

Mean time.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	°	°	°	°	°	°	°	°
October 1	54.5	54.2	50.2	57.0	67.0	66.0	63.7	58.5
2	57.2	56.5	57.8	61.6	62.5	62.0	60.3	58.2
3	59.5	59.2	58.9	61.0	62.5	61.5	59.5	58.9
4	58.0	56.0	55.2	55.6	59.8	57.6	56.0	53.8
5	52.5	52.8	53.2	56.2	60.5	63.9	60.0	57.0
6	56.6	55.6	53.8	56.0	56.2	60.5	56.2	52.0
7	50.0	51.5	52.9	58.0	64.6	66.4	63.0	62.5
8	64.5	64.5	66.0	68.3	56.0	54.9	46.8	42.5
9	39.0	37.8	36.2	42.3	48.5	48.0	46.0	43.5
10	34.6	41.0	42.0	49.6	52.4	55.6	55.5	55.8
11	56.4	57.0	57.0	58.4	63.9	65.6	61.2	56.0
12	54.2	50.5	49.0	55.2	57.2	58.5	56.3	50.5
13	48.0	45.6	43.5	51.2	57.0	61.0	55.6	53.1
14	52.5	51.0	55.0	57.5	59.3	56.0	55.9	56.4
15	58.0	57.0	56.8	59.3	61.7	61.4	59.9	58.9
16	58.0	57.5	54.5	52.7	54.5	56.8	52.0	50.5
17	50.5	48.5	45.0	40.4	40.2	41.3	38.3	35.2
18	31.8	31.0	29.8	35.5	42.8	47.2	43.0	42.0
19	40.5	43.0	45.5	48.5	56.6	57.6	53.5	50.5
20	50.0	50.0	43.2	47.0	48.5	47.5	48.0	46.2
21	46.8	46.0	45.3	46.3	48.5	47.5	46.2	46.0
22	44.3	44.0	42.5	46.6	47.8	42.5	39.0	38.0
23	36.0	34.0	32.5	35.5	40.5	42.5	38.2	35.0
24	33.9	33.0	31.0	38.0	45.5	49.0	43.5	40.5
25	40.0	39.8	38.8	44.0	49.5	52.6	52.0	51.5
26	46.0	42.5	41.8	50.5	56.9	56.2	51.0	45.7
27	42.5	40.0	39.0	46.5	56.5	59.4	54.5	54.3
28	54.0	53.8	55.0	57.2	56.8	52.5	47.5	44.8
29	43.5	41.5	38.5	42.5	48.0	50.8	54.2	38.9
30	37.0	36.2	34.4	41.8	51.4	51.0	47.3	46.0
31	43.6	43.5	45.5	52.5	57.6	58.6	58.5	58.5
Hourly means.	48.19	47.56	46.77	50.73	54.54	55.22	52.34	49.72

Mean time.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	°	°	°	°	°	°	°	°
November 1	58.5	50.2	43.0	38.5	40.9	43.2	41.4	39.0
2	37.0	36.5	36.0	37.0	37.5	39.0	37.0	36.2
3	34.5	32.5	30.5	36.6	43.0	45.8	42.0	39.5
4	37.8	36.0	35.0	41.4	53.0	56.0	48.8	48.3
5	49.0	49.0	48.3	50.4	50.5	48.7	43.0	41.5
6	39.5	36.8	36.2	39.2	41.3	43.8	40.5	35.0
7	34.0	33.2	30.6	38.1	48.0	48.4	46.3	44.2
8	45.0	45.0	45.3	49.2	59.5	61.0	55.9	56.4
9	55.4	53.8	52.0	55.7	63.8	64.2	58.5	56.5
10	54.0	54.5	55.5	59.9	64.5	65.3	60.6	59.8
11	58.0	49.0	42.6	39.5	40.0	40.0	36.6	34.6
12	34.0	32.0	31.5	33.8	38.5	40.0	37.8	35.5
13	33.5	31.2	28.5	35.5	45.4	47.3	42.0	37.6
14	35.8	33.2	31.2	36.0	49.8	50.5	46.4	39.5
15	38.0	37.0	36.0	42.0	52.0	53.0	45.8	43.5
16	37.5	36.5	44.2	44.5	46.5	46.6	44.5	45.0
17	45.5	44.3	43.0	44.0	46.5	49.8	51.0	51.6
18	51.4	49.3	44.9	39.3	41.7	42.6	39.5	36.8
19	34.2	32.0	31.5	35.0	47.4	47.5	43.6	40.2
20	40.2	40.0	40.0	40.5	36.5	35.0	32.9	33.0
21	32.0	32.0	34.2	35.2	38.3	35.5	35.0	34.0
22	35.0	34.8	34.5	35.6	37.0	34.3	32.2	31.8
23	30.0	29.0	28.8	33.0	38.0	39.0	35.9	33.0
24	32.6	32.0	30.5	36.2	42.5	43.5	39.8	34.5
25	32.8	30.0	30.2	34.9	42.6	43.6	42.5	42.1
26	43.0	43.5	43.8	45.5	50.0	46.8	43.5	40.5
27	34.5	34.0	31.5	35.0	39.0	40.5	37.5	32.7
28	30.5	27.0	27.5	30.5	43.5	45.4	42.0	40.5
29	39.4	38.5	38.0	37.5	39.0	41.5	38.5	34.5
30	31.6	34.5	33.8	34.8	44.3	42.1	37.5	36.0
Hourly means.	39.89	38.24	37.29	39.81	45.35	46.00	42.62	40.44

Mean time.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	°	°	°	°	°	°	°	°
December 1	34.5	32.5	29.5	30.0	32.8	33.0	30.2	28.5
2	27.5	27.0	26.0	29.5	32.5	34.0	32.6	29.0
3	25.8	24.2	25.9	28.1	33.0	34.4	30.0	29.0
4	28.5	28.2	29.5	30.3	32.0	31.0	30.2	31.5
5	31.2	31.4	31.3	32.0	34.3	37.2	34.5	35.0
6	32.5	30.0	29.5	32.6	39.1	39.0	36.5	35.8
7	36.8	36.0	34.5	37.5	41.9	37.5	36.0	36.2
8	34.4	32.6	32.5	33.5	34.0	33.7	29.9	25.6
9	27.5	25.6	28.3	. .	30.0	31.0	23.5	22.5
10	21.5	21.5	26.0	26.5	34.5	35.5	29.8	25.5
11	24.6	24.6	21.8	22.5	23.0	22.0	22.3	21.2
12	19.8	19.8	16.0	18.0	21.5	22.3	18.5	17.5
13	15.5	15.5	15.0	20.0	28.5	28.5	25.0	20.8
14	19.8	18.0	17.0	22.0	26.5	27.8	27.0	25.0
15	25.2	24.0	28.0	30.8	32.5	32.6	29.5	28.5
16	28.5	30.5	30.5	31.6	33.6	34.3	33.6	33.5
17	33.0	32.0	31.0	31.5	33.0	38.0	38.5	36.9
18	38.0	36.9	37.0	36.0	38.0	36.0	35.0	32.5
19	27.0	24.0	27.0	27.6	33.0	. .	31.0	28.0
20	29.0	31.0	32.0	36.0	41.5	47.8	46.2	44.0
21	35.6	35.3	36.0	40.0	41.5	49.5	39.5	32.0
22	35.0	34.5	32.0	31.0	36.5	40.0	35.2	33.0
23	32.0	31.0	30.0	21.5	24.0	23.0	19.8	18.5
24	15.5	15.5	18.6	21.0	20.5	21.0	18.5	15.0
25	15.0	14.0	12.0	17.0	24.0	29.0	27.2	21.0
26	21.0	19.0	19.3	23.8	29.0	33.0	27.7	26.5
27	26.4	26.8	29.5	29.6	31.9	33.6	33.0	32.0
28	27.5	26.5	23.0	25.3	29.6	32.0	30.0	30.0
29	30.0	30.0	30.2	30.5	32.5	32.7	33.0	32.6
30	33.0	32.2	31.6	31.5	31.8	31.0	29.2	29.5
31	27.8	29.3	29.5	30.5	32.5	34.0	33.0	33.0
Hourly means.	27.72	27.08	27.10	28.59	31.90	33.15	30.51	28.70

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
January	1	32.0	33.5	34.0	39.0	50.0	64.5	30.0	29.5
	2	29.0	31.0	29.0	53.5	49.5	38.0	35.0	35.0
	3	33.5	30.0	27.0	41.4	83.0	72.0	38.0	39.0
	4	38.5	38.0	37.5	43.2	93.5	78.5	42.0	43.0
	5	38.0	37.6	37.0	45.0	63.7	71.5	34.0	27.0
	6	26.0	26.0	26.0	37.2	40.0	35.0	31.5	31.0
	7	31.0	30.5	31.5	37.5	60.0	42.5	37.6	36.5
	8	35.0	35.0	35.5	39.0	46.0	45.8	39.0	35.5
	9	34.0	32.5	31.5	34.5	82.0	56.0	15.0	8.5
	10	8.0	9.0	9.5	41.5	78.5	60.0	17.0	15.0
	11	12.0	10.0	12.0	28.0	87.0	69.5	28.0	24.5
	12	19.0	16.0	12.0	43.2	78.0	35.0	20.5	19.0
	13	18.0	14.0	12.5	38.5	73.5	60.5	18.5	12.0
	14	10.0	12.5	16.0	19.5	29.0	25.0	20.0	21.0
	15	22.0	24.0	24.0	35.0	79.6	45.5	22.5	24.5
	16	26.0	27.0	25.0	38.0	83.0	74.5	29.0	27.0
	17	17.0	12.5	9.6	40.8	77.0	59.0	17.0	16.5
	18	8.5	6.0	5.0	25.6	60.2	70.0	19.0	23.8
	19	24.5	23.0	16.0	50.2	83.0	67.5	23.0	17.6
	20	20.6	24.0	27.0	35.0	46.8	38.5	32.6	33.0
	21	33.0	33.0	33.0	42.0	46.0	46.8	34.0	32.5
	22	29.0	24.5	20.0	53.0	88.2	64.0	28.0	22.0
	23	24.5	25.6	32.0	34.0	36.0	38.0	35.0	36.5
	24	33.5	34.0	35.0	56.0	88.0	82.0	32.0	30.0
	25	26.0	22.0	20.5	56.0	85.0	80.0	30.0	26.5
	26	26.2	28.0	30.0	42.0	61.0	48.0	36.0	36.5
	27	37.0	35.5	34.5	37.2	54.5	44.0	35.0	32.0
	28	31.5	28.0	26.0	32.5	33.6	43.0	21.5	26.0
	29	26.0	26.0	25.6	32.0	52.0	39.0	. .	. .
	30	. .	. .	. .	35.0	94.0	79.0	9.0	8.5
	31	3.0	1.0	−3.0	53.0	93.0	76.0	17.6	11.0
Hourly means.		25.08	24.32	23.71	39.95	66.92	56.41	27.58	26.01

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.			°	°	°	°	°		
February	1	8.0	2.6	0.0	35.0	90.0	77.0	19.0	[illegible]
	2	10.0	6.5	4.0	32.0	60.2	72.0	24.0	[illegible]
	3	18.5	16.2	10.0	49.0	76.2	66.0	5.0	[illegible]
	4	− 3.0	2.0	8.0	28.0	55.0	49.2	23.0	[illegible]
	5	13.0	15.2	19.0	26.0	40.0	40.4	31.0	[illegible]
	6	27.2	25.5	26.5	39.0	76.0	67.0	21.0	[illegible]
	7	13.0	12.2	11.0	53.0	85.0	73.5	14.0	[illegible]
	8	6.0	−3.0	−6.0	38.0	83.2	52.5	23.0	[illegible]
	9	23.0	26.0	29.0	39.0	44.8	40.5	38.0	[illegible]
	10	38.0	29.0	23.0	33.0	80.0	62.0	21.0	[illegible]
	11	18.5	18.0	17.5	58.0	89.0	71.5	23.0	[illegible]
	12	9.0	5.5	3.0	51.5	88.0	81.0	26.0	[illegible]
	13	19.0	18.2	17.0	63.2	90.0	85.5	34.0	[illegible]
	14	31.0	31.8	23.2	63.5	77.0	79.0	23.5	[illegible]
	15	18.0	19.5	22.5	66.0	91.0	70.0	41.0	[illegible]
	16	36.5	31.8	32.0	45.0	59.0	58.0	27.5	[illegible]
	17	26.0	28.0	30.0	40.8	56.8	39.0	34.0	[illegible]
	18	30.5	28.6	25.0	64.0	85.0	82.0	26.5	[illegible]
	19	22.0	26.0	29.2	44.2	101.0	100.0	43.0	[illegible]
	20	28.0	26.5	25.0	64.0	97.0	81.6	47.0	[illegible]
	21	43.0	40.5	39.0	46.0	58.0	51.0	42.2	[illegible]
	22	31.0	24.6	22.0	42.5	82.5	79.0	22.0	[illegible]
	23	15.5	11.0	9.0	54.0	59.8	33.0	30.0	[illegible]
	24	18.5	20.0	20.0	23.5	33.0	32.2	20.0	[illegible]
	25	21.8	22.0	23.8	43.0	58.0	51.0	27.5	[illegible]
	26	24.5	24.5	24.5	36.0	48.0	45.0	26.0	[illegible]
	27	28.0	27.8	28.9	43.0	47.0	43.0	33.0	[illegible]
	28	33.4	30.0	25.5	47.5	68.0	45.0	27.0	[illegible]
	29	22.0	20.0	19.0	71.0	93.0	86.5	28.3	[illegible]
Hourly means.		21.03	20.22	19.33	46.16	71.43	62.53	27.71	[illegible]

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°		°	°	°		
March	1	18.0	19.2	22.0	34.5	42.6	33.0	27.8	27.8
	2	. . .	.	. . .	. . .	46.0	47.0	31.5	17.0
	3	13.0	11.0	7.0	59.0	68.8	77.6	16.0	5.5
	4	5.0	4.0	5.0	63.5	88.5	81.0	25.5	21.5
	5	16.4	12.6	9.5.	73.8	95.0	92.5	30.5	27.0
	6	26.5	28.0	29.0	51.5	77.0	61.0	39.0	37.0
	7	36.0	35.5	38.5	79.0	100.0	87.0	50.0	48.2
	8	48.0	48.0	47.0	56.0	109.0	90.0	56.5	45.5
	9	38.0	35.0	32.4	63.0	71.2	76.0	52.0	46.5
	10	45.0	40.5	36.0	73.2	111.5	110.0	64.5	57.4
	11	49.8	47.5	46.6	61.8	89.2	104.0	48.5	42.5
	12	40.0	40.0	39.0	48.0	53.0	50.0	40.0	40.0
	13	39.5	41.0	42.0	50.5	58.8	57.5	40.5	43.2
	14	38.8	42.0	39.6	49.7	70.2	60.0	51.5	49.0
	15	48.0	46.0	48.5	72.5	111.0	90.0	60.8	59.5
	16	58.0	57.0	54.0	99.0	104.0	98.5	69.5	63.2
	17	63.2	60.0	58.8	100.0	126.8	126.0	63.5	60.5
	18	60.5	58.0	53.5	85.0	113.0	87.5	54.0	44.0
	19	44.5	35.0	28.0	87.0	101.8	94.0	44.0	38.0
	20	35.2	34.0	35.0	37.5	41.0	35.0	32.5	32.0
	21	33.0	33.0	33.0	47.0	61.6	53.5	35.8	28.5
	22	28.0	27.2	26.0	79.0	97.5	73.0	44.0	31.5
	23	29.0	27.5	31.0	85.0	108.0	117.0	103.5	56.0
	24	54.0	55.5	57.5	69.5	91.0	89.2	51.0	46.0
	25	43.0	42.0	39.5	39.0	42.0	40.0	36.0	35.0
	26	33.0	32.0	32.0	43.0	68.0	53.0	39.0	36.0
	27	36.0	35.0	34.0	39.0	42.0	38.0	36.0	35.5
	28	35.7	35.5	35.0	61.2	45.8	45.6	44.5	53.0
	29	45.8	44.6	44.5	53.0	70.0	87.0	50.0	41.0
	30	35.0	31.5	29.9	67.5	63.0	60.5	49.5	40.5
	31	36.0	33.0	31.5	93.5	113.5	118.8	118.5	68.0
Hourly means.		38.06	36.37	35.51	64.04	80.03	75.30	48.90	42.78

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.									
April	1	. . .	. . .	. . .	97.0	121.0	123.0	122.8	[illegible]
	2	50.0	48.0	46.0	87.5	90.5	79.0	70.0	[illegible]
	3	41.0	33.0	31.0	81.0	104.5	103.0	50.0	[illegible]
	4	37.3	37.0	35.6	89.3	110.0	116.0	107.9	[illegible]
	5	43.5	36.0	28.0	81.5	90.0	96.0	43.0	[illegible]
	6	25.5	23.5	20.0	89.5	105.0	102.0	48.0	[illegible]
	7	40.0	35.5	35.3	41.0	45.0	44.0	42.0	[illegible]
	8	35.0	30.0	37.0	93.6	112.0	110.0	59.0	[illegible]
	9	31.0	30.0	29.5	45.0	65.0	45.0	30.0	[illegible]
	10	31.0	32.2	32.5	36.0	41.0	48.0	41.0	[illegible]
	11	37.0	27.0	28.8	90.0	110.5	107.0	60.5	[illegible]
	12	50.0	48.0	46.5	103.0	118.6	120.5	50.0	[illegible]
	13	27.5	27.0	25.0	83.0	98.0	110.0	43.5	[illegible]
	14	25.5	24.5	36.0	61.0	63.2	61.0	43.7	[illegible]
	15	41.5	41.9	45.0	58.0	82.0	87.5	63.3	[illegible]
	16	56.0	53.5	55.0	61.5	66.0	68.0	54.0	[illegible]
	17	57.0	55.0	56.0	78.0	89.0	116.0	79.0	[illegible]
	18	44.0	42.0	48.0	102.0	113.5	109.5	58.0	[illegible]
	19	40.0	41.5	44.5	59.0	59.0	58.5	50.0	[illegible]
	20	45.0	43.0	44.8	48.8	54.0	62.0	49.5	[illegible]
	21	45.0	44.8	46.0	54.8	68.5	58.0	59.5	[illegible]
	22	40.0	38.5	37.0	83.2	122.0	125.0	120.5	[illegible]
	23	49.0	46.0	48.0	107.0	121.5	125.5	117.0	[illegible]
	24	42.5	38.8	40.0	72.0	107.5	106.5	53.5	[illegible]
	25	40.5	44.0	44.5	51.0	52.5	51.0	45.0	[illegible]
	26	41.5	41.5	43.5	91.5	106.5	121.0	120.0	[illegible]
	27	46.0	44.0	44.0	101.0	120.0	119.0	114.0	[illegible]
	28	42.5	44.0	44.5	102.0	123.0	125.0	123.0	[illegible]
	29	56.0	52.0	48.5	64.8	63.8	72.5	72.5	[illegible]
	30	50.0	51.0	52.5	83.4	129.0	132.0	131.5	[illegible]
Hourly means.		41.75	36.52	40.45	76.51	91.74	93.38	70.02	[illegible]

Mean time.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	°	°	°	°	°	°	°	°
May 1	54.0	53.5	51.0	111.0	123.5	127.0	122.0	64.5
2	54.5	52.0	57.5	75.0	138.0	136.5	63.0	63.0
3	52.0	47.5	49.5	76.0	118.5	85.0	67.5	47.0
4	48.5	46.4	50.0	82.0	87.5	89.0	67.0	56.0
5	52.0	54.2	55.0	67.0	82.0	69.3	63.0	58.0
6	57.0	56.5	60.5	77.0	124.6	103.0	95.0	60.0
7	59.0	59.0	59.5	69.0	70.0	81.5	68.0	52.5
8	52.0	49.0	47.0	74.0	120.0	126.5	110.0	57.0
9	45.5	43.0	42.0	110.0	127.0	132.2	110.0	61.5
10	52.5	50.0	52.5	112.0	128.0	129.0	118.0	64.0
11	57.0	35.0	39.0	109.5	128.0	131.5	131.0	64.0
12	42.0	40.5	49.0	111.0	128.2	125.0	104.0	52.5
13	52.0	50.0	54.0	62.0	70.0	73.5	68.0	59.0
14	53.0	58.0	61.0	107.5	122.6	99.5	78.5	56.0
15	54.5	54.0	58.5	71.0	108.0	134.5	83.0	59.0
16	58.0	59.0	60.0	86.0	131.0	103.0	106.0	73.5
17	57.5	56.0	60.0	64.0	86.0	87.5	90.0	68.0
18	57.5	57.0	57.5	110.5	131.5	131.0	122.2	52.0
19	49.0	48.0	52.0	84.0	91.7	100.0	88.0	60.0
20	53.0	44.0	53.5	94.8	105.5	102.0	74.0	55.0
21	52.0	51.0	53.0	85.2	107.0	129.9	106.5	48.0
22	49.0	49.0	51.0	116.5	132.5	132.5	128.5	86.5
23	58.0	59.0	59.5	68.5	86.0	93.5	94.0	60.0
24	58.0	56.0	58.5	80.0	110.0	103.0	100.0	55.5
25	55.2	54.0	56.2	114.0	133.0	135.0	110.3	72.2
26	61.0	57.5	56.0	121.0	133.5	140.0	139.0	90.0
27	55.0	54.2	62.0	119.0	128.2	131.2	127.0	70.0
28	65.0	61.0	65.0	75.5	98.0	134.0	128.5	73.0
29	62.0	60.0	59.5	96.0	131.2	137.5	137.0	63.0
30	63.2	60.0	64.5	96.0	139.5	139.0	138.0	85.5
31	64.8	60.0	60.0	117.0	128.0	132.0	129.0	86.0
Hourly means .	54.96	52.72	55.30	91.68	111.36	115.29	102.13	63.62

Mean time.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	°	°	°	°	°	°	°	°
June 1	54.0	49.0	56.1	120.0	133.2	135.0	135.0	78.0
2	68.0	64.2	63.0	124.6	132.5	115.2	107.2	71.6
3	63.0	63.5	64.0	74.0	82.0	80.5	85.1	68.0
4	58.0	55.0	59.5	96.6	129.0	131.0	130.0	70.0
5	57.5	54.5	60.0	83.0	112.0	134.5	129.0	74.5
6	62.0	65.5	67.0	127.0	139.0	138.7	135.0	77.0
7	65.0	64.5	69.0	88.0	132.5	139.5	139.0	120.0
8	68.5	67.0	68.0	93.3	136.0	136.0	139.2	96.0
9	66.5	67.5	71.0	85.0	132.0	138.0	127.0	76.0
10	62.0	55.5	61.0	95.0	107.5	95.0	83.2	68.5
11	62.5	58.5	59.0	74.5	79.2	73.0	70.0	58.5
12	58.0	58.2	60.2	91.8	125.0	129.3	128.0	81.5
13	58.0	53.0	56.0	120.0	133.8	135.2	135.0	87.5
14	68.5	63.0	59.5	120.5	136.0	136.2	128.0	81.0
15	68.0	61.0	65.0	121.5	135.5	139.0	137.2	88.5
16	71.0	68.5	71.5	126.5	139.0	100.0	132.5	132.0
17	72.0	69.2	71.8	123.2	138.5	132.0	123.0	85.0
18	73.0	71.5	74.6	124.7	144.0	139.2	132.2	112.0
19	71.5	70.0	76.5	120.0	137.0	140.8	140.0	82.0
20	71.5	70.0	72.5	124.5	139.1	139.2	140.0	76.5
21	71.6	71.5	73.2	115.0	110.0	100.5	123.0	101.0
22	70.0	61.0	66.5	114.0	129.0	134.9	131.5	105.0
23	68.5	62.0	63.0	115.0	128.5	127.0	104.6	94.8
24	63.5	63.8	68.6	90.7	135.0	135.8	131.5	67.5
25	59.0	61.0	64.0	100.0	126.9	134.2	134.0	95.0
26	67.5	64.2	65.0	115.5	132.5	131.5	124.0	100.0
27	61.0	61.0	65.0	120.0	132.5	113.5	104.0	92.0
28	64.0	65.0	67.0	115.5	133.0	140.0	140.0	100.0
29	66.2	63.0	67.0	115.5	133.8	133.9	133.5	85.2
30	77.0	62.5	66.5	115.0	128.0	131.0	103.0	78.0
Hourly means .	66.23	62.80	65.63	108.33	127.73	126.32	123.49	86.75

Mean time.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	°	°	°	°	°	°	°	°
July 1	71.5	70.0	72.0	122.0	136.0	138.1	138.2	95.0
2	75.0	73.0	78.0	125.0	144.0	145.0	142.0	111.5
3	74.6	71.0	71.8	125.0	141.5	142.5	141.0	117.5
4	80.0	72.5	77.5	137.8	141.0	142.2	142.0	115.0
5	75.5	70.0	74.0	126.0	141.5	142.0	121.0	94.5
6	72.0	70.0	71.0	120.0	136.0	150.0	142.5	90.5
7	75.0	71.5	75.0	124.5	138.9	142.1	142.0	89.0
8	77.5	72.0	75.5	130.0	142.2	142.2	139.5	103.6
9	76.6	75.5	76.0	110.0	142.0	141.0	128.0	90.5
10	72.0	73.0	77.5	94.0	103.0	110.0	121.0	86.0
11	69.0	68.0	70.0	123.0	142.2	138.5	132.0	91.5
12	71.0	71.0	71.5	125.0	142.0	143.5	142.0	100.0
13	72.0	68.5	69.5	127.0	142.9	144.5	144.5	115.0
14	80.0	73.5	73.5	131.0	145.9	147.6	143.5	114.5
15	76.9	76.0	76.8	128.0	147.3	146.0	145.0	113.5
16	81.0	78.0	80.5	131.0	149.6	145.0	145.2	105.0
17	80.5	78.0	73.0	122.0	138.0	140.5	138.9	107.0
18	75.0	75.0	75.2	124.7	140.0	143.8	139.5	102.5
19	76.5	73.0	74.0	123.0	142.2	143.0	141.0	90.5
20	78.5	76.0	79.0	93.8	118.0	121.0	122.8	93.9
21	75.0	77.0	77.2	107.0	145.0	145.0	125.0	91.5
22	76.0	71.0	77.0	123.5	145.0	144.0	99.5	86.5
23	69.5	68.0	72.0	111.0	138.0	143.0	143.0	104.5
24	76.5	75.0	77.0	90.6	102.0	82.0	101.0	76.2
25	74.5	74.0	74.5	110.0	134.0	145.7	137.0	107.5
26	72.0	70.0	74.0	95.2	115.0	124.8	109.5	72.0
27	72.0	72.0	70.0	73.0	89.5	84.0	80.2	72.0
28	62.5	61.0	63.0	110.0	132.0	133.5	127.0	84.5
29	65.0	62.0	64.8	103.0	129.5	130.5	123.0	84.0
30	69.5	63.0	68.0	111.0	141.0	138.8	132.5	81.5
31	70.5	66.0	71.5	115.5	139.7	148.5	138.0	85.0
Hourly means .	73.97	71.47	73.56	115.89	134.98	136.40	131.53	95.86

Mean time.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	°	°	°	°	°	°	°	°
August 1	69.0	68.0	72.5	104.0	139.5	145.0	138.0	87.5
2	75.0	74.0	74.0	84.0	117.0	134.0	99.5	82.5
3	73.0	70.0	74.5	98.5	145.0	139.0	137.5	84.0
4	75.0	70.0	71.5	83.8	148.7	143.0	141.5	82.0
5	76.0	69.0	73.0	95.2	146.0	145.0	123.2	73.5
6	68.0	66.0	65.5	108.0	135.0	140.0	132.5	86.0
7	76.0	74.5	72.0	126.8	. .	115.0	138.0	95.0
8	69.0	68.0	72.0	95.0	137.0	145.0	133.0	84.0
9	70.0	68.0	67.5	117.0	137.0	140.2	138.0	83.5
10	68.0	64.5	65.0	120.0	134.0	139.5	111.0	77.5
11	68.0	66.5	72.0	109.0	134.0	134.0	113.0	82.0
12	73.0	72.0	64.0	120.0	127.5	134.0	125.0	82.5
13	63.0	61.5	57.0	112.2	128.0	128.9	128.5	78.2
14	58.0	55.0	52.5	108.2	131.5	134.5	134.5	90.0
15	59.5	57.0	58.2	114.0	133.0	133.6	130.0	85.0
16	72.0	64.0	65.0	120.5	136.0	137.5	121.5	79.5
17	69.0	62.5	61.0	112.0	131.0	135.2	135.0	81.0
18	69.0	70.0	71.0	119.0	134.6	137.2	132.0	84.0
19	73.0	72.5	72.0	96.2	135.0	139.9	140.0	84.0
20	72.5	72.0	73.5	96.4	125.0	131.0	105.0	79.9
21	73.2	70.5	70.0	79.5	127.2	132.5	132.5	78.0
22	63.0	64.0	65.0	120.0	140.9	141.0	90.8	79.0
23	67.5	61.5	60.0	111.5	123.5	121.0	90.0	73.0
24	66.0	64.5	65.0	86.5	134.5	139.2	139.2	73.0
25	68.0	67.0	66.5	89.6	136.0	139.9	104.5	84.0
26	63.0	64.0	66.0	83.0	132.6	139.1	139.0	80.0
27	69.0	65.0	69.0	94.9	134.9	140.9	140.9	81.0
28	71.5	71.0	69.0	81.5	101.0	114.0	88.0	73.2
29	70.0	70.2	70.0	101.0	135.0	135.5	129.0	81.0
30	73.0	70.2	67.0	123.5	141.0	141.5	141.2	80.0
31	70.0	69.0	62.0	126.0	137.0	140.7	136.0	81.0
Hourly means .	69.36	67.16	67.20	104.73	133.28	136.03	125.41	81.45

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
January	1	32.0	33.5	34.0	39.0	50.0	64.5	30.0	29.5
	2	29.0	31.0	29.0	53.5	49.5	38.0	35.0	35.0
	3	33.5	30.0	27.0	41.4	83.0	72.0	38.0	39.0
	4	38.5	38.0	37.5	43.2	93.5	78.5	42.0	43.0
	5	38.0	37.6	37.0	45.0	63.7	71.5	34.0	27.0
	6	26.0	26.0	26.0	37.2	40.0	35.0	31.5	31.0
	7	31.0	30.5	31.5	37.5	60.0	42.5	37.6	36.5
	8	35.0	35.0	35.5	39.0	46.0	45.8	39.0	35.5
	9	34.0	32.5	31.5	34.5	82.0	56.0	15.0	8.5
	10	8.0	9.0	9.5	41.5	78.5	60.0	17.0	15.0
	11	12.0	10.0	12.0	28.0	87.0	69.5	28.0	24.5
	12	19.0	16.0	12.0	43.2	78.0	35.0	20.5	19.0
	13	18.0	14.0	12.5	38.5	73.5	60.5	18.5	12.0
	14	10.0	12.5	16.0	19.5	29.0	25.0	20.0	21.0
	15	22.0	24.0	24.0	35.0	79.6	45.5	22.5	24.5
	16	26.0	27.0	25.0	38.0	83.0	74.5	29.0	27.0
	17	17.0	12.5	9.6	40.8	77.0	50.0	17.0	16.5
	18	8.5	6.0	5.0	25.6	60.2	70.0	19.0	23.8
	19	24.5	23.0	16.0	50.2	83.0	67.5	23.0	17.6
	20	20.6	24.0	27.0	35.0	46.8	38.5	32.6	33.0
	21	33.0	33.0	33.0	42.0	46.0	46.8	34.0	32.5
	22	29.0	24.5	20.0	53.0	88.2	64.0	28.0	22.0
	23	24.5	25.6	32.0	34.0	36.0	38.0	35.0	36.5
	24	33.5	34.0	35.0	56.0	88.0	82.0	32.0	30.0
	25	26.0	22.0	20.5	56.0	85.0	80.0	30.0	26.5
	26	26.2	28.0	30.0	42.0	61.0	48.0	36.0	36.5
	27	37.0	35.5	34.5	37.2	54.5	44.0	35.0	32.0
	28	31.5	28.0	26.0	32.5	33.6	43.0	21.5	26.0
	29	26.0	26.0	25.6	32.0	52.0	39.0	. .	. .
	30	. .	. .	. .	35.0	94.0	79.0	9.0	8.5
	31	3.0	1.0	−3.0	53.0	93.0	76.0	17.6	11.0
Hourly means.		25.08	24.32	23.71	39.95	66.92	56.41	27.58	26.01

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°		
February	1	8.0	2.6	0.0	35.0	90.0	77.0	19.0	[illegible]
	2	10.0	6.5	4.0	32.0	60.2	72.0	24.0	[illegible]
	3	18.5	16.2	10.0	49.0	76.2	66.0	8.0	[illegible]
	4	− 3.0	2.0	8.0	28.0	55.0	49.2	23.0	[illegible]
	5	13.0	15.2	19.0	26.0	40.0	40.4	31.0	[illegible]
	6	27.2	25.5	26.5	39.0	76.0	67.0	21.0	[illegible]
	7	13.0	12.2	11.0	53.0	85.0	73.5	14.0	[illegible]
	8	6.0	−3.0	−6.0	38.0	83.2	52.5	23.0	[illegible]
	9	23.0	26.0	29.0	39.0	44.8	40.5	35.0	[illegible]
	10	38.0	29.0	23.0	33.0	80.0	62.0	21.0	[illegible]
	11	18.5	18.0	17.5	58.0	89.0	71.5	23.0	[illegible]
	12	9.0	5.5	3.0	51.5	88.0	81.0	26.0	[illegible]
	13	19.0	18.2	17.0	63.2	90.0	85.5	34.0	[illegible]
	14	31.0	31.8	23.2	63.5	77.0	79.0	23.5	[illegible]
	15	18.0	19.5	22.5	66.0	91.0	70.0	41.0	[illegible]
	16	36.5	31.8	32.0	45.0	59.0	58.0	27.5	[illegible]
	17	26.0	28.0	30.0	40.8	56.8	39.0	34.0	[illegible]
	18	30.5	28.6	25.0	64.0	85.0	82.0	26.5	[illegible]
	19	22.0	26.0	29.2	44.2	101.0	100.0	43.0	[illegible]
	20	28.0	26.5	25.0	64.0	97.0	81.6	47.0	[illegible]
	21	43.0	40.5	39.0	46.0	58.0	51.0	42.2	[illegible]
	22	31.0	24.6	22.0	42.5	82.5	79.0	22.0	[illegible]
	23	15.5	11.0	9.0	54.0	59.8	33.0	30.0	[illegible]
	24	18.5	20.0	20.0	23.5	33.0	32.2	20.0	[illegible]
	25	21.8	22.0	23.8	43.0	58.0	51.0	27.5	[illegible]
	26	24.5	24.5	24.5	36.0	48.0	45.0	26.0	[illegible]
	27	28.0	27.8	28.9	43.0	47.0	43.0	33.0	[illegible]
	28	33.4	30.0	25.5	47.5	68.0	45.0	27.0	[illegible]
	29	22.0	20.0	19.0	71.0	93.0	86.5	28.3	[illegible]
Hourly means.		21.03	20.22	19.33	46.16	71.43	62.53	27.71	[illegible]

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
March	1	18.0	19.2	22.0	34.5	42.6	33.0	27.8	27.8
	2	. .	. .	. .	. .	46.0	47.0	31.5	17.0
	3	13.0	11.0	7.0	59.0	68.8	77.6	16.0	5.5
	4	5.0	4.0	5.0	63.5	88.5	81.0	25.5	21.5
	5	16.4	12.6	9.5	73.8	95.0	92.5	30.5	27.0
	6	26.5	28.0	29.0	51.5	77.0	61.0	39.0	37.0
	7	36.0	35.5	38.5	79.0	100.0	87.0	50.0	48.2
	8	48.0	48.0	47.0	56.0	109.0	90.0	56.5	45.5
	9	38.0	35.0	32.4	63.0	71.2	76.0	52.0	46.5
	10	45.0	40.5	36.0	73.2	111.5	110.0	64.5	57.4
	11	49.8	47.5	46.6	61.8	89.2	104.0	48.5	42.5
	12	40.0	40.0	39.0	48.0	53.0	50.0	40.0	40.0
	13	39.5	41.0	42.0	50.5	58.8	57.5	40.5	43.2
	14	38.8	42.0	39.6	49.7	70.2	60.0	51.5	49.0
	15	48.0	46.0	48.5	72.5	111.0	90.0	60.8	59.5
	16	58.0	57.0	54.0	99.0	104.0	98.5	69.5	63.2
	17	63.2	60.0	58.8	100.0	126.8	126.0	63.5	60.5
	18	60.5	58.0	53.5	85.0	113.0	87.5	54.0	44.0
	19	44.5	35.0	28.0	87.0	101.8	94.0	44.0	38.0
	20	35.2	34.0	35.0	37.5	41.0	35.0	32.5	32.0
	21	33.0	33.0	33.0	47.0	61.6	53.5	35.8	28.5
	22	28.0	27.2	26.0	79.0	97.5	73.0	44.0	31.5
	23	29.0	27.5	31.0	85.0	108.0	117.0	103.5	56.0
	24	54.0	55.5	57.5	69.5	91.0	89.2	51.0	46.0
	25	43.0	42.0	39.5	39.0	42.0	40.0	36.0	35.0
	26	33.0	32.0	32.0	43.0	68.0	53.0	39.0	36.0
	27	36.0	35.0	34.0	39.0	42.0	38.0	36.0	35.5
	28	35.7	35.5	35.0	61.2	45.8	45.6	44.5	53.0
	29	45.8	44.6	44.5	53.0	70.0	87.0	50.0	41.0
	30	35.0	31.5	29.9	67.5	63.0	60.5	49.5	40.5
	31	36.0	33.0	31.5	93.5	113.5	118.8	118.5	68.0
Hourly means.		38.06	36.37	35.51	64.04	80.03	75.39	48.90	42.78

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.					°				
April	1	. .	. .	. .	97.0	121.0	123.0	122.8	53.0
	2	50.0	48.0	46.0	87.5	90.5	79.0	76.0	48.5
	3	41.0	33.0	31.0	81.0	104.5	103.0	50.0	41.0
	4	37.3	37.0	35.6	89.3	110.0	116.0	107.9	55.5
	5	43.5	36.0	28.0	81.5	90.0	96.0	43.0	20.5
	6	25.5	23.5	20.0	89.5	105.0	102.0	48.0	38.5
	7	40.0	35.5	35.3	41.0	45.0	44.0	42.0	39.5
	8	35.0	30.0	37.0	93.6	112.0	110.0	59.0	37.0
	9	31.0	30.0	29.5	45.0	65.0	45.0	30.0	20.5
	10	31.0	32.2	32.5	36.0	41.0	48.0	41.0	35.0
	11	37.0	27.0	28.8	90.0	110.5	107.0	60.5	45.0
	12	50.0	48.0	46.5	103.0	118.6	120.5	50.0	32.0
	13	27.5	27.0	25.0	83.0	98.0	110.0	43.5	31.0
	14	25.5	24.5	36.0	61.0	63.2	61.0	43.7	42.0
	15	41.5	41.9	45.0	58.0	82.0	87.5	63.3	55.0
	16	56.0	53.5	55.0	61.5	66.0	68.0	54.0	62.0
	17	57.0	55.0	56.0	78.0	89.0	116.0	79.0	53.0
	18	44.0	42.0	48.0	102.0	113.5	109.5	58.0	48.0
	19	40.0	41.5	44.5	59.0	59.0	58.5	50.0	47.0
	20	45.0	43.0	44.8	48.8	54.0	62.0	49.5	46.5
	21	45.0	44.8	46.0	54.8	68.5	58.0	59.5	42.5
	22	40.0	38.5	37.0	83.2	122.0	125.0	120.5	68.5
	23	49.0	46.0	48.0	107.0	121.5	125.5	117.0	48.5
	24	42.5	38.8	40.0	72.0	107.5	106.5	53.5	44.0
	25	40.5	44.0	44.5	51.0	52.5	51.0	45.0	41.6
	26	41.5	41.5	43.5	91.5	106.5	121.0	120.0	72.5
	27	46.0	44.0	44.0	101.0	120.0	119.0	114.0	74.0
	28	42.5	44.0	44.5	102.0	123.0	125.0	123.0	68.5
	29	56.0	52.0	48.5	64.8	63.8	72.5	72.5	51.5
	30	50.0	51.0	52.5	83.4	129.0	132.0	131.5	57.0
Hourly means.		41.75	36.52	40.45	76.51	91.74	93.38	70.92	47

Mean time.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	°	°	°	°	°	°	°	°
May 1	54.0	53.5	51.0	111.0	123.5	127.0	122.0	64.5
2	54.5	52.0	57.5	75.0	138.0	136.5	63.0	63.0
3	52.0	47.5	49.5	76.0	118.5	85.0	67.5	47.0
4	48.5	46.4	50.0	82.0	87.5	89.0	67.0	56.0
5	52.0	54.2	55.0	67.0	82.0	69.3	63.0	58.0
6	57.0	56.5	60.5	77.0	124.6	103.0	95.0	60.0
7	59.0	59.0	59.5	69.0	70.0	81.5	68.0	52.5
8	52.0	49.0	47.0	74.0	120.0	126.5	110.0	57.0
9	45.5	43.0	42.0	110.0	127.0	132.2	110.0	61.5
10	52.5	50.0	52.5	112.0	128.0	129.0	118.0	64.0
11	57.0	35.0	39.0	109.5	128.0	131.5	131.0	64.0
12	42.0	40.5	49.0	111.0	128.2	125.0	104.0	52.5
13	52.0	50.0	54.0	62.0	70.0	73.5	68.0	59.0
14	53.0	58.0	61.0	107.5	122.6	99.5	78.5	56.0
15	54.5	54.0	58.5	71.0	108.0	134.5	83.0	59.0
16	58.0	59.0	60.0	86.0	131.0	103.0	106.0	73.5
17	57.5	56.0	60.0	64.0	86.0	87.5	90.0	68.0
18	57.5	57.0	57.5	110.5	131.5	131.0	122.2	52.0
19	49.0	48.0	52.0	84.0	91.7	100.0	88.0	60.0
20	53.0	44.0	53.5	94.8	105.5	102.0	74.0	55.0
21	52.0	51.0	53.0	85.2	107.0	129.9	106.5	48.0
22	49.0	49.0	51.0	116.5	132.5	132.5	128.5	86.5
23	58.0	59.0	59.5	68.5	86.0	93.5	94.0	60.0
24	58.0	56.0	58.5	80.0	110.0	103.0	100.0	55.5
25	55.2	54.0	56.2	114.0	133.0	135.0	110.3	72.2
26	61.0	57.5	56.0	121.0	133.5	140.0	139.0	90.0
27	55.0	54.2	62.0	119.0	128.2	131.2	127.0	70.0
28	65.0	61.0	65.0	75.5	98.0	134.0	128.5	73.0
29	62.0	60.0	59.5	96.0	131.2	137.5	137.0	63.0
30	63.2	60.0	64.5	96.0	139.5	139.0	138.0	85.5
31	64.8	60.0	60.0	117.0	128.0	132.0	129.0	86.0
Hourly means .	54.96	52.72	55.30	91.68	111.36	115.29	102.13	63.62

Mean time.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	°	°	°	°	°	°	°	°
June 1	54.0	49.0	56.1	120.0	133.2	135.0	135.0	78.0
2	68.0	64.2	63.0	124.6	132.5	115.2	107.2	71.6
3	63.0	63.5	64.0	74.0	82.0	80.5	85.1	68.0
4	58.0	55.0	59.5	96.6	129.0	131.0	130.0	70.0
5	57.5	54.5	60.0	83.0	112.0	134.5	129.0	74.5
6	62.0	65.5	67.0	127.0	139.0	138.7	135.0	77.0
7	65.0	64.5	69.0	88.0	132.5	139.5	139.0	120.0
8	68.5	67.0	68.0	93.3	136.0	136.0	139.2	96.0
9	66.5	67.5	71.0	85.0	132.0	138.0	127.0	76.0
10	62.0	55.5	61.0	95.0	107.5	95.0	83.2	68.5
11	62.5	58.5	59.0	74.5	79.2	73.0	70.0	58.5
12	58.0	58.2	60.2	91.8	125.0	129.3	128.0	81.5
13	58.0	53.0	56.0	120.0	133.8	135.2	135.0	87.5
14	68.5	63.0	59.5	120.5	136.0	136.2	128.0	81.0
15	68.0	61.0	65.0	121.5	135.5	139.0	137.2	88.5
16	71.0	68.5	71.5	126.5	139.0	100.0	132.5	132.0
17	72.0	69.2	71.8	123.2	138.5	132.0	123.0	85.0
18	73.0	71.5	74.6	124.7	144.0	139.2	132.2	112.0
19	71.5	70.0	76.5	120.0	137.0	140.8	140.0	82.0
20	71.5	70.0	72.5	124.5	139.1	139.2	140.0	76.5
21	71.6	71.5	73.2	115.0	110.0	100.5	123.0	101.0
22	70.0	61.0	66.5	114.0	129.0	134.9	131.5	105.0
23	68.5	62.0	63.0	115.0	128.5	127.0	104.6	94.8
24	63.5	63.8	68.6	90.7	135.0	135.8	131.5	67.5
25	59.0	61.0	64.0	100.0	126.9	134.2	134.0	95.0
26	67.5	64.2	65.0	115.5	132.5	131.5	124.0	100.0
27	61.0	61.0	65.0	120.0	132.5	113.5	104.0	92.0
28	64.0	65.0	67.0	115.5	133.0	140.0	140.0	100.0
29	66.2	63.0	67.0	115.5	133.8	133.9	133.5	85.2
30	77.0	62.5	66.5	115.0	128.0	131.0	103.0	78.0
Hourly means .	66.23	62.80	65.63	108.33	127.73	126.32	123.49	86.75

Mean time.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	°	°	°	°	°	°	°	°
July 1	71.5	70.0	72.0	122.0	136.0	138.1	138.2	95.0
2	75.0	73.0	78.0	125.0	144.0	145.0	142.0	111.5
3	74.6	71.0	71.8	125.0	141.5	142.5	141.0	117.5
4	80.0	72.5	77.5	137.8	141.0	142.2	142.0	115.0
5	75.5	70.0	74.0	126.0	141.5	142.0	121.0	94.5
6	72.0	70.0	71.0	120.0	136.0	150.0	142.5	90.5
7	75.0	71.5	75.0	124.5	138.9	142.1	142.0	89.0
8	77.5	72.0	75.5	130.0	142.2	142.2	139.5	103.6
9	76.6	75.5	76.0	110.0	142.0	141.0	128.0	90.5
10	72.0	73.0	77.5	94.0	103.0	110.0	121.0	86.0
11	69.0	68.0	70.0	123.0	142.2	138.5	132.0	91.5
12	71.0	71.0	71.5	125.0	142.0	143.5	142.0	100.0
13	72.0	68.5	69.5	127.0	142.9	144.5	144.5	115.0
14	80.0	73.5	73.5	131.0	145.9	147.6	143.5	114.5
15	76.9	76.0	76.8	128.0	147.3	146.0	145.0	113.5
16	81.0	78.0	80.5	131.0	149.6	145.0	145.2	105.0
17	80.5	78.0	73.0	122.0	138.0	140.5	138.9	107.0
18	75.0	75.0	75.2	124.7	140.0	143.8	139.5	102.5
19	76.5	73.0	74.0	123.0	142.2	143.0	141.0	90.5
20	78.5	76.0	79.0	93.8	118.0	121.0	122.8	93.9
21	75.0	77.0	77.2	107.0	145.0	145.0	125.0	91.5
22	76.0	71.0	77.0	123.5	145.0	144.0	99.5	86.5
23	69.5	68.0	72.0	111.0	138.0	143.0	143.0	104.5
24	76.5	75.0	77.0	90.6	102.0	82.0	101.0	76.2
25	74.5	74.0	74.5	110.0	134.0	145.7	137.0	107.5
26	72.0	70.0	74.0	95.2	115.0	124.8	109.5	72.0
27	72.0	72.0	70.0	73.0	89.5	84.0	80.2	72.0
28	62.5	61.0	63.0	110.0	132.0	133.5	127.0	84.5
29	65.0	62.0	64.8	103.0	129.5	130.5	123.0	84.0
30	69.5	63.0	68.0	111.0	141.0	138.8	132.5	81.5
31	70.5	66.0	71.5	115.5	139.7	148.5	138.0	85.0
Hourly means .	73.97	71.47	73.56	115.89	134.98	136.40	131.53	95.86

Mean time.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	°	°	°	°	°	°	°	°
August 1	69.0	68.0	72.5	104.0	139.5	145.0	138.0	87.5
2	75.0	74.0	74.0	84.0	117.0	134.0	99.5	82.5
3	73.0	70.0	74.5	98.5	145.0	139.0	137.5	84.0
4	75.0	70.0	71.5	83.8	148.7	143.0	141.5	82.0
5	76.0	69.0	73.0	95.2	146.0	145.0	123.2	73.5
6	68.0	66.0	65.5	108.0	135.0	140.0	132.5	86.0
7	76.0	74.5	72.0	126.8	. .	115.0	138.0	95.0
8	69.0	68.0	72.0	95.0	137.0	145.0	133.0	84.0
9	70.0	68.0	67.5	117.0	137.0	140.2	138.0	83.5
10	68.0	64.5	65.0	120.0	134.0	139.5	111.0	77.5
11	68.0	66.5	72.0	109.0	134.0	134.0	113.0	82.0
12	73.0	72.0	64.0	120.0	127.5	134.0	125.0	82.5
13	63.0	61.5	57.0	112.2	128.0	128.9	128.5	78.2
14	58.0	55.0	52.5	108.2	131.5	134.5	134.5	90.0
15	59.5	57.0	58.2	114.0	133.0	133.6	130.0	85.0
16	72.0	64.0	65.0	120.5	136.0	137.5	121.5	79.5
17	69.0	62.5	61.0	112.0	131.0	135.2	135.0	81.0
18	69.0	70.0	71.0	119.0	134.6	137.2	132.0	84.0
19	73.0	72.5	72.0	96.2	135.0	139.9	140.0	84.0
20	72.5	72.0	73.5	96.4	125.0	131.0	105.0	79.9
21	73.2	70.5	70.0	79.5	127.2	132.5	132.5	78.0
22	63.0	64.0	65.0	120.0	140.9	141.0	90.8	79.0
23	67.5	61.5	60.0	111.5	123.5	121.0	90.0	73.0
24	66.0	64.5	65.0	86.5	134.5	139.2	139.2	73.0
25	68.0	67.0	66.5	89.6	136.0	139.9	104.5	84.0
26	63.0	64.0	66.0	83.0	132.6	139.1	139.0	80.0
27	69.0	65.0	69.0	94.9	134.9	140.9	140.9	81.0
28	71.5	71.0	69.0	81.5	101.0	114.0	88.0	73.2
29	70.0	70.2	70.0	101.0	135.0	135.5	129.0	81.0
30	73.0	70.2	67.0	123.5	141.0	141.5	141.2	80.0
31	70.0	69.0	62.0	126.0	137.0	140.7	136.0	81.0
Hourly means .	69.36	67.16	67.20	104.73	133.28	136.03	125.41	81.4

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
September	1	71.5	71.0	71.5	92.8	140.5	144.5	123.0	75.0
	2	72.0	71.0	69.5	94.2	131.0	131.2	115.0	74.0
	3	69.0	71.0	71.0	74.0	110.2	122.8	88.6	75.0
	4	68.5	68.0	68.4	76.8	113.0	116.0	77.0	73.8
	5	68.5	67.0	63.5	114.5	131.5	132.0	125.0	67.5
	6	58.0	60.5	61.0	115.2	134.0	137.0	127.8	70.5
	7	70 5	68.5	68.0	75.0	127.0	131.0	126.0	70.0
	8	61.5	57.0	53.5	105.2	128.0	134.5	134.0	67.0
	9	62.0	63.0	67.0	93 0	131.0	147.5	123.0	77.2
	10	69.0	68.0	68.0	125.0	141.0	138.2	125.0	75.5
	11	70.0	69.0	71.0	126.0	138.0	143.0	143.0	79.5
	12	72.5	68.0	68.5	122.0	139.0	141.5	136.0	70.0
	13	69.6	70.0	70.5	125.5	145.0	144.5	83.0	76.0
	14	72.0	71.0	69.5	82.0	89.6	89.6	66.8	62.0
	15	62.0	59.0	59.5	91.5	110.5	113.0	100.0	66.0
	16	66.0	66.0	66.3	88.0	132.6	132.0	121.5	58.0
	17	56.0	52.0	50.0	105.5	128.9	122.5	106.0	52.5
	18	44.0	44.0	38.0	105.0	126.0	129.2	111.0	50.0
	19	47.0	46.5	49.0	102.5	122.0	123.0	110.5	57.5
	20	53.0	52.0	49.5	81.0	122.9	122.5	73.0	63.0
	21	61.5	60.0	57.0	109.0	130.5	130.0	118.0	63.0
	22	50.0	54.9	55.0	86.5	91.0	85.0	73.8	65.5
	23	64.0	63.2	67.5	102.0	141.2	141.2	105.0	70.0
	24	64.5	58.0	57.0	73.0	73.2	70.0	60.0	52.6
	25	52.3	52.0	53.0	72.5	124.5	132.0	90.0	69.5
	26	68.0	57.5	53.5	63.0	83.5	83.0	63.6	63.0
	27	55.0	55.0	55.2	64.0	80.1	83.5	80.5	61.2
	28	59.2	58.4	60.0	101.0	122.2	129.0	118.0	59.5
	29	59.0	54.2	49.0	102.0	120.5	126.0	111.5	49.5
	30	44.5	43.0	42.5	99.8	122.5	124.0	107.5	54.0
Hourly means.		62.02	60.32	60.09	95.55	121.05	123.31	104.77	69.26

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	
October	1	54.0	53.4	51.0	100.0	124.0	127.5	113.0	61.5
	2	54.0	52.2	58.0	79.2	86.9	94.9	100.0	56.0
	3	58.0	58.6	58.0	74.2	87.0	77.5	71.0	58.5
	4	58.0	56.6	56.2	77.2	82.0	82.0	64.2	55.0
	5	52.0	52.2	52.8	70.0	98.9	120.0	119.5	55.0
	6	54.0	53.5	51.5	84.0	115.5	119.2	100.0	46.5
	7	46.2	51.0	54.3	76.0	115.0	117.0	87.0	63.5
	8	63.5	63.5	65.0	97.5	106.8	101.6	101.5	51.5
	9	43.5	35.0	31.0	86.0	102.8	73.2	45.0	41.0
	10	40.3	37.0	42.0	68.2	67.2	82.1	56.5	55.5
	11	55.8	56.0	56.5	69.5	119.5	120.5	104.0	56.0
	12	49.5	47.5	45.0	90.0	118.0	118.0	95.0	51.3
	13	46.0	46.0	38.0	88.6	115.0	117.0	97.5	50.5
	14	50.0	48.0	55.8	65.0	81.2	81.0	60.0	55.0
	15	57.5	58.0	56.5	65.5	71.5	75.5	68.0	60.0
	16	58.3	58.0	57.5	61.2	86.8	110.5	54.0	49.0
	17	49.5	49.0	47.5	70.9	93.2	97.0	90.0	55.0
	18	35.2	27.5	25.0	78.5	115.0	94.0	42.0	41.2
	19	40.0	43.0	46.0	90.5	105.5	65.0	57.0	53.5
	20	53.0	50.0	40.0	80.0	72.0	64.2	49.5	45.0
	21	47.5	47.0	46.5	55.0	63.1	51.5	45.0	45.5
	22	44.5	44.0	41.0	48.0	91.2	67.0	43.0	39.0
	23	35.0	32.5	32.0	81.2	90.5	93.0	36.0	30.5
	24	29.0	29.5	25.5	72.0	102.5	92.5	39.0	30.5
	25	36.0	35.2	34.2	76.8	66.7	70.8	52.0	51.0
	26	44.5	40.5	39.8	82.2	113.6	97.0	47.0	43.5
	27	40.2	38.5	38.0	70.8	89.0	90.0	53 5	53.0
	28	52.4	51.3	53.2	68.0	86.1	92.0	50.0	41.0
	29	43.0	40.0	34.5	74.0	106.5	96.2	41.0	36.5
	30	32.0	33.5	31.0	64.0	106.5	95.0	48.3	45.5
	31	39.5	44.0	45.5	70.1	68.0	53.0	60.5	59.0
Hourly means.		47.16	46.19	45.45	75.29	91.85	91.47	67.42	49.03

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	°
November	1	57.5	50.0	44.0	40.2	43.0	56.5	44.0	42.5
	2	40.0	40.0	40.0	50.0	57.0	68.0	41.0	47.5
	3	30.0	29.0	27.0	76.0	101.8	92.5	39.8	34.5
	4	32.5	33.0	32.0	72.0	105.0	98.5	49.2	49.5
	5	50.0	50.0	48.2	66.0	97.2	74.2	47.0	42.9
	6	35.9	34.0	33.0	61.1	91.0	89.0	39.0	33.5
	7	30.0	31.0	26.2	57.8	102.5	69.8	47.0	39.0
	8	42.0	43.0	44.2	64.3	113.0	95.8	56.2	58.5
	9	57.5	52.5	51.0	73.0	115.0	100.0	59.0	54.5
	10	52.0	51.5	54.5	87.0	121.6	121.6	94.5	60.5
	11	52.0	48.0	46.0	53.2	97.5	80.0	44.5	34.5
	12	33.0	29.0	26.3	28.0	95.5	80.5	35.0	32.5
	13	29.5	26.0	25.8	53.2	93.5	63.0	39.8	34.5
	14	32.0	29.0	28.5	53.0	115.0	85.0	45.0	37.0
	15	37.5	34.5	35.0	62.0	103.2	86.4	43.5	40.5
	16	34.0	33.5	43.0	49.1	56.9	66.8	45.0	46.0
	17	46.0	45.0	44.0	57.0	54.3	50.2	50.5	51.5
	18	51.3	49.0	46.2	59.0	97.2	77.0	36.0	33.0
	19	31.8	29.0	27.8	46.9	100.0	81.5	38.0	39.0
	20	39.0	40.0	40.0	44.0	44.0	40.0	32.2	32.2
	21	30.0	29.8	33.0	66.0	81.5	43.5	35.2	34.0
	22	35.5	34.5	35.5	41.2	61.5	58.5	33.0	32.0
	23	28.0	24.0	24.0	50.0	91.0	76.8	31.5	27.8
	24	28.5	28.0	26.0	57.5	98.0	82.0	38.3	32.2
	25	31.0	29.5	27.5	46.0	59.5	52.0	44.1	44.0
	26	44.0	44.2	44.5	58.2	99.0	56.0	45.0	43.0
	27	37.0	35.7	28.5	58.5	95.0	77.0	35.5	31.0
	28	26.0	24.2	24.0	44.0	97.9	73.5	43.0	42.0
	29	41.5	41.0	41.0	60.0	84.2	59.5	39.0	29.2
	30	29.9	33.0	30.2	46.5	97.5	73.0	40.0	37.2
Hourly means.		37.86	36.69	35.90	56.02	88.64	74.27	43.69	39.87

Mean time.		0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.		°	°	°	°	°	°	°	
December	1	35.0	32.6	30.5	41.5	63.1	57.5	30.0	24.0
	2	23.0	22.0	20.5	38.0	71.5	60.2	28.5	23.0
	3	19.5	19.0	20.2	37.0	85.4	59.0	27.0	26.0
	4	27.5	27.5	28.5	34.6	36.9	34.0	30.0	32.0
	5	30.6	31.0	31.0	40.0	51.7	60.0	29.5	33.5
	6	28.5	25.0	25.2	44.5	69.0	46.6	36.0	35.0
	7	36.2	36.0	33.2	38.0	45.0	56.5	35.0	37.0
	8	33.5	34.5	37.0	45.0	74.0	54.5	33.0	25.5
	9	26.0	25.0	26.2	54.0	83.0	50.2	22.5	18.7
	10	18.5	18.0	23.5	34.0	83.0	51.3	24.1	23.5
	11	22.5	24.5	22.0	29.5	38.8	42.7	20.2	19.5
	12	18.3	18.0	12.3	33.0	75.0	43.5	16.0	14.0
	13	13.0	12.2	12.0	29.6	78.9	40.0	17.8	20.0
	14	18.0	15.0	13.5	26.5	34.2	36.2	27.2	20.5
	15	24.0	20.9	25.5	38.5	71.2	50.0	29.2	26.5
	16	27.5	30.2	30.0	35.0	40.0	36.5	33.1	33.5
	17	32.0	30.0	28.5	37.5	47.2	58.2	34.0	33.5
	18	37.5	32.0	31.5	54.0	89.5	58.8	34.0	26.5
	19	24.0	20.5	24.0	37.0	85.2	. .	27.0	25.5
	20	28.0	30.0	32.5	45.0	55.0	63.8	46.5	43.5
	21	38.0	37.3	31.2	42.5	95.8	64.9	37.0	29.0
	22	35.5	32.5	28.5	40.5	89.0	49.2	29.5	30.0
	23	31.0	32.0	32.0	32.5	80.0	49.2	18.4	15.5
	24	13.2	14.3	19.4	28.0	35.9	36.0	18.0	16.0
	25	14.5	13.5	9.0	23.0	79.0	53.0	21.0	16.0
	26	18.0	15.8	15.0	47.0	50.0	38.5	28.8	27.0
	27	26.8	27.0	29.0	33.0	40.5	38.0	32.0	31.5
	28	26.0	24.0	21.5	31.5	44.2	40.0	30.2	30.5
	29	30.2	30.2	30.0	31.7	38.0	37.5	32.5	33.0
	30	34.5	33.0	32.0	39.0	40.4	34.5	25.0	25.5
	31	27.8	28.0	28.5	37.0	46.5	39.6	33.2	33.2
Hourly means.		26.37	25.21	25 12	37.35	61.84	48.00	28.27	26.83

MAXIMUM AND MINIMUM TEMPERATURES DURING THE YEAR 1868.

Day.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	41.0	23.5	34.5	2.0	29.5	18.0	73.5	39.5	75.0	55.6	78.0	53.6	88.0	70.0	89.5	69.5	87.0	71.5	77.3	50.7	62.0	38.2	40.0	32.0
2	41.0	32.0	36.8	6.0	34.0	25.0	65.8	49.5	76.2	54.3	76.0	62.5	90.5	69.9	84.2	73.8	80.8	70.0	67.5	57.2	50.5	39.2	40.0	24.6
3	48.5	29.5	22.0	9.0	24.0	7.0	52.0	35.0	63.0	46.0	63.0	55.3	89.8	71.0	87.5	72.5	78.5	69.0	64.5	58.0	55.5	31.5	40.0	24.5
4	56.0	37.0	32.0	1.0	33.5	7.5	62.0	37.2	62.5	48.0	72.3	55.0	90.5	72.8	84.0	71.0	75.5	67.5	64.5	56.0	66.8	35.0	33.6	28.5
5	46.5	38.5	36.0	15.0	41.0	13.0	41.5	27.5	63.2	54.0	78.0	56.8	91.4	72.0	83.0	71.0	79.3	64.0	70.1	52.5	61.0	47.0	40.0	29.2
6	39.5	29.0	40.2	23.5	44.0	27.5	52.0	24.5	67.0	56.0	84.5	65.0	89.5	70.5	83.5	65.5	82.5	60.5	69.8	53.2	60.6	37.0	45.2	28.5
7	38.5	30.0	. .	13.5	59.6	36.5	42.0	35.5	59.4	53.0	83.0	67.5	88.8	72.5	82.5	70.0	81.5	66.0	72.7	50.0	57.6	30.5	43.0	33.6
8	40.6	35.0	28.0	−4.5	68.5	47.5	59.0	34.7	58.5	44.8	81.0	60.2	90.0	74.0	87.0	68.0	77.5	58.0	71.6	51.5	70.6	44.0	41.0	34.9
9	39.5	17.0	39.0	25.0	60.0	35.0	39.8	29.0	66.5	41.8	82.0	65.5	88.5	72.0	86.0	68.8	84.5	64.0	57.0	37.0	73.7	53.0	41.0	26.5
10	31.0	11.0	39.5	21.2	71.8	36.2	40.0	29.5	69.0	46.0	69.0	55.8	81.0	72.0	82.5	64.8	87.5	70.0	59.2	40.5	75.0	55.5	37.5	21.5
11	36.5	15.0	30.8	17.3	57.0	41.5	59.0	31.8	67.8	44.0	64.8	56.2	90.5	70.5	84.0	68.5	88.9	70.5	71.6	56.0	48.4	41.0	27.5	21.0
12	24.5	14.0	36.5	6.2	41.5	38.0	70.5	39.2	64.5	46.3	79.0	58.0	92.0	70.0	78.5	67.0	. .	. .	70.6	48.2	48.5	32.2	29.4	14.0
13	26.5	13.5	44.0	20.0	51.3	39.0	54.5	25.0	63.0	48.5	82.5	55.3	93.5	70.0	78.2	58.5	87.5	70.5	68.0	43.0	55.5	28.2	31.3	14.2
14	. .	13.5	44.0	23.0	54.6	38.5	45.5	29.0	69.5	55.5	84.6	58.2	96.9	72.5	81.5	55.5	72.5	62.0	60.6	52.0	62.5	30.6	31.0	14.0
15	33.0	19.5	45.0	20.5	68.0	47.2	66.5	41.5	68.0	55.0	85.5	67.0	98.0	74.5	83.6	59.8	72.5	59.5	61.8	56.0	62.5	35.5	40.3	25.0
16	38.0	23.0	44.0	31.0	75.6	55.5	65.5	53.0	71.0	56.5	87.2	69.0	98.4	80.0	86.5	63.5	76.0	64.0	65.5	55.5	50.6	37.4	35.0	29.5
17	. .	12.0	43.5	25.5	78.5	61.0	71.3	56.0	66.5	56.5	84.6	68.5	90.6	71.5	84.5	62.0	63.5	49.0	56.4	43.5	51.2	43.1	42.3	30.0
18	33.5	9.0	37.4	25.0	62.5	50.2	61.0	42.0	71.5	55.5	86.2	71.0	91.5	69.5	86.0	62.0	67.0	43.5	54.0	30.0	50.3	43.0	45.0	36.8
19	35.0	18.0	57.5	26.5	52.0	33.0	61.0	43.0	60.5	48.0	89.5	71.0	93.5	73.0	87.8	72.0	70.0	44.0	64.0	42.0	55.0	30.2	42.0	24.0
20	35.5	22.0	55.0	26.3	52.0	33.0	50.2	42.0	62.0	46.8	89.6	71.3	85.6	76.0	84.3	73.5	72.0	54.5	58.0	43.0	41.0	32.1	49.3	29.3
21	35.8	32.5	48.5	36.5	40.5	33.0	52.5	45.5	72.0	51.2	78.5	70.0	89.0	75.0	83.0	70.5	69.5	55.8	49.5	45.5	42.0	31.5	51.5	35.0
22	40.0	20.5	. .	20.0	47.8	28.0	70.5	37.0	75.4	49.5	80.3	64.2	90.6	71.5	82.5	63.5	68.8	52.0	55.0	41.7	39.5	34.5	42.0	30.5
23	40.0	26.0	. .	10.0	73.0	31.0	76.6	47.3	66.0	59.5	80.6	61.0	90.2	68.2	77.0	62.4	82.0	64.0	51.5	34.5	45.6	28.5	33.0	21.0
24	48.0	32.0	22.4	18.5	64.0	50.4	66.5	37.5	68.0	55.3	80.8	63.2	80.0	71.0	82.8	65.2	59.0	53.0	56.5	31.2	52.5	30.5	37.5	19.0
25	49.0	22.5	31.5	20.0	49.0	36.0	47.6	42.5	74.0	55.0	78.0	61.0	87.3	72.5	81.5	66.5	73.8	51.5	61.0	38.7	47.6	29.5	33.2	11.6
26	41.5	28.2	31.5	24.0	41.0	31.0	64.0	40.2	80.0	57.0	77.3	61.5	83.0	72.2	85.0	65.2	70.6	53.2	65.2	41.0	56.5	42.0	35.5	18.2
27	39.5	34.5	34.5	27.5	36.0	34.5	67.0	43.0	77.0	58.0	81.5	59.7	76.0	66.2	88.5	66.8	63.6	54.5	64.2	38.8	48.5	34.2	35.5	28.0
28	34.0	25.4	32.0	26.0	52.0	34.3	72.0	42.5	73.5	61.0	87.5	66.5	83.5	63.5	76.0	69.5	78.5	54.9	69.0	54.5	51.5	26.3	32.4	21.3
29	. .	26.0	32.2	22.5	56.5	43.4	63.5	46.5	75.5	58.0	82.5	64.0	84.8	64.7	84.5	70.0	69.6	52.5	58.4	38.0	50.4	39.8	33.6	28.2
30	33.8	12.0	. .	. .	48.8	32.0	81.5	50.0	81.8	59.5	79.2	62.8	86.0	67.0	88.5	70.2	72.0	45.0	60.5	34.3	52.5	34.5	35.0	29.5
31	32.5	−1.0	. .	. .	63.5	35.5	. .	. .	75.2	55.0	. .	. .	89.5	67.5	89.0	72.1	. .	. .	62.8	43.0	. .	. .	34.2	28.0
Mean..	38.53	22.60	37.63	18.55	52.77	34.81	59.81	39.21	69.13	52.62	80.22	62.55	88.98	71.08	83.96	67.07	75.58	59.12	63.17	45.71	54.84	36.52	37.99	25.55
Mean temp.	30.56		28.09		43.79		49.51		60.88		71.38		80.03		75.52		67.35		54.44		45.68		31.77	

Day.	Hour.	WIND. Direction.	WIND. Force.	Weather.	Portion cloudy.	Day.	Hour.	WIND. Direction.	WIND. Force.	Weather.	Portion cloudy.	Day.	Hour.	WIND. Direction.	WIND. Force.	Weather.	Portion cloudy.
1868.						1868.						1868.					
Jan. 1	0	NE.	2	N.	10	Jan. 2	0	W.	1	C. K.	3	Jan. 3	0	S.	1	C. K. S.	
	3	N. NE.	3	N.	10		3	SW.	1	C. K.	6		3	SW.	1	Clear	[illegible]
	6	N.	2	N.	10		6	S.	1	C.	2		6	W.	1	Clear	[illegible]
	9	NE.	1	N.	10		9	S.	1	C. K.	7		9	W.	1	C. K.	[illegible]
	Noon	NW.	2	K.	10		Noon	SE.	1	C. K.	10		Noon	S.	1	C. K.	[illegible]
	3	SW.	1	C.	1		3	S.	1	K.	10		3	S.	1	C. K.	[illegible]
	6	SW.	1	C. K. S.	3		6	SE.	1	N.	10		6	E. SE.	1	C. K.	[illegible]
	9	SW.	1	C. K.	9		9	S.	1	N.	10		9	E. SE.	1	K.	[illegible]
Jan. 4	0	SE.	1	N.	10	Jan. 5	0	E.	1	C. K.	4	Jan. 6	0	NW.	1	C. K.	[illegible]
	3	E.	1	K.	10		3	N. NE.	2	C. K.	6		3	NW.	1	Haze	
	6	NE.	1	N.	10		6	NW.	2	C. K.	8		6	N.	1	Haze	
	9	S.	1	N	10		9	W. NW.	1	C. K.	10		9	E.	1	C. K.	[illegible]
	Noon	SE.	1	C. K.	4		Noon	NW.	2	C. K. S.	4		Noon	S.	1	N.	[illegible]
	3	W.	2	C.	1		3	NW.	1	C. K.	2		3	SE.	1	N.	[illegible]
	6	NW.	1	Clear	0		6	NE.	1	C. S.	4		6	E.	1	N.	[illegible]
	9	NW.	2	Clear	0		9	E.	1	Clear	0		9	E.	1	N.	[illegible]
Jan. 7	0	E.	1	N.	10	Jan. 8	0	N. NE.	2	N.	10	Jan. 9	0	W.	1	K.	[illegible]
	3	E.	1	K.	10		3	N. NE.	1	N.	10		3	NW.	1	C. K.	[illegible]
	6	N.	1	N.	10		6	N. NE.	1	N.	10		6	NW.	4	C. S.	[illegible]
	9	W.	1	N.	10		9	N.	1	K.	10		9	NW.	3	C. K.	[illegible]
	Noon	S.	1	K.	10		Noon	N.	1	K.	10		Noon	NW.	4	C. K.	[illegible]
	3	SE.	1	K.	10		3	NW.	1	K.	10		3	NW.	4	C. K.	[illegible]
	6	S.	1	C. K.	10		6	SW.	1	K.	10		6	NW.	3	C. S.	[illegible]
	9	E.	1	N.	10		9	N.	1	K.	10		9	N.	2	Clear	[illegible]
Jan. 10	0	NW.	2	Clear.	0	Jan. 11	0	NW.	1	Clear	0	Jan. 12	0	NW.	3	C.	[illegible]
	3	NW.	1	C. K.	4		3	NW.	1	C.	3		3	NW.	3	Clear	[illegible]
	6	SW.	1	C. K. S.	2		6	S.	1	C. K.	4		6	NW.	2	C. S.	[illegible]
	9	SW.	1	S.	1		9	S.	1	C. K.	9		9	NW.	2	C. K.	[illegible]
	Noon	W.	1	C.	3		Noon	SW.	1	C. K.	8		Noon	NW.	3	C. K.	[illegible]
	3	W.	2	C.	1		3	SW.	2	C. K.	2		3	NW.	2	C. K.	[illegible]
	6	SW.	1	Clear	0		6	W.	1	C. K.	8		6	W.	2	K.	[illegible]
	9	NW.	1	Clear	0		9	NW.	1	C.	1		9	NW.	2	C. K.	[illegible]
Jan. 13	0	NW.	2	C. K.	10	Jan. 14	0	N.	2	C.	1	Jan. 15	0	E.	1	N.	[illegible]
	3	NW.	2	C. K.	8		3	N.	1	K.	10		3	E.	1	N.	[illegible]
	6	NW.	2	Clear	0		6	NE.	1	K.	10		6	E.	1	K.	[illegible]
	9	NW.	2	Clear	0		9	E.	1	N.	10		9	E.	1	C. K.	[illegible]
	Noon	NW.	3	C.	2		Noon	S.	1	N.	10		Noon	W.	1	C. K.	[illegible]
	3	NW.	2	Clear	0		3	SE.	1	N.	10		3	SW.	1	C. K.	[illegible]
	6	NW.	3	C. S.	1		6	SE.	1	N.	10		6	SW.	1	C. K. S.	[illegible]
	9	NW.	1	Clear	0		9	S.	1	N.	10		9	SW.	1	K.	[illegible]

REMARKS.

January 1. Rained steadily during the night. Amount after midnight, 0.500 inch.

4. Light rain in the morning. Amount, 0.008 inch.

6. Commenced snowing at 10^h a. m. Changed to rain at 2^h p. m., and continued until 6^h a. m. on the 8th. Amount, 0.410 inch.

14. Commenced snowing at 9^h a. m. Depth of snow, 3.0 inches. Amount of melted snow, 0.372 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. Jan. 16	0	S. SW.	1	K.	10	1868. Jan. 17	0	NW.	1	C. K.	2	1868. Jan. 18	0	W.	1	Clear	0
	3	S. SW.	1	K.	10		3	NW.	1	C. K.	3		3	W.	1	Clear	0
	6	W.	1	K.	10		6	NW.	1	C. K.	5		6	N.	1	Clear	0
	9	W.	1	K.	10		9	NW.	2	C. K.	2		9	S.	1	C. K.	8
	Noon	SE.	1	Haze	0		Noon	NW.	3	C. K.	2		Noon	SW.	1	C. K.	7
	3	NW.	1	C.	1		3	NW.	3	C. K.	2		3	W.	1	C. K.	4
	6	NW.	1	C. K. S.	6		6	W.	1	S.	1		6	SW.	1	C. K. S.	2
	9	NW.	2	C. K.	9		9	NW.	3	S.	1		9	NW.	1	K.	10
Jan. 19	0	W.	1	K.	10	Jan. 20	0	E.	1	C. K.	6	Jan. 21	0	NE.	1	N.	10
	3	NW.	1	C. K.	3		3	E.	1	K.	10		3	NE.	1	N.	10
	6	NW.	1	Clear	0		6	SE.	1	K.	10		6	NW.	1	N.	10
	9	NE.	1	C. S.	2		9	SE.	1	N.	10		9	NW.	1	C. K.	10
	Noon	S.	1	S.	1		Noon	S.	1	N.	10		Noon	NW.	2	N.	10
	3	SE.	1	S.	1		3	NE.	1	N.	10		3	NW.	2	C. K.	10
	6	SE.	1	S.	1		6	NE.	1	N.	10		6	NW.	3	C. K. S.	4
	9	SE.	1	C. K.	3		9	NE.	1	N.	10		9	NW.	3	Clear.	0
Jan. 22	0	NW.	2	Clear	0	Jan. 23	0	E.	1	C. K.	4	Jan. 24	0	SE.	1	K.	10
	3	W.	2	Clear	0		3	E.	1	K.	10		3	SW.	1	C. K.	6
	6	W.	1	Clear	0		6	E.	1	C. K.	10		6	NW.	2	S.	1
	9	N. N. W.	1	C. S.	2		9	SE.	1	K.	10		9	NW.	2	C. K.	4
	Noon	NE.	1	C. S.	6		Noon	S.	1	N.	10		Noon	NW.	2	C. K.	2
	3	S.	1	C. K.	5		3	S. SE.	1	N.	10		3	NW.	2	C.	1
	6	SE.	1	C. K.	3		6	S.	1	K.	10		6	NW.	2	Clear	0
	9	SE.	1	C.	2		9	SE.	1	K.	10		9	NW.	3	Clear	0
Jan. 25	0	NW.	2	Clear	0	Jan. 26	0	S.	1	C. K.	3	Jan. 27	0	S.	2	K.	10
	3	NW.	2	Clear	0		3	SE.	1	C. K.	10		3	S.	1	N.	10
	6	N.	1	Clear	0		6	S.	1	C. K.	10		6	S.	1	N.	10
	9	W.	1	Clear	0		9	S.	1	C. K.	10		9	SW.	1	N.	10
	Noon	NW.	1	Clear	0		Noon	S.	1	C. K.	10		Noo	N. NE.	1	C. K.	10
	3	W.	1	S.	1		3	S.	1	C. K.	10		3	N. NW.	1	N.	10
	6	S.	1	C. K.	3		6	S.	1	C. K.	10		6	N.	1	C. K.	8
	9	SW.	1	C. K.	4		9	S.	1	K.	10		9	NW.	1	Haze	
Jan. 28	0	NW.	1	C. K.	10	Jan. 29	0	E.	1	K.	10	Jan. 30	0	NW.	2	N.	10
	3	NW.	1	K.	10		3	N. NE.	1	N.	10		3	NW.	3	C. K.	10
	6	N.	1	K.	10		6	N. NE.	1	N.	10		6	NW.	3	C. K.	8
	9	NE.	1	K.	10		9	N.	1	N.	10		9	NW.	2	C. K.	3
	Noon	N.	1	N.	10		Noon	NW.	2	N.	10		Noon	NW.	3	C. K.	2
	3	N.	1	K.	10		3	NW.	2	N.	10		3	NW.	3	C.	1
	6	E.	1	C. K.	4		6	NW.	2	N.	10		6	W.	1	Clear	0
	9	E.	1	K.	10		9	NW.	2	N.	10		9	NW.	1	Clear	0

REMARKS.

January 20. Commenced snowing at 6^h 35^m a. m., and continued to snow and rain until 6^h a. m. on the 21st. Amount of rain and melted snow, 0.538 inch.
23. Commenced raining at 7^h 20^m a. m. Amount, 0.210 inch.
27. Rain at 1^h a. m., and snow at 8^h a. m.
28. Commenced snowing at 7^h 30^m a. m. Amount of melted snow and sleet and rain, 0.098 inch.
29. Commenced snowing at 2^h 30^m, and changed to rain at 10^h 20^m a. m. Depth of snow, 3.2 inches. Amount when melted, 0.324 inch.
30. Snow in the morning. Depth, 3.0 inches.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868.						1868.						1868.					
Jan. 31	0	NW.	2	Clear	0												
	3	NW.	1	Clear	0												
	6	W.	1	Clear	0												
	9	S.	1	C.	2												
	Noon	SE.	1	Clear	0												
	3	SE.	1	Clear	0												
	6	SW.	1	Clear	0												
	9	W.	1	Clear	0												
Feb. 1	0	W. NW.	1	Clear	0	Feb. 2	0	W.	1	Clear	0	Feb. 3	0	NW.	4	C. K.	8
	3	W. NW.	1	Clear	0		3	W.	1	Clear	0		3	NW.	4	Clear	0
	6	NW.	1	Clear	0		6	W.	1	C.	4		6	NW.	4	S.	1
	9	N.	1	Haze			9	NE.	1	C. K.	7		9	NW.	3	Clear	0
	Noon	SE.	1	C. K.	3		Noon	S.	1	C. K.	9		Noon	NW.	3	Clear	0
	3	SE.	1	C. K.	4		3	S.	1	C. K.	6		3	N. NW.	1	Clear	0
	6	S.	1	S.	1		6	S.	1	C. K. S.	6		6	NW.	1	Clear	0
	9	S.	1	C.	1		9	W.	1	C. K.	10		9	N. NE.	1	Clear	0
Feb. 4	0	NW.	1	Clear	0	Feb. 5	0	N.	1	C. K.	6	Feb. 6	0	NW.	1	K.	10
	3	NE.	1	C. K.	3		3	NE.	1	K.	10		3	NW.	2	K.	10
	6	S.	1	K.	9		6	NE.	1	K.	10		6	NW.	1	K.	10
	9	S.	1	K.	10		9	NE.	1	N.	10		9	SW.	1	K.	10
	Noon	S.	1	K.	10		Noon	NE.	1	N.	10		Noon	S.	1	C. K.	7
	3	S.	1	K.	10		3	N. NE.	1	N.	10		3	NW.	3	C.	2
	6	S.	1	C. K. S.	10		6	N.	1	N.	10		6	W. NW.	3	C. K.	1
	9	NE.	1	C. K.	8		9	NW.	1	K.	10		9	NW.	3	C. K.	5
Feb. 7	0	NW.	3	Clear	0	Feb. 8	0	NW.	1	Clear	0	Feb. 9	0	S. SE.	2	K.	10
	3	W.	3	Clear	0		3	NW.	1	Clear	0		3	S. SE.	2	N.	10
	6	W.	3	C.	1		6	NW.	1	S.	1		6	S. SW.	2	N.	10
	9	NW.	3	C. S.	1		9	NW.	1	C.	1		9	S.	2	N.	10
	Noon	NW.	3	C.	1		Noon	S.	1	C. K.	3		Noon	S.	2	N.	10
	3	NW.	3	Clear	0		3	S.	1	C. K.	8		3	S.	2	K.	10
	6	NW.	2	Clear	0		6	S.	1	K.	10		6	SW.	1	N.	10
	9	N. NW.	1	Clear	0		9	SE.	1	K.	10		9	E.	1	C. K.	10
Feb. 10	0	NW.	3	C. K.	8	Feb. 11	0	NE.	1	K.	10	Feb. 12	0	N.	1	Clear	0
	3	NW.	4	C. K.	6		3	NE.	1	K.	10		3	NW.	1	Clear	0
	6	NW.	3	C. K.	3		6	NE.	1	N.	10		6	NW.	1	Clear	0
	9	NW.	2	C. K.	9		9	N. NW.	2	C. K.	5		9	W.	1	Clear	0
	Noon	N.	2	C. K.	9		Noon	NW.	1	C. K.	2		Noon	SE.	1	Clear	0
	3	NE.	2	C. K.	9		3	NW.	2	C. K.	2		3	SE.	1	Clear	0
	6	NE.	1	K.	10		6	N. NW.	2	C. S.	1		6	S.	1	S.	1
	9	NE.	1	K.	10		9	NW.	1	Clear	0		9	S.	1	Clear	0

REMARKS.

February 5. Commenced snowing at 7^h 15^m a. m. Changed to rain at 4 p. m. Very light.

6. At 11^h 33^m p. m. a brilliant meteor appeared at a point 3° north of the Pleiades and 30° above the horizon, and moved perpendicularly toward the horizon, near which it disappeared. Its magnitude when first seen was equal to that of η Tauri, but just before its disappearance it was larger than Jupiter.

9. Snow and rain during the day. Amount, 1.156 inch.

11. Light snow at 4^h 20^m a. m.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. Feb. 13	0	SE.	1	Clear	0	1868. Feb. 14	0	NW.	2	Clear	0	1868. Feb. 15	0	E.	1	Clear	0
	3	S.	1	C. K.	4		3	N.	3	Clear	0		3	SE.	1	C.	2
	6	S.	1	Clear	0		6	N.	3	C.	1		6	S. SE.	1	C. K.	8
	9	S.	1	Clear	0		9	N.	2	C. S.	2		9	S.	1	C. S.	4
	Noon	S.	1	C. K.	2		Noon	N.	1	C. K.	8		Noon	S.	2	C.	2
	3	S. SE.	1	C. K.	2		3	NW.	1	C. K. S.	3		3	S.	1	C. K.	8
	6	S.	1	C. K.	3		6	SE.	1	C. S.	2		6	S. SE.	1	C. K.	7
	9	W. NW.	1	Clear	0		9	SE.	1	Clear	0		9	NW.	1	K.	10
Feb. 16	0	NW.	1	C. K.	3	Feb. 17	0	SE.	1	C. K.	6	Feb. 18	0	NW.	4	S.	1
	3	NW.	1	C. K.	2		3	SE.	1	K.	10		3	NW.	4	S.	1
	6	NW.	2	C. K.	5		6	SE.	1	K.	10		6	NW.	3	S.	1
	9	NW.	3	C. K.	10		9	S.	1	C. K.	9		9	NW.	4	Clear	0
	Noon	NW.	2	C. K.	10		Noon	S. SE.	2	C. K.	10		Noon	NW.	3	S.	1
	3	NW.	1	C. K.	9		3	S. SW.	1	K.	10		3	W. NW.	2	Clear	0
	6	E.	1	S.	1		6	S.	1	C. K. S.	9		6	N.	1	K. S.	2
	9	SE.	1	Clear	0		9	NW.	2	K. S.	2		9	N.	1	C.	1
Feb. 19	0	SE.	1	Clear	0	Feb. 20	0	NW.	1	Clear	0	Feb. 21	0	SW.	1	K.	10
	3	SE.	1	K.	10		3	NW.	1	Clear	0		3	W.	1	K.	10
	6	S. SW.	1	K.	9		6	NW.	1	Clear	0		6	NW.	1	K.	10
	9	NW.	1	C. K.	4		9	NW.	1	C. K.	3		9	NW.	1	C. K.	8
	Noon	SW.	1	Haze			Noon	SE.	1	Haze			Noon	W.	1	K.	10
	3	NW.	1	Clear	0		3	S.	1	Haze			3	E.	1	K.	10
	6	S. SW.	1	Clear	0		6	S.	1	C. K.	8		6	NE.	1	K.	10
	9	W.	1	Clear	0		9	S.	1	C. K.	10		9	NE.	1	K.	10
Feb. 22	0	N.	1	Clear	0	Feb. 23	0	NE.	1	C. S.	2	Feb. 24	0	NE.	1	C. K.	10
	3	N.	3	K.	5		3	N.	1	Clear	0		3	NE.	2	K.	10
	6	N.	3	K.	9		6	N.	2	Clear	0		6	NE.	2	K.	10
	9	N.	2	C. K.	7		9	N. NE.	1	C. K.	4		9	E.	1	N.	10
	Noon	NW.	3	C.	2		Noon	NE.	2	C. K.	7		Noon	E.	1	N.	10
	3	N.	2	Clear	0		3	E. NE.	2	C. K.	8		3	NE.	1	N.	10
	6	N.	1	S.	1		6	NE.	2	C. K. S.	10		6	NE.	1	N.	10
	9	N.	1	S.	1		9	N. NE.	2	C. K.	10		9	NE.	1	N.	10
Feb. 25	0	NE.	1	N.	10	Feb. 26	0	NE.	1	N.	10	Feb. 27	0	NE.	2	N.	10
	3	NE.	1	N.	10		3	NE.	1	N.	10		3	NE.	1	N.	10
	6	NE.	1	K.	10		6	NE.	1	N.	10		6	NE.	1	N.	10
	9	NE.	1	N.	10		9	NE.	1	N.	10		9	E.	1	N.	10
	Noon	NE.	1	K.	10		Noon	NE.	1	N.	10		Noon	SE.	1	N.	10
	3	NE.	1	N.	10		3	NE.	1	N.	10		3	SE.	1	N.	10
	6	E.	1	K.	10		6	NE.	1	N.	10		6	W. SW.	1	N.	10
	9	E.	1	N.	10		9	NE.	1	N.	10		9	W.	1	Haze	10

REMARKS.

February 17. Rain and snow squalls during the day. Amount of rain, 0.040 inch.

24. Commenced snowing at 7^h 40^m a. m., and continued until 10^h a. m. on the 25th. Depth of snow, 3.75 inches. Amount when melted, 0.698 inch.

Snow and rain at intervals during the 26th and 27th. Amount, 0.120 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868.						1868.						1868.					
Feb. 28	0	N. NE.	2	K.	10	Feb. 29	0	W.	1	C. K.	8						
	3	N. NE.	3	K.	10		3	W.	2	C. K.	4						
	6	NW.	2	C. K.	8		6	W. NW.	1	C.	2						
	9	W. NW.	3	C. K.	8		9	NW.	3	C. K.	3						
	Noon	NW.	4	C. K.	10		Noon	NW.	4	C. K.	2						
	3	NW.	4	C. K.	10		3	NW.	3	C. K.	2						
	6	W. NW.	3	C. S.	3		6	NW.	2	Clear	0						
	9	W.	2	C. K.	8		9	N. NW.	1	C. K. S.	3						
Mar. 1	0	N.	1	C. K.	3	Mar. 2	0	E.	1	N.	10	Mar. 3	0	NW.	5	K.	
	3	NE.	1	K.	10		3	E.	1	N.	10		3	NW.	5	C. K.	
	6	NE.	1	K.	10		6	NW.	2	N.	10		6	NW.	3	Clear	
	9	SE.	1	K.	10		9	NW.	1	N.	10		9	NW.	3	Clear	
	Noon	E. SE.	1	K.	10		Noon	SE.	1	N.	10		Noon	N.	2	C. K.	
	3	E.	1	K.	10		3	NW.	3	N.	10		3	W. NW.	2	C. K.	
	6	E. NE.	1	K.	10		6	NW.	3	C. K. S.	10		6	NW.	4	C. K. S.	
	9	NE.	1	N.	10		9	NW.	7	K.	10		9	NW.	2	Clear	
Mar. 4	0	NW.	3	Clear	0	Mar. 5	0	NW.	1	Clear	0	Mar. 6	0	SE.	1	C. K.	
	3	NW.	2	Clear	0		3	W. SW.	1	Clear	0		3	SE.	1	C. K.	
	6	W.	1	C. S.	2		6	N.	2	Clear	0		6	SE.	1	C. K.	
	9	NW.	3	Clear	0		9	NW.	1	Clear	0		9	S.	1	C. K.	
	Noon	NW.	3	Clear	0		Noon	S.	1	Clear	0		Noon	S.	2	C. K.	
	3	NW.	3	Clear	0		3	SE.	1	C. K.	4		3	S.	1	C. K.	
	6	W. NW.	2	Clear	0		6	SE.	1	C. K.	10		6	SE.	1	C. K.	
	9	NW.	1	Clear	0		9	E.	1	C.	4		9	SE.	1	C. K.	
Mar. 7	0	SE.	1	C. K.	10	Mar. 8	0	S.	1	C. K.	10	Mar. 9	0	NW.	1	C. K.	
	3	SE.	1	K.	10		3	S.	2	C. K.	10		3	N.	1	C. K.	
	6	S. SW.	1	K. S.	10		6	S.	1	C. K.	7		6	N.	1	C. K.	
	9	S.	1	C.	6		9	S.	1	C. K.	10		9	E.	1	C. K.	
	Noon	S.	1	C.	9		Noon	SW.	1	C. K.	10		Noon	N. NE.	1	C. K.	
	3	S.	1	C. K.	4		3	SE.	1	C. K.	10		3	NE.	1	C. K.	
	6	S.	1	C. K.	8		6	NE.	1	C. S.	4		6	NE.	1	C. K. S.	
	9	S.	1	C. K.	10		9	NE.	1	C.	3		9	E. NE.	1	C. K.	
Mar. 10	0	NE.	1	C. K.	10	Mar. 11	0	N. NE.	2	C. K.	10	Mar. 12	0	E. NE.	1	K.	
	3	NE.	1	C. K.	10		3	N.	2	C. K.	10		3	E. NE.	1	K.	
	6	NE.	1	C. S.	10		6	N.	1	C. K.	9		6	E. NE.	1	K.	
	9	SE.	1	C. K.	6		9	N. NE.	1	C. K.	9		9	E.	1	N.	
	Noon	S.	1	C.	3		Noon	NE.	1	C. K.	10		Noon	E.	1	N.	
	3	S.	2	C.	2		3	E.	2	C. K.	5		3	E.	1	N.	
	6	S.	1	C. K.	9		6	E.	1	C. K.	8		6	E.	1	K.	10
	9	S.	1	C. K.	7		9	NE.	1	C.	4		9	E.	1	K.	10

REMARKS.

March 1. Hail and rain from 8h p. m. until 7h a. m. on the 2d. Amount, 0.344 inch.
12. Began to rain at 8h a. m. Amount, 0.100 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. lar. 13	0	E.	1	K.	10	1868. Mar. 14	0	SW.	1	Fog		1868. Mar. 15	0	SE.	1	Fog	
	3	S.	1	K.	10		3	SW.	1	Fog			3	SE.	1	Fog	
	6	S.	1	K.	10		6	SW.	1	Fog			6	SW.	1	Fog	
	9	SW.	1	K.	10		9	NW.	1	Fog			9	SW.	1	Fog	
	Noon	S.	1	K.	10		Noon	W.	1	Fog			Noon	S. SW.	1	C. K.	4
	3	SW.	1	K.	10		3	W.	1	Fog			3	S. SE.	1	C. K.	4
	6	S.	1	C. K.	3		6	S. SW.	1	K. S.	10		6	S.	1	C. K. S.	5
	9	NW.	1	Fog			9	SE.	1	Clear	0		9	S. SW.	1	C. K.	10
lar. 16	0	S.	1	C. K.	10	Mar. 17	0	NW.	1	C. K.	10	Mar. 18	0	S.	2	K.	10
	3	S.	1	C. K.	10		3	N. NW.	1	C. K.	5		3	W.	3	K.	10
	6	S. SW.	1	C. K.	5		6	S. SW.	1	C. K.	5		6	NW.	3	K.	10
	9	S. SW.	1	C. K.	8		9	S.	3	Haze			9	NW.	3	C. K.	4
	Noon	S. SW.	2	C. K.	6		Noon	S. SW	3	C. K.	7		Noon	W. NW.	3	C. K.	2
	3	S.	2	C. K.	8		3	NW.	2	N.	10		3	W. NW.	3	C. K.	3
	6	S. SW.	1	C. K.	7		6	S.	1	C. K.	10		6	NW.	2	C. S.	1
	9	S.	1	C. K.	3		9	S.	2	N.	10		9	NW.	2	Clear	0
lar. 19	0	NW.	2	Clear	0	Mar. 20	0	SE.	1	Clear	0	Mar. 21	0	NW.	2	N.	10
	3	NW.	1	Clear	0		3	E.	1	C. K.	5		3	NW.	3	N.	10
	6	N. NW.	1	C. K.	2		6	E.	2	N.	10		6	NW.	5	K.	10
	9	NE.	1	Clear	0		9	N. NE.	1	N.	10		9	NW.	5	N.	10
	Noon	S.	1	C.	2		Noon	N.	1	N.	10		Noon	NW.	5	N.	10
	3	S. SE.	1	C.	2		3	N. NW.	1	N.	10		3	NW.	5	N.	10
	6	E.	1	C. K.	4		6	N. NW.	2	N.	10		6	NW.	4	•C. K. S.	7
	9	E. SE.	1	Clear	0		9	N. NW.	2	N.	10		9	NW.	4	C. S.	3
lar. 22	0	NW.	4	Clear	0	Mar. 23	0	SW.	1	C. K.	4	Mar. 24	0	SW.	1	C. K.	8
	3	NW.	4	Clear	0		3	NW.	1	C. K.	2		3	SW.	1	K.	10
	6	NW.	4	C.	1		6	S. SW.	1	C. K.	5		6	W.	1	K.	10
	9	NW.	5	Clear	0		9	S.	1	Haze			9	NW.	2	Haze	
	Noon	NW.	3	Clear	0		Noon	S. SE.	1	Haze			Noon	N. NW.	1	Haze	
	3	NW.	3	Clear	0		3	S. SW.	2	Haze			3	N.	1	Haze	
	6	W.	1	Clear	0		6	SW.	1	C.	2		6	SE.	1	C. K. S.	6
	9	NW.	1	Clear	0		9	SE.	1	C.	6		9	SE.	1	Clear.	0
lar. 25	0	SE.	1	C. K.	10	Mar. 26	0	NE.	1	N.	10	Mar. 27	0	NW.	1	K.	10
	3	SE.	2	K.	10		3	NE.	1	N.	10		3	NW.	1	N.	10
	6	E.	1	N.	10		6	NE.	2	N.	10		6	NW.	1	N.	10
	9	NE.	1	N.	10		9	N.	1	N.	10		9	E.	1	N.	10
	Noon	NE.	1	N.	10		Noon	NE.	2	C. K.	10		Noon	N. NE.	2	N.	10
	3	NE.	1	N.	10		3	NE.	1	C. K.	10		3	N. NW.	1	N.	10
	6	NE.	1	N.	10		6	E.	1	K.	10		6	N. NW.	1	N.	10
	9	NE.	2	N.	10		9	E.	1	K.	10		9	NW.	1	K.	10

REMARKS.

March 15. Distant lightning at 8^h p. m.
16. Lightning at 9^h 50^m p. m.
17. Several showers after 3^h p. m.
20. Snow and hail during the day. Depth of snow, 3.0 inches. Amount when melted, 0.602 inch.
24. Lightning and thunder from midnight until after 4^h a. m. Shower at 3^h 30^m a. m. Amount, 0.024 inch.
25. A heavy shower of hail in the evening; rain nearly all day. Amount, 0.622 inch.
26. Snow during the morning. Depth of snow, 0.5 inch. Amount when melted, 0.186 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. Mar. 28	0	NW.	1	C. K.	10	1868. Mar. 29	0	NW.	1	C. K.	10	1868. Mar. 30	0	NE.	1	C.	4
	3	NW.	1	C. K.	10		3	NW.	1	C. K.	10		3	N.	1	Clear	0
	6	NW.	1	C. K.	10		6	NE.	1	C. K.	10		6	N.	1	C. K. S.	4
	9	W.	1	C. K.	10		9	N. NE.	1	C. K.	10		9	NE.	2	C. K.	6
	Noon	W.	1	C. K.	10		Noon	NE.	1	C. K.	9		Noon	NE.	2	C. K.	[illegible]
	3	N. NW.	1	C. K.	10		3	NE.	2	C. K.	8		3	N. NE.	2	C. K.	[illegible]
	6	N. NW.	1	C. K.	10		6	SE.	1	C. K.	7		6	N. NW.	1	C. K. S.	[illegible]
	9	NW.	1	C. K.	10		9	SE.	1	C. K.	8		9	NW.	2	C. K.	4
Mar. 31	0	NW.	1	C. K. S.	4												
	3	NW.	1	C. K.	5												
	6	W.	1	C. K.	10												
	9	S.	1	C. K.	4												
	Noon	SW.	1	C. K.	3												
	3	NW.	3	C. K.	3												
	6	N. NW.	2	C. K.	2												
	9	NW.	2	Clear	0												
Apr. 1	0	NW.	2	Clear	0	Apr. 2	0	SW.	1	C. K.	6	Apr. 3	0	NW.	3	C. K.	10
	3	NW.	2	Clear	0		3	SW.	1	C.	4		3	NW.	2	C. K.	10
	6	W.	1	Clear	0		6	SW.	1	Haze			6	NW.	1	C. K. S.	10
	9	SW.	1	C.	2		9	S.	1	Haze			9	N.	1	C.	6
	Noon	NW.	2	C. K.	2		Noon	W.	3	Haze			Noon	S.	1	C. S.	4
	3	SW.	1	C. K.	6		3	W. NW.	3	C. K.	6		3	S.	1	C.	2
	6	SW.	1	C. K. S.	8		6	NW.	2	C. K. S.	10		6	S.	2	C.	1
	9	SE.	1	Haze			9	NW.	3	C. K.	10		9	S.	2	C.	3
Apr. 4	0	S.	1	C.	4	Apr. 5	0	N.	2	N.	10	Apr. 6	0	NW.	1	Clear	0
	3	S.	1	C. K.	10		3	NW.	5	C. K.	10		3	NW.	1	Clear	0
	6	W.	2	C. K.	3		6	NW.	5	C.	2		6	SW.	1	Clear	0
	9	NW.	3	C. K.	3		9	NW.	3	C. K.	3		9	SW.	2	Clear	0
	Noon	SW.	2	C. K.	3		Noon	NW.	3	C. K.	3		Noon	W.	2	C. S.	[illegible]
	3	S.	2	C. K.	3		3	NW.	3	C. K.	4		3	S.	2	C.	2
	6	SW.	2	C. K.	9		6	NW.	3	C. K.	1		6	S.	2	C. K.	[illegible]
	9	SW.	1	C. K.	10		9	NW.	1	Clear	1		9	S.	2	C. K.	[illegible]
Apr. 7	0	SE.	1	C. K.	10	Apr. 8	0	NW.	2	C.	3	Apr. 9	0	N. NW.	3	Clear	0
	3	E.	1	N.	10		3	W.	1	Clear	0		3	N. NW.	1	Clear	0
	6	NE.	2	N.	10		6	W.	3	S.	1		6	N.	2	C. K. S.	[illegible]
	9	NE.	1	N.	10		9	SW.	3	C.	1		9	NW.	2	C. K. S.	10
	Noon	NE.	2	N.	10		Noon	SW.	3	C. K.	2		Noon	NW.	1	C. K.	10
	3	NW.	2	K.	10		3	SW.	5	C. K.	3		3	N.	1	N.	10
	6	NW.	3	C. K. S.	10		6	W. NW.	3	Clear	0		6	SW.	1	N.	10
	9	NW.	3	C. S.	6		9	NW.	4	Clear	0		9	SW.	1	K.	10

REMARKS.

April 4. Began to hail and rain at 11h 45m p. m. Amount, 0.040 inch.
7. Rain from 2h 40m a. m. until 2h 30m p. m. Amount, 0.930 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force					Direction.	Force.					Direction.	Force.		
1868. Apr. 10	0	NE.	1	C. K.	10	1868. Apr. 11	0	NW.	2	K.	10	1868. Apr. 12	0	S.	3	C. K.	10
	3	NE.	1	N.	10		3	NW.	1	Clear	0		3	S.	2	C. K.	9
	6	NE.	1	N.	10		6	W.NW.	1	Clear	0		6	S. SW.	2	C. K.	9
	9	NW.	1	N.	10		9	NW.	2	C.	1		9	S.	2	C.	2
	Noon	NW.	1	N.	10		Noon	S.	1	C.	1		Noon	S. SE.	2	C.	3
	3	W.NW.	1	N.	10		3	S.	2	C.	2		3	N.	3	C. K.	8
	6	NW.	2	C. K.	9		6	S.	1	C.	1		6	NE.	3	N.	10
	9	NW.	3	C. K.	8		9	S.	1	C. S.	2		9	NE.	2	N.	10
Apr. 13	0	NE.	3	N.	10	Apr. 14	0	N.	1	C.	2	Apr. 15	0	SW.	1	K.	10
	3	N.	2	C. K.	8		3	N.	1	C. S.	4		3	S.	1	K.	10
	6	N.	2	C. K.	6		6	S.	1	C. K.	9		6	S.	1	K.	10
	9	N. NE.	2	C. K.	6		9	SE.	1	C. K.	10		9	S.	1	N.	10
	Noon	NE.	2	C. K.	8		Noon	S.	1	C. K.	10		Noon	S.	1	C. K.	10
	3	N.	1	C. K.	7		3	S. SW.	1	N.	10		3	S. SE.	2	N.	10
	6	E. NE.	1	C. K. S.	8		6	S. SW.	1	N.	10		6	S. SW.	3	C. K.	9
	9	N.	1	Clear	0		9	SW.	2	K.	10		9	SW.	2	C. K.	4
Apr. 16	0	SW.	3	C. K.	8	Apr. 17	0	SE.	1	C. K.	8	Apr. 18	0	NW.	2	Clear	0
	3	SW.	2	C. K.	10		3	NW.	1	C. K.	10		3	NW.	2	Clear	0
	6	S.	2	Haze	10		6	NW.	1	C. K.	9		6	NW.	3	Clear	0
	9	S. SW.	1	N.	10		9	W. NW.	1	C. K.	9		9	NW.	3	Clear	0
	Noon	S. SW.	1	N.	10		Noon	S. SW.	1	C. K.	7		Noon	NW.	3	Clear	0
	3	SW.	1	N.	10		3	S.	2	C. K.	2		3	NW.	3	C. S.	2
	6	S. SW.	1	C. K. S.	9		6	NW.	2	C. K.	2		6	NW.	2	C. K.	6
	9	SW.	1	K.	10		9	NW.	2	Clear	0		9	NW.	1	C. K.	4
Apr. 19	0	NW.	1	C. K.	3	Apr. 20	0	E.	1	N.	10	Apr. 21	0	NW.	1	C. K.	10
	3	SW.	1	C. K.	8		3	E.	1	N.	10		3	NW.	2	K.	10
	6	NW.	1	C. K.	9		6	N.	1	N.	10		6	NW.	1	N.	10
	9	E.	1	K.	10		9	NW.	1	N.	10		9	E.	1	N.	10
	Noon	SE.	2	K.	10		Noon	NW.	1	N.	10		Noon	N.	1	N.	10
	3	E. SE.	2	K.	10		3	W. NW.	1	Haze	10		3	NW.	1	N.	10
	6	SE.	1	N.	10		6	NW.	1	C. K.	10		6	NW.	1	C. K.	5
	9	SE.	1	N.	10		9	NW.	2	C. K.	3		9	NW.	1	C. K.	2
Apr. 22	0	NW.	1	Fog		Apr. 23	0	S.	1	Clear	0	Apr. 24	0	N.	3	C. K.	7
	3	NW.	1	Fog			3	S.	1	Clear	0		3	N.	3	C. K.	6
	6	NW.	1	Fog			6	SW.	1	S.	1		6	N. NE.	2	C. K. S.	9
	9	S. SE.	1	Fog			9	S.	2	S.	2		9	NE.	2	C. K. S.	10
	Noon	S.	1	C. K.	2		Noon	S.	3	C. K.	2		Noon	E.	2	C.	2
	3	S.	1	C. K.	2		3	S.	2	C. K.	4		3	SE.	2	C. S.	2
	6	S.	1	C.	2		6	N.	4	C. K. S.	8		6	SE.	2	C. K.	8
	9	S.	1	Clear	0		9	NW.	2	C. K.	2		9	SE.	2	C. K.	3

REMARKS.

April 10. Snow, hail and rain at intervals during the day. Amount, 0.560 inch.

12. Rain at $3^h\ 45^m$ p. m. Amount, 0.110 inch.

14. Rain in the afternoon. Amount, 0.100 inch.

15. Showers during the day and steady rain nearly all day on the 16th. Amount, 0.410 inch. Light showers during the 19th, 20th, and 21st. Amount, 0.286 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. Apr. 25	0	SE.	2	C. K.	3	1868. Apr. 26	0	N.	1	K.	10	1868. Apr. 27	0	W.	1	C. S.	
	3	SE.	2	C. K.	10		3	NW.	1	N.	10		3	W.	1	S.	
	6	E.	1	N.	10		6	NW.	1	C. K.	8		6	SW.	1	C. K.	
	9	SE.	1	N.	10		9	NW.	1	C. K.	6		9	S. SE.	1	C. K.	
	Noon	NE.	1	N.	10		Noon	N. NW.	1	C. K.	5		Noon	S.	2	C. K.	
	3	N. NE.	1	N.	10		3	W.	1	C. K.	4		3	SW.	2	C. K.	
	6	N. NE.	2	K.	10		6	W.	1	C. K.	4		6	S.	1	C. K.	
	9	N. NE.	2	K.	10		9	W.	1	Haze			9	S.	1	Clear	
Apr. 28	0	S. SW.	1	Clear	0	Apr. 29	0	E.	1	C. K.	10	Apr. 30	0	N. NE.	1	N.	
	3	W.	1	C.	1		3	NE.	1	C. K.	10		3	N.	2	N.	
	6	W.	1	Fog			6	NE.	1	N.	10		6	SW.	1	K.	
	9	S.	1	C.			9	N. NE.	1	N.	10		9	S.	1	C. K.	
	Noon	SE.	1	C. K.	10		Noon	NE.	1	C. K.	10		Noon	S. SW.	2	C.	
	3	E. SE.	2	C.	10		3	NE.	1	N.	10		3	SW.	2	C. K.	
	6	S.	2	C. K.	8		6	NE.	1	Fog	10		6	NW.	2	C. K.	
	9	E.	1	C. K.	6		9	N.	1	N.	10		9	NW.	1	Clear	
May 1	0	NW.	2	Clear	0	May 2	0	E.	1	C. K.	4	May 3	0	N. NE.	2	N.	
	3	NW.	3	Clear	0		3	SE.	1	C. K.	8		3	N. NE.	3	N.	
	6	W.	1	Clear	0		6	SE.	1	K.	10		6	NW.	1	N.	
	9	NW.	2	C. K.	4		9	S.	1	C. K.	10		9	N.	1	C. K.	
	Noon	NW.	2	C. K.	1		Noon	SE.	1	C. K.	4		Noon	N. NE.	1	C. K.	
	3	N.	1	C. K.	6		3	NE.	1	C. K.	10		3	E.	1	K.	
	6	E. NE.	1	C. K.	6		6	NW.	1	N.	10		6	SE.	1	C. K.	
	9	SE.	1	C.	1		9	NE.	1	K.	10		9	S. SE.	1	C. K.	
May 4	0	S.	1	C. K.	4	May 5	0	S.	1	K.	10	May 6	0	N.	1	K.	
	3	SW.	1	C. K.	5		3	S.	1	K.	10		3	W. NW.	1	K.	
	6	W. SW.	1	C. K.	6		6	S.	1	N.	10		6	E.	1	K.	
	9	SW.	1	C. K.	10		9	S.	1	C. K.	10		9	S.	1	K.	
	Noon	SW.	1	C. K.	10		Noon	S. SW.	1	C. K.	10		Noon	S.	1	C. K.	
	3	S.	1	C. K.	9		3	SW.	1	N.	10		3	SW.	1	K.	
	6	S.	2	C. K. S.	7		6	E.	1	N.	10		6	NE.	1	C. K.	
	9	S.	1	C. K.	6		9	N.	1	K.	10		9	N. NE.	1	N.	
May 7	0	E.	2	K.	10	May 8	0	NW.	1	N.	10	May 9	0	NW.	1	C. K.	
	3	E.	2	N.	10		3	NW.	1	C. K.	6		3	NW.	1	C. K.	
	6	E.	2	N.	10		6	NW.	2	C. K.	8		6	NW.	1	Clear	
	9	E.	2	N.	10		9	NW.	2	C. K.	8		9	W. NW.	2	C.	
	Noon	NE.	1	K.	10		Noon	NW.	3	C. K.	8		Noon	W. NW.	2	C. K.	
	3	NE.	1	K.	10		3	NW.	3	C. K.	7		3	W. NW.	1	C. K.	
	6	N.	1	N.	10		6	NW.	2	C. K. S.	3		6	W. NW.	1	C. K.	
	9	W.	2	C. K.	7		9	NW.	1	C. K.	5		9	W. NW.	1	C. K.	

REMARKS.

April 25. Began to rain at 5^h 15^m a. m., and continued lightly, at intervals, until 4^h a. m. on the 26th. Amount, 0.146 inch.
29. Light showers in the forenoon. Amount, 0.020 inch.
30. Shower, with lightning and thunder, at 2^h 30^m a. m. Amount, 0.258 inch.
May 2. Heavy shower at 3^h 30^m p. m. Amount, 0.420 inch.
3. Rain in the morning. Amount, 0.330 inch.
5. Light rain at intervals during the day. Amount, 0.046 inch.
6. Began to rain at 7^h 10^m p. m., and continued, at intervals, until 7^h p. m. on the 7th. Amount, 0.902 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868.						1868.											
May 10	0	NW.	1	C. K.	9	May 11	0	NE.	2	C. K.	10	May 12	0	NW.	1	C. K.	3
	3	NW.	1	C. K. S.	3		3	NW.	1	C. K.	6		3	SW.	1	C. K.	4
	6	SW.	1	C. K.	4		6	NW.	1	Clear	0		6	W.	1	C. K.	10
	9	NW.	2	C. K.	8		9	NE.	1	C. K.	2		9	E.	1	C. K.	4
	Noon	NW.	3	C. K.	9		Noon	S. SW.	1	C. K,	1		Noon	E. NE.	2	C. K.	3
	3	NW.	3	C. K.	9		3	S. SW.	2	C. K.	2		3	E.	3	C. K.	6
	6	NW.	1	C. K.	8		6	SE.	2	C. K.	3		6	E.	3	C. K.	9
	9	N.	1	C. K.	4		9	NW.	1	Clear	0		9	E.	3	C. K.	10
May 13	0	E.	3	N.	10	May 14	0	E.	1	N.	10	May 15	0	SW.	1	C. K.	2
	3	E.	3	N.	10		3	SE.	1	K.	10		3	NW.	1	C. K.	9
	6	NE.	3	N.	10		6	S.	4	C. K.	4		6	SE.	1	C. K.	9
	9	NE.	2	N.	10		9	SW.	3	C. K.	3		9	E. SE.	1	N.	10
	Noon	E. NE.	3	N.	10		Noon	S. SW.	3	C. K.	4		Noon	S.	1	C. K.	8
	3	E. NE.	3	K.	10		3	SW.	2	C. K.	7		3	SW.	1	C. K.	10
	6	NE.	2	N.	10		6	S.	1	C. K.	9		6	SW.	1	C. K.	8
	9	E.	1	C. K.	6		9	S. SE.	2	C. K.	9		9	SW.	1	C. K.	10
May 16	0	SW.	1	C. K.	10	May 17	0	E.	1	C. K.	10	May 18	0	SW.	2	C. K.	10
	3	NW.	1	C. K.	10		3	NW.	1	N.	10		3	NE.	2	N.	10
	6	N. NE.	1	C. K.	10		6	NE.	1	N.	10		6	NW.	3	C. K.	2
	9	NE.	1	C. K.	10		9	NW.	1	N.	10		9	NW.	3	C. K.	3
	Noon	N.	1	C. K.	9		Noon	NW.	1	C. K.	10		Noon	NW.	2	C. K.	4
	3	SE.	1	C. K.	7		3	E.	1	C. K.	9		3	NW.	3	C. K.	7
	6	E.	1	C. K.	4		6	N. NE.	1	C. K.	9		6	N. NW.	3	C. K.	4
	9	SE.	1	C. K.	3		9	N.	1	C. K.	3		9	NW.	3	C. K.	3
May 19	0	NW.	1	C. K.	5	May 20	0	NW.	1	C.	4	May 21	0	N.	2	N.	10
	3	NW.	1	C. K.	9		3	NW.	1	C. K.	2		3	NW.	3	K.	10
	6	NW.	1	C. K.	5		6	NW.	1	K.	10		6	NW.	2	C. K.	10
	9	NW.	2	C. K.	10		9	N.	2	C. K.	9		9	NW.	3	C. K.	10
	Noon	NW.	2	C. K.	10		Noon	NE.	3	C. K.	9		Noon	NW.	3	C. K.	4
	3	NW.	2	C. K.	10		3	NE.	3	C. K.	10		3	W. NW.	2	C. K.	6
	6	N. NW.	2	C. K.	10		6	N. NE.	3	N.	10		6	NW.	2	C. K.	5
	9	N.	1	C. K.	7		9	NE.	2	N.	10		9	NW.	1	C. K.	2
May 22	0	NW.	1	C. K.	2	May 23	0	SE.	1	C. K.	10	May 24	0	N.	2	K.	10
	3	SW.	1	C. K.	2		3	S.	1	K.	10		3	NW.	1	K.	10
	6	W. SW.	1	Clear	0		6	NE.	2	N.	10		6	NW.	2	C. K.	9
	9	W. SW.	2	C. K.	2		9	NE.	2	N.	10		9	NW.	1	C. K.	10
	Noon	W. SW.	1	C. K.	3		Noon	NE.	3	N.	10		Noon	W.	1	C. K.	10
	3	SE.	1	C. K.	3		3	NE.	3	N.	10		3	S.	1	C. K.	10
	6	S.	1	C.	4		6	NE.	3	N.	10		6	S.	1	C. K.	7
	9	S.	1	Clear	0		9	NE.	3	N.	10		9	S.	1	C. K.	4

REMARKS.

May 12. Commenced raining at 10^h 45^m p. m., and continued at intervals until 1^h a. m. on the 14th. Amount, 1.462 inch.
17. Rain during the morning. Amount, 0.138 inch.
18. Light showers during the day. Amount, 0.018 inch.
21. Rain during the evening. Amount, 0.042 inch.
23. Began to rain at 3^h 40^m a. m., and continued moderately through the day. Amount, 0.304 inch.
Light showers on the 24th and 25th. Amount, 0.028 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. May 25	0	SE.	1	N.	10	1868. May 26	0	NW.	1	C. K.	8	1868. May 27	0	SW.	1	C. K.	
	3	NW.	1	C. K.	4		3	NW.	1	C. K.	7		3	SE.	1	C. K.	
	6	NW.	2	C. K.	3		6	W.	1	C.	1		6	NE.	1	C. K.	
	9	NW.	2	C. K.	4		9	W. NW.	1	C. K.	1		9	E.	1	C. S.	
	Noon	NW.	2	C. K.	4		Noon	W.	2	C. K.	3		Noon	SE.	2	C.	
	3	NW.	2	C. K.	8		3	W.	2	C. K.	4		3	SE.	3	C.	
	6	NW.	2	C. K.	10		6	SE.	2	C. K.	2		6	SE.	3	C. K.	
	9	N.	1	N.	10		9	SW.	1	C. S.	2		9	SE.	2	N.	
May 28	0	SE.	1	N.	10	May 29	0	NE.	1	N.	10	May 30	0	W.	1	K.	
	3	SE.	1	C. K.	10		3	NE.	1	N.	10		3	NW.	1	C. K.	
	6	NW.	1	C. K.	10		6	NE.	2	N	10		6	W.	1	C. K.	
	9	SW.	1	K.	10		9	N.	2	C. K.	9		9	S.	1	C. K.	
	Noon	S.	1	N.	10		Noon	SW.	1	C. K.	4		Noon	S.	1	C. K.	
	3	NE.	1	C. K.	7		3	SW.	1	C. K.	5		3	S.	1	C. K.	
	6	E.	1	N.	8		6	E.	2	C. K.	10		6	SW.	1	C. K.	
	9	NE.	1	N.	10		9	W. NW.	1	N.	10		9	W. NW.	2	C. K.	
May 31	0	NW.	3	C. K.	3												
	3	NW.	2	C. K.	5												
	6	NW.	3	Clear	0												
	9	NW.	2	C. K.	2												
	Noon	W. NW.	2	C. K.	6												
	3	NW.	2	C. K.	2												
	6	NW.	1	C. S.	2												
	9	NW.	1	Clear	0												
June 1	0	NW.	1	Clear	0	June 2	0	S.	1	C. K.	10	June 3	0	N.	2	C. K.	
	3	NW.	1	C.	1		3	S.	1	C. K.	10		3	NE.	2	C. K.	
	6	NW.	2	C.	3		6	S.	1	C. K.	7		6	N.	3	C. K.	
	9	E.	2	C. K.	3		9	W.	1	C. K.	4		9	N.	2	C. K.	
	Noon	SW.	1	C. K.	1		Noon	NE.	2	C. K.	10		Noon	NE.	1	N.	
	3	S.	1	C.	1		3	NE.	1	C. K.	7		3	NE.	1	K.	
	6	SW.	1	C. K.	4		6	N. NE.	2	C. K.	8		6	E.	1	C. K.	
	9	SW.	1	C. K.	3		9	N. NE.	3	C. K.	5		9	NE.	1	K.	
June 4	0	NE.	1	K.	10	June 5	0	NE.	1	K.	10	June 6	0	S. SW.	1	C. K.	
	3	N.	1	K.	10		3	NE.	1	C. K.	10		3	S. SW.	2	C. K.	
	6	N.	1	K.	10		6	SE.	2	K.	10		6	S. SW.	2	C. K.	
	9	NE.	2	C. K.	9		9	E.	1	K.	10		9	SW.	2	C.	
	Noon	E. NE.	2	C. K. S.	2		Noon	SW.	1	C. K.	10		Noon	SW.	3	C.	
	3	E.	3	C.	3		3	S.	2	C. K.	5		3	SW.	3	C. K.	
	6	E. NE.	3	C. K.	3		6	S.	2	C. K.	8		6	SW.	2	C. K.	
	9	E.	2	C.	2		9	S.	1	C.	2		9	SW.	1	C. K.	

REMARKS.

May 27. A grand display of the aurora borealis about midnight, consisting of "pillars of white light," without streamers, moving slowly from west to the northeast. Heavy shower at 9^h p. m. Amount, 0.808 inch.

28. Several showers during the day. Amount, 0.234 inch.

29. Raining in the morning and evening. Amount, 0.090 inch.

31. Lightning and thunder at 8^h p. m.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. June 7	0	SW.	1	C. K.	8	1868. June 8	0	NW.	1	C. K.	1	1868. June 9	0	SW.	1	C. K.	8
	3	W.	1	C. K.	10		3	NW.	1	C. K.	1		3	S. SW.	1	C. K.	7
	6	NW.	1	K.	10		6	NW.	2	C. K.	10		6	W. SW.	1	C. K.	8
	9	W. SW.	1	C. K.	8		9	E.	1	C. K.	10		9	SW.	1	C. K.	8
	Noon	NW.	2	C. K.	6		Noon	SW.	1	C. K.	7		Noon	S.	1	C. K.	7
	3	N. NE.	1	C. K.	5		3	SE.	1	C. K.	4		3	W.NW.	2	C. K.	9
	6	NW.	2	C. K.	9		6	S.	2	C. K.	7		6	NW.	1	C. K.	8
	9	NW.	1	C. K.	10		9	S.	1	C. K.	7		9	NW.	2	C. K.	9
June 10	0	N.	2	C. K.	8	June 11	0	NE.	3	N.	10	June 12	0	N. NE.	2	N.	10
	3	N.	2	C. K.	6		3	NE.	3	N.	10		3	NW.	1	N.	10
	6	N.	2	C.	4		6	N.	2	N.	10		6	NW.	1	N.	10
	9	NE.	3	C. K.	6		9	N. NW.	2	N.	10		9	NW.	3	C. K.	9
	Noon	NE.	3	C. K.	7		Noon	N.	2	N.	10		Noon	W.	3	C. K. S.	3
	3	NE.	3	C. K.	7		3	N.	3	N.	10		3	NW.	2	C.	1
	6	N. NE.	2	C. K.	10		6	N. NW.	3	N.	10		6	W.	2	Clear	0
	9	NE.	2	N.	10		9	NW.	3	K.	10		9	W.	1	Clear	0
June 13	0	W.	1	Clear	0	June 14	0	SW.	1	C. S.	1	June 15	0	SE.	1	Clear	0
	3	W.	1	Clear	0		3	W.	1	Clear	0		3	E.	1	C.	3
	6	W.	1	Clear	0		6	W.	1	C.	3		6	N. NE.	1	C.	2
	9	W.	1	Clear	0		9	SE.	1	Clear	0		9	SW.	1	C.	1
	Noon	SW.	1	C.	1		Noon	SW.	1	C.	1		Noon	S. SE.	1	C. K.	4
	3	S.	1	Clear	0		3	SE.	2	C.	2		3	S.	1	C. K.	9
	6	SW.	1	Clear	0		6	SE.	1	C. K.	2		6	S.	2	C. K.	6
	9	W.	1	C. S.	1		9	SE.	1	Clear	0		9	S.	1	C. S.	2
June 16	0	SE.	1	C.	1	June 17	0	W.	1	C. K.	3	June 18	0	W.	1	C. K.	9
	3	SE.	1	C.	3		3	W.	1	C. K.	8		3	NW.	1	C. K.	10
	6	SW.	1	C. K.	6		6	W. NW.	1	C. K.	9		6	NW.	1	C. K.	7
	9	W.	1	C. K.	5		9	NW.	1	C. K.	4		9	SW.	1	C. K.	4
	Noon	NW.	2	C. K.	7		Noon	W.	1	C. K.	10		Noon	SW.	1	C. K.	6
	3	W.	1	C. K.	8		3	W.	1	C. K.	10		3	SW.	1	C. K.	7
	6	W. NW.	1	C. K.	6		6	W.	1	C. K.	6		6	SW.	1	C. K.	5
	9	SW.	1	C. K.	4		9	NW.	1	C. K.	4		9	N.	1	C.	1
June 19	0	N.	1	Clear	0	June 20	0	NW.	1	C. K.	2	June 21	0	W.	1	C. K.	6
	3	NE.	1	C.	2		3	NW.	1	Clear	0		3	W. NW.	1	C. K.	4
	6	W.	1	C. K.	10		6	W.	1	C. K.	8		6	W.	1	C. K.	7
	9	SE.	1	C. K.	4		9	NW.	2	C. S.	3		9	W.	1	C. K.	10
	Noon	S.	1	C. K.	4		Noon	W.	1	C.	1		Noon	W.	1	N.	10
	3	S.	2	C. K.	4		3	S. W.	1	C. K.	4		3	NW.	3	N.	10
	6	SW.	3	C. K. N.	10		6	S. W.	2	N.	10		6	W.	1	C. K.	5
	9	NW.	1	C. K. S.	4		9	S. W.	1	C. K.	9		9	W.	1	C. K.	8

REMARKS.

June 7. Rain at 4^h a. m. Heavy shower at 7^h 30^m p. m. Amount, 0.710 inch.
8. A brilliant display of the aurora borealis at midnight.
9. Light shower at 0^h 30^m a. m. Amount, 0.032 inch.
10. Commenced raining at 8^h 40^m p. m. and continued until 8^h p. m. on the 11th Amount, 1.892 inch.
12. Rain during the morning, 0.340 inch.
17. Lightning during the night.
18. Heavy shower, accompanied with lightning and thunder, at 0^h 15^m p. m. Amount, 0.620 inch.
19. Rain, with lightning and thunder, at 5^h 55^m p. m. Amount, 0.200 inch.
20. Shower, with lightning and thunder, at 5^h 35^m p. m. Amount, 0.034 inch.
21. Heavy shower at 2^h 50^m p. m. Amount, 0.514 inch.

Day.	Hour.	Wind.		Weather.	Portion cloudy.	Day.	Hour.	Wind.		Weather.	Portion cloudy.	Day.	Hour.	Wind.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. June 22	0	W.	1	Clear	0	1868. June 23	0	NW.	2	S.	1	1868. June 24	0	NW.	2	C. K.	
	3	W.	2	C. K.	4		3	NW.	2	C. S.	2		3	NW.	1	C. K.	
	6	W.	1	C. K.	5		6	W.	1	Clear	0		6	NW.	1	C. K.	
	9	NW.	4	C. K.	4		9	NW.	2	Clear	0		9	SW.	1	C. K.	
	Noon	NW.	3	C. K.	3		Noon	W. NW.	2	C.	1		Noon	W. SW.	1	C. K.	
	3	W.	3	C. K.	4		3	NW.	1	C. K.	4		3	SW.	1	C. K.	
	6	W. NW.	3	C. K.	2		6	W. SW.	1	C. K.	3		6	NW.	3	N.	
	9	NW.	2	C. K. S.	2		9	W.	1	C. K.	2		9	N.	1	C.	
June 25	0	N.	1	K.	10	June 26	0	N.	1	C. K.	3	June 27	0	W. NW.	1	Clear	
	3	N.	2	C. K.	8		3	N. NW.	1	C. K.	7		3	W.	1	C. K.	
	6	N.	2	C. K.	4		6	NW.	1	C. K.	8		6	W.	1	C. K.	
	9	NE.	2	C. K.	9		9	W.	1	C. K.	4		9	W. NW.	1	C. K.	
	Noon	NE.	3	C. K.	7		Noon	W.	1	C. K.	6		Noon	SW.	1	C. K.	
	3	NE.	3	C. K.	7		3	SE.	1	C. K.	8		3	SW.	1	C. K.	
	6	E.	2	C. K.	8		6	S.	1	C. K.	3		6	NW.	1	C. K.	
	9	NE.	1	C. K.	3		9	S.	1	Clear	0		9	NW.	1	C. K.	
June 28	0	NW.	2	C.	3	June 29	0	NW.	2	Clear	0	June 30	0	NE.	1	C. K.	
	3	N.	1	C. K.	8		3	NW.	1	Clear	0		3	NE.	1	C. K.	
	6	NE.	1	N.	10		6	NW.	1	C. K.	10		6	NE.	1	C. K.	
	9	W.	2	C.	4		9	E.	1	Clear	0		9	S.	1	C. K.	
	Noon	W.	1	C. K.	2		Noon	SE.	2	C. K.	4		Noon	E.	1	C. K.	
	3	N.	2	C. K.	4		3	SE.	2	C. K.	4		3	SE.	2	C. K.	
	6	N.	1	C. K.	4		6	S.	2	C. K. S.	4		6	S.	1	K.	
	9	NW.	1	Clear	0		9	S.	2	C.	2		9	SE.	2	C. K.	
July 1	0	SE.	1	K.	10	July 2	0	SW.	1	C.	3	July 3	0	S.	1	C. K.	
	3	E.	1	K.	10		3	SW.	1	C.	3		3	SW.	1	C. K.	
	6	NE.	1	K.	10		6	SW.	1	C.	7		6	NW.	1	C. K.	
	9	W.	2	C. K.	5		9	SW.	1	C. S.	4		9	SW.	1	C.	
	Noon	SW.	1	C. K.	3		Noon	S.	1	C. K.	4		Noon	SW.	1	C. K.	
	3	S.	1	C. K.	2		3	SW.	1	C. K.	7		3	S.	2	C. K.	
	6	S.	1	C. K.	2		6	SE.	2	C. K.	4		6	SW.	1	C.	
	9	NW.	1	Clear	0		9	S.	1	C.	3		9	W.	1	C.	
July 4	0	W.	1	C. K.	6	July 5	0	SW.	1	Clear	0	July 6	0	N. NE.	2	N.	
	3	W.	1	C.	4		3	SW.	1	C. S.	1		3	W. SW.	1	C. K.	
	6	SW.	1	C. K.	6		6	W. SW.	1	C. S.	5		6	W. SW.	1	C. K.	
	9	SW.	1	C. K.	3		9	W.	1	C. K. S.	6		9	SW.	1	C. K.	
	Noon	SE.	2	C. K.	2		Noon	W.	1	C. K.	6		Noon.	SW.	1	C. K.	
	3	S.	2	C. K.	2		3	S.	2	C. K.	4		3	SW.	1	C. K.	
	6	SW.	1	C. K.	2		6	SW.	1	C. K.	7		6	SW.	1	C. K.	
	9	SW.	1	C. K.	5		9	NE.	3	N.	10		9	SW.	1	C. K.	

REMARKS.

June 24. Rain in the evening. Amount, 0.132 inch.
27. Light shower at 1ʰ 10ᵐ p. m. Amount, 0.060 inch.
July 5. Several light showers during the evening. Amount, 0.044.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. July 7	0	W.	1	C.	4	1868. July 8	0	SW.	1	C. K.	9	1868. July 9	0	SW.	3	C. K.	9
	3	SW.	1	C.	2		3	SW.	1	C. K.	8		3	W. SW.	2	N.	10
	6	SW.	1	C. K.	6		6	SW.	1	C. K.	9		6	W. SW.	1	C. K.	8
	9	S.	2	C. K.	4		9	W.	1	C. K.	5		9	SW.	1	C. K.	9
	Noon	S.	2	C. K.	3		Noon	W.	1	C. K.	8		Noon	SW.	1	C. K.	10
	3	S.	3	C. K.	3		3	SW.	1	C.	2		3	S. SW.	1	C. K.	9
	6	S.	1	C. K.	10		6	S.	2	C. K.	5		6	SW.	1	C. K.	10
	9	SE.	2	C. K. S.	8		9	S. SW.	2	C. K.	8		9	W.	1	C. S.	2
July 10	0	W.	1	C. K.	6	July 11	0	W. NW.	1	C. K.	9	July 12	0	SW.	2	C. K.	4
	3	NW.	1	K.	10		3	W. NW.	1	C. K.	10		3	SW.	1	C. K.	3
	6	N.	1	K.	10		6	W. NW.	1	C.	1		6	SW.	1	Clear	0
	9	NE.	2	C. K.	9		9	W.	1	C. K.	4		9	SW.	1	C.	6
	Noon	NE.	1	C. K.	9		Noon	S. SW.	1	C. K.	6		Noon	S. SE.	1	C. K.	7
	3	E. NE.	2	C. K.	9		3	SW.	1	C. K.	7		3	S.	2	C. K.	7
	6	E.	2	C. K.	9		6	SW.	1	C.	4		6	S. SW.	1	C. K.	7
	9	SW.	1	C. S.	3		9	SW.	1	C. K.	3		9	SW.	1	C.	1
July 13	0	SW.	1	C.	2	July 14	0	W. SW.	1	C.	2	July 15	0	NW.	1	C.	3
	3	W.	1	Clear	0		3	W. SW.	1	C.	3		3	W.	1	Clear	0
	6	SW.	1	C. K.	4		6	W. SW.	1	C.	6		6	W.	1	Clear	0
	9	SW.	1	C.	4		9	W.	1	Clear	0		9	W. SW.	1	C.	1
	Noon	S.	1	C. K.	2		Noon	W.	1	Clear	0		Noon	S.	1	C. K.	7
	3	S. SW.	2	C. K.	2		3	SW.	1	C.	1		3	S.	1	C. K.	8
	6	SW.	1	C. K.	6		6	S. SE.	1	C.	3		6	S. SW.	1	C. K.	2
	9	W.	1	C. S.	1		9	S.	1	C.	2		9	SW.	1	C.	1
July 16	0	S.	1	C. K.	4	July 17	0	NE.	2	Haze		July 18	0	S. SW.	1	C. K.	3
	3	W.	1	C.	2		3	NW.	1	Haze			3	S. SW.	1	C. K.	4
	6	W.	2	Haze			6	NW.	1	C. K.	8		6	SW.	1	Haze	
	9	NW.	2	Clear	0		9	N.	1	C. K.	4		9	SW.	1	Haze	
	Noon	NW.	3	C. K.	5		Noon	E.	1	C.	3		Noon	S. SE.	2	C. K.	1
	3	NW.	2	C. K.	4		3	SE.	1	C.	2		3	S.	1	C. K.	2
	6	N.	2	Haze			6	S.	1	Clear	0		6	S.	1	Haze	
	9	N.	2	Haze			9	SE.	2	C. K.	2		9	S.	2	Clear	0
July 19	0	S.	1	Clear	0	July 20	0	NW.	1	C. K.	10	July 21	0	E.	2	C. K.	10
	3	SW.	1	Clear	0		3	NW.	1	C. K.	10		3	S. SE.	1	C. K.	8
	6	SW.	1	Clear	0		6	NW.	1	C. K.	7		6	E.	1	C. K.	9
	9	SW.	1	Haze			9	N. NE.	2	C. K.	10		9	S.	1	C. K.	9
	Noon	S. SW.	1	Clear	0		Noon	NE.	2	C. K.	10		Noon	S.	1	C. K.	7
	3	S.	2	Clear	0		3	SE.	1	C. K.	10		3	S.	1	C. K.	10
	6	S. SW.	1	C. K.	8		6	SE.	1	C. K.	4		6	S.	1	C. K.	9
	9	NW.	1	K.	10		9	SE.	2	C. K.	8		9	SE.	2	C. K.	4

REMARKS.

July 9. Light showers at 0^h 40^m and 2^h 45^m a. m. Amount, 0.048 inch.
19. A light shower at 6^h 40^m p. m.
20. A light shower at 2^h 30^m a. m.; lightning during the night.
21. Lightning from 8^h 50^m p. m. until daylight on the 22d.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. July 22	0	SW.	1	C. K.	6	1868. July 23	0	NW.	1	Clear	0	1868. July 24	0	E. SE.	2	C. K.	
	3	W.	1	C. K.	4		3	NW.	1	Clear	0		3	E.	1	N.	
	6	W.	1	Fog			6	W. NW.	1	C. K.	9		6	SE.	2	C. K.	
	9	S. SW.	1	C. K.	5		9	W.	1	C. K.	5		9	S.	2	C. K.	
	Noon	S.	1	C. K.	7		Noon	S.	1	C. K.	4		Noon	S.	2	C. K.	
	3	SE.	1	C. K.	7		3	S.	1	C. K.	4		3	S. SW.	1	N.	
	6	SE.	2	N.	10		6	SE.	2	C. K.	6		6	E.	1	K.	
	9	W. SW.	1	C. K. S.	3		9	SE.	2	C. K.	4		9	W.	1	K.	
July 25	0	W.	1	N.	10	July 26	0	NW.	1	Clear	0	July 27	0	NE.	1	K.	
	3	W.	1	K.	10		3	NW.	1	C. K.	8		3	NE.	1	N.	
	6	NW.	2	K.	10		6	N.	2	C. K.	10		6	NE.	2	N.	
	9	NW.	2	C. K.	9		9	NE.	2	C. K.	10		9	N. NE.	2	N.	
	Noon	NW.	1	C. K.	8		Noon	NE.	2	C. K.	10		Noon	NE.	2	N.	
	3	E. NE.	1	C. K.	7		3	NE.	1	C. K.	10		3	NW.	1	N.	
	6	SE.	1	C. K.	3		6	N.	1	K.	10		6	N. NW.	2	C. K.	
	9	SW.	1	C. S.	4		9	NE.	1	K.	10		9	NW.	2	C. K.	
July 28	0	NW.	1	C. K.	8	July 29	0	NW.	1	Haze		July 30	0	W.	1	Haze	
	3	NW.	1	C. K.	6		3	NW.	1	Haze			3	W.	1	Haze	
	6	NW.	2	C. K.	8		6	NW.	1	Haze			6	W.	1	K.	
	9	NW.	2	Haze			9	W.	1	Haze			9	W.	1	Haze	
	Noon	N. NW.	2	Haze			Noon	W.	1	Haze			Noon	S.	1	C. K.	
	3	NW.	1	Haze			3	W.	1	Haze			3	S. SW.	2	C. K.	
	6	NW.	1	Haze			6	SW.	1	Haze			6	S.	1	C. K.	
	9	NW.	1	Haze			9	W.	1	Haze			9	S.	2	C.	
July 31	0	S.	1	Haze													
	3	S.	1	Haze													
	6	SW.	1	C. K.	8												
	9	SW.	1	C. K.	6												
	Noon	W.	1	C. K.	10												
	3	SW.	1	C. K.	7												
	6	W.	1	N.	10												
	9	W.	1	C. K.	4												
Aug. 1	0	SW.	1	C. K.	8	Aug. 2	0	W.	1	C. K.	10	Aug. 3	0	SW.	1	C. K.	
	3	SW.	1	C. K.	10		3	W.	1	N.	10		3	SW.	1	C. K.	
	6	SW.	1	C. K.	9		6	W.	1	N.	10		6	SW.	1	C. K.	
	9	SW.	1	C. K.	9		9	SW.	1	K.	10		9	S. SW.	1	C. K.	
	Noon	SW.	1	C. K.	8		Noon	SW.	2	C. K.	10		Noon	S. SW.	1	C. K.	
	3	SW.	2	C. K.	4		3	SW.	1	C. K.	10		3	SE.	1	C. K.	
	6	SW.	1	C. K.	8		6	SW.	1	C. K. S.	10		6	SE.	1	C. K.	
	9	W. NW.	2	K.	10		9	SW.	1	C. K.	8		9	SW.	1	C. K.	

REMARKS.

July 22. Light showers at 2^h and 3^h p. m., and a heavy shower at 5^h p. m. Amount, 1.100 inch.
24. Light shower at 1^h 30^m a. m., and a heavy shower at 0^h 30^m p. m. Amount, 2.104 inches.
26. Commenced raining at 9^h 20^m p. m., and continued until 3^h p. m. on the 27th. Amount, 1.080 inch.
31. Heavy shower at 4^h p. m. Amount, 0.760 inch.
August 1. Light shower at 7^h 50^m p. m. Much lightning and thunder.
2. Raining moderately during the morning. Amount, 0.050 inch.

Day.	Hour.	WIND. Direction.	WIND. Force.	Weather.	Portion cloudy.	Day.	Hour.	WIND. Direction.	WIND. Force.	Weather.	Portion cloudy.	Day.	Hour.	WIND. Direction.	WIND. Force.	Weather.	Portion cloudy.
1868. Aug. 4	0	S.	1	N.	10	1868. Aug. 5	0	SW.	1	C. K.	4	1868. Aug. 6	0	NW.	1	Haze	
	3	SW.	1	N.	10		3	SW.	1	K.	10		3	NW.	1	Haze	
	6	S.	1	N.	10		6	SW.	1	K.	10		6	W.	1	Fog	
	9	SW.	1	N.	10		9	SW.	1	K.	10		9	NE.	1	C. K.	7
	Noon	S. SE.	1	C. K.	9		Noon	S. SW.	1	C. K.	10		Noon	SW.	1	C. K.	7
	3	S.	1	C. K.	5		3	NE.	2	C. K.	8		3	E.	2	C. K.	7
	6	SE.	1	C. K. S.	10		6	W.	1	N.	10		6	SE.	1	C. K.	5
	9	SE.	1	N.	10		9	NW.	1	C. S.	2		9	NW.	1	C.	4
Aug. 7	0	W.	1	C. K.	6	Aug. 8	0	SW.	1	C. K.	8	Aug. 9	0	S.	3	C. K.	10
	3	W.	1	C. K.	8		3	SW.	1	C. K.	10		3	S.	2	C. K.	10
	6	W.	1	C. K.	6		6	SW.	1	K.	10		6	S.	1	C.	6
	9	S. SW.	1	C. K.	7		9	SW.	1	N.	10		9	S.	1	C. K.	6
	Noon	S.	1	C. K. N.	7		Noon	SW.	1	C. K.	8		Noon	S.	1	C. K.	4
	3	NE.	2	N.	10		3	S.	1	C. K.	7		3	S.	2	C. K.	4
	6	S.	2	C. K.	6		6	SW.	1	C. K.	8		6	W.	1	C. K.	7
	9	SW.	1	C.	2		9	NE.	2	C. K.	9		9	NW.	2	C. K.	4
Aug. 10	0	W.	1	C. K.	8	Aug. 11	0	SW.	1	C. K.	7	Aug. 12	0	NW.	2	C. K.	10
	3	NW.	2	C.	3		3	SW.	1	C. K.	7		3	NW.	3	C. K.	6
	6	W.	1	C. K.	6		6	W.	1	Fog	10		6	NW.	2	C. K.	4
	9	NW.	1	C. K.	3		9	S.	1	C. K.	7		9	NW.	3	C. K.	3
	Noon	W. SW.	1	C. K.	6		Noon	W.	1	C. K.	6		Noon	NW.	3	C. K.	4
	3	S.	1	C. K.	7		3	SW.	1	C. K.	7		3	NW.	3	C. K.	4
	6	SE.	1	C. K.	10		6	SW.	1	C. K.	10		6	NW.	2	C.	1
	9	S. SW.	1	C. K. S.	9		9	SW.	1	C. K.	6		9	NW.	2	S.	1
Aug. 13	0	NW.	2	C. K. S.	3	Aug. 14	0	NW.	1	Clear	0	Aug. 15	0	NW.	1	Clear	0
	3	NW.	3	Clear	0		3	NW.	1	Clear	0		3	NW.	1	Clear	0
	6	NW.	2	Clear	0		6	SW.	1	C. S.	3		6	W.	1	Clear	0
	9	NW.	1	Clear	0		9	NW.	2	C. K.	4		9	SW.	1	Clear	0
	Noon	W. NW.	2	C. K.	2		Noon	W. SW.	1	C. K.	2		Noon	SE.	1	C. K.	2
	3	NW.	2	Clear	0		3	S.	1	C. K.	2		3	S. SE.	2	C. K.	2
	6	NW.	1	Clear	0		6	S.	1	C. K.	2		6	S.	1	C. K.	2
	9	NW.	1	Clear	0		9	S. SW.	1	Clear	0		9	S.	1	S.	1
Aug. 16	0	SW.	1	C. K.	10	Aug. 17	0	W.	1	C. K.	3	Aug. 18	0	SE.	1	C. K.	10
	3	SW.	1	Clear	0		3	NW.	1	C. K.	2		3	S.	1	C. K.	10
	6	SW.	1	Clear	0		6	NW.	1	C. K. S.	4		6	S. SW.	1	C. K.	8
	9	SW.	1	C. K.	4		9	NE.	2	C. K.	4		9	S. SE.	2	C. K.	4
	Noon	W.	2	C. K.	5		Noon	NE.	2	C. K.	4		Noon	S.	2	C. K.	3
	3	NW.	2	C. K.	7		3	SE.	1	C. K.	5		3	S.	2	C. K.	3
	6	S.	1	C. K.	8		6	SE.	1	C. K.	6		6	S.	2	C. K.	7
	9	SW.	1	C. K.	2		9	SE.	1	C.	2		9	S.	2	C. K.	1

REMARKS.

August 4. Began to rain at midnight, and continued at intervals until 10^{h} p. m. Amount, 1.624 inch.
5. Light rain with thunder at 5^{h} 30^{m} p. m.
6. Thunder at 2^{h} p. m.
7. Showers at 4^{h} and 11^{h} 30^{m} a. m. and 3^{h} p. m. Amount, 0.680 inch.
8. Lightning during the night. Several light showers during the day.
9. Lightning and thunder during the night.
16. Lightning during the latter part of the evening.

Day.	Hour.	Wind.		Weather.	Portion cloudy.	Day.	Hour.	Wind.		Weather.	Portion cloudy.	Day.	Hour.	Wind.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868.						1868.						1868.					
Aug. 19	0	S.	2	C. K.	4	Aug. 20	0	S.	1	C. K.	4	Aug. 21	0	SW.	1	C. K.	
	3	S.	2	C. K. S.	10		3	SE.	2	C. K.	10		3	SW.	1	C. K.	
	6	S.	2	C. K. S.	6		6	S.	2	C. K.	8		6	W.	1	N.	
	9	SW.	2	C. K.	7		9	SW.	2	C. K.	9		9	NW.	1	C. K.	
	Noon	S. SW.	2	C. K.	6		Noon	SW.	2	C. K.	9		Noon	NW.	1	C. K.	
	3	S.	2	C. K.	3		3	S. SW.	1	C. K.	9		3	N.	1	C. K.	
	6	S. SW.	2	C. K.	4		6	SW.	1	C. K. S.	10		6	NE.	1	C. K.	
	9	S.	1	C. K.	8		9	SW.	1	C. K. S.	3		9	NW.	1	C.	
Aug. 22	0	NW.	1	C. K.	4	Aug. 23	0	N.	1	Clear	0	Aug. 24	0	W.	1	K.	
	3	NW.	1	Clear	0		3	NW.	1	Clear	0		3	W.	1	N.	
	6	NW.	1	Clear	0		6	W. NW.	1	C. K.	4		6	W. NW.	1	K.	
	9	N. NE.	1	C. K.	3		9	W. SW.	1	C. K.	5		9	N. NW.	1	C. K.	
	Noon	NE.	2	C. K.	10		Noon	S.	1	C. K.	10		Noon	SW.	1	C. K.	
	3	NE.	2	N.	10		3	SW.	1	C. K.	10		3	S.	1	C. K.	
	6	N.	1	C. K.	7		6	SW.	1	K.	10		6	SW.	1	C. K.	
	9	N.	1	C. K.	3		9	SW.	1	K.	10		9	SW.	1	C. K.	
Aug. 25	0	SW.	1	C. K.	8	Aug. 26	0	SW.	1	C. K.	8	Aug. 27	0	SW.	1	C. K.	
	3	SW.	1	C. K.	5		3	SW.	1	K.	10		3	SW.	1	Haze	
	6	W.	1	C. K.	10		6	W.	1	C. K.	10		6	SW.		Fog	
	9	W.	1	C. K.	10		9	W.	1	C. K.	10		9	S. SW.		Fog	
	Noon	S.	1	C. K.	7		Noon	S.	1	C. K.	9		Noon	SE.	1	C. K.	
	3	S.	1	C. K.	5		3	S. SW.	1	C. K.	7		3	S.	1	C. K.	
	6	SE.	1	C. K.	8		6	SE.	2	C. K.	7		6	SE.	1	C. K.	
	9	SE.	1	C. K.	4		9	SE.	1	C. K.	6		9	E.	3	C. K.	
Aug. 28	0	E.	2	K.	10	Aug. 29	0	E.	1	N.	10	Aug. 30	0	S.	1	C. K.	
	3	E.	1	K.	10		3	E.	1	N.	10		3	SW.	1	C. K.	
	6	E.	1	K.	10		6	W.	1	C. K.	10		6	SW.	1	C. K.	
	9	NE.	1	K.	10		9	W.	1	C. K.	9		9	S. SW.	1	C. K.	
	Noon	E. SE.	2	C. K.	10		Noon	S.	1	C.	4		Noon	S. SW.	1	C. K.	
	3	SE.	1	C. K.	10		3	S. SE.	1	C. K.	6		3	SE.	1	C. K.	
	6	E.	1	C. K.	10		6	S.	1	C. K. S.	10		6	SW.	1	C. K.	
	9	E.	1	N.	10		9	S.	1	C K.	6		9	SW.	1	C. K.	
Aug. 31	0	W. SW.	1	C. K.	8												
	3	W.	1	C. K.	6												
	6	SW.	1	C. K.	8												
	9	S.	1	C. K.	8												
	Noon	S.	2	C. K.	1												
	3	S.	2	C. K.	2												
	6	S.	1	C. K.	2												
	9	SW.	1	C. K.	0												

REMARKS.

August 20. A few drops of rain at $10^{h}\ 16^{m}$ a. m.

21. Rain at 6^{h} a. m. and 7^{h} p. m. Amount, 0.903 inch.

22. Several light showers during the day. Amount, 0.008 inch.

28. Rain from $7^{h}\ 12^{m}$ p. m. until $3^{h}\ 30^{m}$ a. m. on the 29th. Amount, 1.212 inch.

30. Heavy shower with lightning and thunder at $0^{h}\ 50^{m}$ p. m. Amount, 0.292 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868.						1868.						1868.					
Sept. 1	0	S. SW.	1	C. K.	5	Sept. 2	0	SW.	1	C. K.	10	Sept. 3	0	NE.	2	K.	10
	3	SW.	1	C. K.	5		3	SW.	1	K.	10		3	NE.	1	N.	10
	6	SW.	1	C. K.	7		6	W.	1	N.	10		6	NE.	1	N.	10
	9	SW.	1	C. K.	10		9	W.	1	C. K.	7		9	E.	2	N.	10
	Noon	W.	1	C. K.	9		Noon	S. SW.	1	C. K.	8		Noon	S.	2	C. K.	10
	3	W.	1	N.	10		3	SW.	1	C. K.	8		3	S.	1	N.	9
	6	W.	1	N.	10		6	E.	1	C. K.	9		6	S.	1	C. K.	8
	9	W. NW.	1	C. K. S.	10		9	NE.	1	C. K.	8		9	NW.	3	N.	10
Sept. 4	0	W. NW.	1	C. K.	9	Sept. 5	0	W.	1	C. K.	10	Sept. 6	0	W.	1	C. K.	4
	3	W. NW.	1	N.	10		3	NW.	2	C. K.	4		3	W.	1	C. K.	6
	6	SW.	1	C. K.	9		6	NW.	2	Clear	0		6	W.	1	C. K.	8
	9	W. NW.	1	N.	10		9	NW.	1	C.	2		9	S. SW.	1	C.	6
	Noon	SW.	1	C. K.	9		Noon	W.	2	C.	1		Noon	SW.	1	C. K.	2
	3	SW.	1	N.	10		3	NW.	2	C. K.	1		3	SW.	1	C. K.	5
	6	E. SE.	1	C. K.	10		6	W.	1	C. S.	2		6	S. SW.	1	C. K.	3
	9	NW.	1	K.	10		9	W.	1	Clear	0		9	S.	1	C. K.	3
Sept. 7	0	S. SW.	1	C. K.	4	Sept. 8	0	NW.	2	Clear	0	Sept. 9	0	S.	1	C.	1
	3	S. SW.	1	C. K	9		3	NW.	1	Clear	0		3	S.	1	C. K.	6
	6	SW.	1	C. K.	9		6	NW.	1	Clear	0		6	SE.	1	K.	10
	9	SW.	1	C. K.	9		9	E. NE.	1	C. K.	4		9	SW.	1	C. K.	10
	Noon	W.	2	C. K.	4		Noon	SE.	1	C.	3		Noon	S.	1	C. K.	10
	3	NW.	2	C.	1		3	S.	1	C. K.	4		3	S.	1	C. K.	9
	6	NW.	1	C. S.	2		6	S. SE.	2	S.	1		6	S.	1	N.	10
	9	NW.	1	Clear	0		9	SE.	1	S.	1		9	S. SE.	1	N.	10
Sept. 10	0	W.	1	C. K.	7	Sept. 11	0	W.	1	Clear	0	Sept. 12	0	NW.	1	N.	10
	3	W.	1	C. K.	4		3	SW.	1	C. K.	3		3	NW.	1	C. K.	4
	6	SW.	1	C. K.	4		6	SW.	1	C. K.	2		6	W.	1	C. S.	5
	9	SW.	1	C. K.	8		9	S.	1	C. K.	4		9	SW.	1	C. K.	6
	Noon	SW.	2	C. K.	6		Noon	S.	2	C. K.	6		Noon	S.	1	C. K.	7
	3	SW.	2	C. K.	8		3	S.	2	C. K.	4		3	SW.	2	C. K.	4
	6	S. SW.	1	C. K.	3		6	S.	1	C. K.	7		6	NW.	2	N.	10
	9	SW.	1	C.	2		9	NW.	1	C. K.	9		9	W.	1	C. K.	3
Sept. 13	0	SW.	1	C.	2	Sept. 14	0	SW.	1	C. K.	6	Sept. 15	0	NE.	2	K.	10
	3	SW.	1	C. K.	3		3	W.	1	C. K.	10		3	NE.	2	K.	10
	6	SW.	1	C. K.	7		6	NW.	1	C. K.	10		6	N.	1	K.	10
	9	SW.	1	C. S.	4		9	NW.	1	N.	10		9	N. NE.	2	C. K.	10
	Noon	NW.	1	C. K.	6		Noon	N.	2	N.	10		Noon	E. NE.	1	C. K.	10
	3	NW.	1	N.	10		3	N.	2	N.	10		3	SE.	1	C. K.	10
	6	W.	1	C. K. N.	9		6	NE.	2	N.	10		6	SE.	1	K.	10
	9	W.	1	K.	10		9	NE.	2	N.	10		9	SE.	1	K.	10

REMARKS.

September 2. Lightning during the night.
3. Began to rain at 3^h a. m., and continued, at intervals, until 3^h p. m. on the 4th. Amount, 1.412 inch.
7. A light shower at 6^h 50^m p. m. Amount, 0.038 inch.
9. Rain at 5^h 40^m p. m., with lightning and thunder. Amount, 0.082 inch.
11. Lightning and thunder during the night.
12. Rain at midnight and at 6^h p. m. Amount, 0.568 inch.
13. Several showers during the day. Amount, 0.960 inch.
14. Rain after 9^h a. m. Amount, 0.800 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. Sept. 16	0	SE.	1	K.	10	1868. Sept. 17	0	NW.	3	K.	10	1868. Sept. 18	0	NW.	1	Clear	
	3	SE.	1	K.	10		3	NW.	3	K.	10		3	NW.	1	Clear	
	6	SW.	1	K.	10		6	NW.	2	C. K.	8		6	W.	1	Clear	
	9	SW.	1	K.	10		9	NW.	2	C. K.	2		9	E. SE.	2	Clear	
	Noon	W.	3	C. K.	7		Noon	NW.	2	C. K.	6		Noon	E. SE.	1	C. K.	
	3	NW.	5	C. K.	6		3	NW.	2	C. K.	7		3	S.	1	C. K.	
	6	NW.	3	C. K. S.	3		6	NW.	1	C. K.	8		6	NE.	1	C.	
	9	NW.	2	C. K.	9		9	NW.	1	Clear	0		9	SW.	1	Clear	
Sept. 19	0	NW.	1	Clear	0	Sept. 20	0	SW.	1	C. K.	10	Sept. 21	0	W.	1	C.	
	3	NW.	1	Clear	0		3	S. SW.	1	Clear	0		3	NW.	1	C. K.	
	6	W.	1	C. K.	6		6	S.	1	C. S.	2		6	NW.	1	K.	
	9	S.	1	C.	4		9	S. SW.	2	C. K.	9		9	NW.	3	C. K.	
	Noon	S.	1	C.	2		Noon	SW.	2	C. K.	9		Noon	NW.	3	C. K.	
	3	S.	1	C. K.	4		3	W.	1	N.	10		3	N.	2	C. K.	
	6	S.	2	C. S.	1		6	SW.	2	N.	10		6	N. NW.	1	C. K. S.	
	9	S.	1	C. S.	2		9	SW.	1	K.	10		9	NW.	1	C. K.	
Sept. 22	0	SW.	1	C. K.	4	Sept. 23	0	E. SE.	2	N.	10	Sept. 24	0	NW.	2	C. S.	
	3	N. NE.	1	C. K.	10		3	SE.	2	K.	10		3	NW.	2	C. K.	
	6	N.	1	C. K.	10		6	SW.	1	C. K.	9		6	NW.	1	K.	
	9	S. SE.	1	K.	10		9	W. NW.	1	C. K.	8		9	NE.	2	K.	
	Noon	S. SE.	1	K.	10		Noon	W.	1	C. K.	9		Noon	NE.	2	K.	
	3	S.	2	K.	10		3	SE.	1	C. K.	8		3	N. NE.	2	K.	
	6	SE.	2	N.	10		6	NW.	2	C. K.	10		6	N. NW.	1	N.	
	9	E. SE.	2	N.	10		9	NW.	2	C. K. S.	6		9	SE.	1	N.	
Sept. 25	0	NE.	1	N.	10	Sept. 26	0	NW.	2	K.	10	Sept. 27	0	N.	1	N.	
	3	NE.	1	K.	10		3	NW.	2	K.	10		3	N.	1	N.	
	6	W. NW.	1	N.	10		6	NW.	2	N.	10		6	NW.	1	N.	
	9	SW.	1	C. K.	10		9	N. NW.	1	C. K.	10		9	W.	1	K.	
	Noon	SE.	2	C. S.	4		Noon	NW.	1	C. K.	10		Noon	W.	1	K.	
	3	S.	1	C. K.	9		3	E.	1	N.	10		3	W.	1	C. K.	
	6	SW.	1	C. K.	10		6	E.	1	N.	10		6	SW.	1	C. K.	
	9	NW.	3	C. K.	10		9	NE.	1	N.	10		9	SW.	2	K.	
Sept. 28	0	SW.	2	C. K.	10	Sept. 29	0	NW.	2	Clear	0	Sept. 30	0	W.	1	Clear	
	3	SW.	1	C. K.	10		3	NW.	2	C. K.	1		3	W.	1	Clear	
	6	SW.	1	K.	10		6	NW.	2	C. S.	2		6	W.	1	Fog	
	9	S. SW.	1	C. K.	8		9	NW.	2	Clear	0		9	S. SE.	1	C.	
	Noon	S.	1	C.	1		Noon	W. NW.	2	C. K.	4		Noon	S.	2	C.	
	3	SW.	1	C. K.	8		3	W. NW.	2	C. K.	3		3	SW.	3	Clear	
	6	W. NW.	1	C. K. S.	6		6	W.	1	Clear	0		6	S.	1	C. K.	
	9	NW.	3	C. K.	2		9	NW.	1	Clear	0		9	S. SW.	1	C. K.	

REMARKS.

September 20. Raining at 1h 50m p. m. Amount, 0.150 inch.
22. Began to rain at 6h p. m., and continued until midnight. Amount, 0.334 inch.
23. Shower at 2h 20m p. m. Amount, 0.200 inch.
24. Rain at 4h p. m., continuing lightly at intervals until the morning of the 27th. Amount, 1.552 inch.

Day.	Hour.	WIND. Direction.	Force.	Weather.	Portion cloudy.	Day.	Hour.	WIND. Direction.	Force.	Weather.	Portion cloudy.	Day.	Hour.	WIND. Direction.	Force.	Weather.	Portion cloudy.
1868.						1868.						1868.					
Oct. 1	0	S. SW.	1	C. K. S.	3	Oct 2	0	S.	1	C. K.	2	Oct. 3	0	N.	1	K.	10
	3	SW.	1	Clear	0		3	NE.	2	C. K.	8		3	N.	1	K.	10
	6	SW.	1	C. K.	2		6	NE.	1	K.	10		6	NE.	1	K.	10
	9	SW.	1	C.	1		9	NE.	1	C. K.	9		9	NE.	1	K.	10
	Noon	S.	1	C.	1		Noon	N.	1	C. K.	9		Noon	N. NE.	1	K.	10
	3	E.	1	C. K.	4		3	SW.	1	C. K.	9		3	N. NE.	1	K.	10
	6	E. NE.	2	C. K. S.	6		6	W.	1	C.	2		6	N.	1	K.	10
	9	E. NE.	1	C.	2		9	W.	1	C. K.	4		9	NE.	1	N.	10
Oct. 4	0	NE.	1	K.	10	Oct. 5	0	NE.	2	N.	10	Oct. 6	0	SW.	1	Clear	0
	3	NE.	2	K.	10		3	N.	2	N.	10		3	W.	1	Clear	0
	6	NE.	1	K.	10		6	NW.	1	N.	10		6	W.	1	Clear	0
	9	NE.	2	C. K.	10		9	NW.	1	C. K.	10		9	NW.	1	Haze	
	Noon	E. NE.	2	C. K.	10		Noon	W. NW.	2	C. K.	9		Noon	NW.	2	Haze	
	3	E. NE.	2	C. K.	10		3	W.	1	Clear	0		3	NW.	1	Haze	
	6	NE.	2	N.	10		6	SW.	1	Clear	0		6	W.	1	Haze	
	9	N. NE.	2	N.	10		9	SW.	1	Clear	0		9	W.	1	Haze	
Oct. 7	0	N	1	Haze		Oct. 8	0	S.	2	C. K.	10	Oct. 9	0	NW.	2	C. S.	2
	3	NW.	1	Haze			3	S. SW.	1	C. K.	10		3	NW.	2	Clear	0
	6	N.	1	Fog			6	SW.	2	C. K.	10		6	N. NW.	1	S.	1
	9	S.	1	C. K.	10		9	SW.	2	C. K.	7		9	N. NE.	2	C. K.	(
	Noon	S. SW.	1	C. K.	4		Noon	NW.	3	N.	10		Noon	E. NE.	1	C. K.	6
	3	S.	1	C. K.	9		3	NW.	3	C. K.	6		3	SE.	1	C. K.	1c
	6	SE.	2	C. K.	10		6	NW.	3	C. K. S.	9		6	E.	1	C. K.	8
	9	SE.	2	Haze			9	NW.	2	C. K.	4		9	E.	1	C. K.	7
Oct. 10	0	E.	1	K.	10	Oct. 11	0	SW.	1	N.	10	Oct. 12	0	NW.	1	Clear	c
	3	NW.	1	C. K.	8		3	SW.	1	K.	10		3	NW.	1	Clear	c
	6	NW.	1	C. K.	9		6	SW.	1	N.	10		6	W. NW.	1	Fog	
	9	N. NE.	1	C. K.	10		9	W.	1	K.	10		9	W. NW.	1	Haze	
	Noon	W.	1	K.	10		Noon.	S.	2	C. K.	4		Noon	W.	2	Haze	
	3	S. SE.	1	C. K.	7		3	S.	1	Clear	0		3	W.	1	Haze	
	6	SW.	1	K.	10		6	SW.	1	C.	1		6	NW.	1	Haze	
	9	SW.	1	K.	10		9	W.	1	Clear	0		9	NW.	2	Clear	c
Oct. 13	0	NW.	1	C. K.'	2	Oct. 14	0	SW.	1	Clear	0	Oct. 15	0	NW.	1	N.	1c
	3	NW.	1	Clear	0		3	SW.	1	C. K.	3		3	N.	1	N.	1c
	6	NW.	1	C. K.	3		6	S.	1	N.	10		6	N.	1	N.	1c
	9	NE.	1	C. K.	6		9	S.	1	C. K.	10		9	N. NE.	1	K.	1c
	Noon	S.	1	C. K.	8		Noon	S.	1	N.	10		Noon	N. NE.	1	K.	10
	3	S.	1	C. K.	4		3	NW.	1	N.	10		3	N. NW.	1	N.	1c
	6	S.	1	C. K. S.	5		6	NW.	1	N.	10		6	N.	1	K.	10
	9	SW.	1	Haze			9	NW.	1	N.	10		9	NE.	1	K.	10

REMARKS.

October 4. Commenced raining at 3^h 10^m p. m.; continued until 6^h a. m. on the 5th. Amount, 0.580 inch.
8. Light rain-squalls from 11^h a. m. to 1^h p. m.
14. Rain during the afternoon; also during the forenoon of the 15th. Amount, 0.340 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868.						1868.						1868.					
Oct. 16	0	N.	1	K.	10	Oct. 17	0	NW.	1	K.	10	Oct. 18	0	NW.	1	Clear	
	3	NW.	2	K.	10		3	NW.	2	C. K.	3		3	SW.	1	Clear	
	6	NW.	2	N.	10		6	NW.	4	C. K.	8		6	W.	1	Clear	
	9	NW.	2	K.	10		9	NW.	3	C. K.	6		9	N.	1	Clear	
	Noon	W. NW.	1	C. K.	10		Noon	NW.	3	C. K.	3		Noon	S. SE.	2	C. K.	
	3	NW.	1	C.	1		3	NW.	3	C. K.	3		3	S. SW.	1	C. K.	
	6	NW.	1	C. S.	3		6	NW.	1	S.	1		6	SW.	1	C. K.	
	9	NW.	1	C. K.	8		9	NW.	2	Clear	0		9	SE.	1	C. K.	
Oct. 19	0	SE.	2	K.	10	Oct. 20	0	NW.	1	C. K.	8	Oct. 21	0	NE.	1	K.	
	3	SE.	3	N.	10		3	NW.	1	C. K.	6		3	E.	1	K.	
	6	S.	2	N.	10		6	NW.	1	C. K. S.	6		6	E.	1	K.	
	9	S. SW.	2	C.	1		9	N. NW.	1	C. K.	4		9	S. SW.	1	N.	
	Noon	S. SE.	2	C. K. S.	5		Noon	N.	1	C. K.	9		Noon	N.	1	N.	
	3	S.	1	C. K.	10		3	NW.	1	C. K.	10		3	N. NE.	1	N.	
	6	NW.	2	C. K.	10		6	N. NW.	1	K.	10		6	NW.	1	N.	
	9	NW.	2	C. K.	10		9	NE.	1	K.	10		9	NE.	1	N.	
Oct. 22	0	NE.	1	K.	10	Oct. 23	0	NW.	2	C. K.	2	Oct. 24	0	NW.	1	Clear	
	3	NW.	1	C. K.	8		3	NW.	1	C. K.	7		3	NW.	1	C. S.	
	6	NW.	1	C. K. S.	6		6	NW.	2	C. K. S.	6		6	NW.	1	S.	
	9	NW.	2	C.	1		9	NW.	2	C. K.	4		9	SW.	1	C. K.	
	Noon	W. NW.	3	C. K.	6		Noon	NW.	2	C. K.	6		Noon	S. SE.	2	Haze	
	3	W. NW.	5	C. K.	7		3	NW.	2	C. K.	5		3	S.	1	Clear	
	6	NW.	3	C. K. S.	4		6	N.	1	C. S.	2		6	S.	1	C. K.	
	9	NW.	4	C. K. S.	8		9	N.	1	C.	1		9	W.	1	C. K.	
Oct. 25	0	S. SE.	1	C. K.	4	Oct. 26	0	SW.	1	Fog		Oct. 27	0	W.	1	Clear	
	3	S. SW.	1	C. K.	3		3	NW.	1	Clear	0		3	W.	1	Fog	
	6	S. SW.	1	C. K.	3		6	W.	1	Clear	0		6	NW.	1	Fog	
	9	SW.	1	C. K.	5		9	W. NW.	2	Haze			9	SW.	1	C. K.	
	Noon	S.	2	C. K.	9		Noon	NW.	2	C. K.	4		Noon	S.	1	C. K.	
	3	S.	1	C. K.	10		3	W.	1	Clear	0		3	S. SF.	2	C. K.	
	6	E.	1	N.	10		6	NW.	1	Clear	0		6	S. SE.	1	C. K.	
	9	E.	1	K.	10		9	NW.	1	Clear	0		9	S. SW.	1	C. K.	
Oct. 28	0	S. SE.	1	C. K.	10	Oct. 29	0	NW.	1	Clear	0	Oct. 30	0	NW.	1	Clear	
	3	SE.	2	C. K.	9		3	NW.	1	Clear	0		3	NW.	1	Fog	
	6	S. SW.	1	C. K.	9		6	NW.	1	C.	2		6	NW.	1	Fog	
	9	S.	1	C. K.	9		9	NE.	2	C. K.	4		9	NE.	1	C.	
	Noon	W.	3	C. K.	8		Noon	S.	1	Clear	0		Noon	SE.	1	C.	
	3	NW.	5	Haze			3	S.	1	C.	1		3	E.	2	Clear	
	6	NW.	1	Clear	0		6	SE.	1	Clear	0		6	E.	1	C. K.	
	9	NW.	2	Clear	0		9	N.	1	Clear	0		9	E.	2	C. K.	

REMARKS.

October 16. Light rain at 6^h a. m. Amount, 0.020 inch.
19. Several light showers during the day. Amount, 0.028 inch.
21. Began to rain at 6^h 20^m a. m., and continued through the day. Amount, 0.214 inch.
25. Light rain from 3^h 40^m to 8^h 30^m p. m. Amount, 0.152 inch.
28. Light shower at 4^h 28^m a. m. Amount, 0.010 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868.						1868.						1868.					
Oct. 31	0	E.	1	C. K.	2												
	3	E.	1	C. K.	9												
	6	NE.	1	C. K.	9												
	9	S.	1	C. K.	10												
	Noon	S. SE.	2	C. K.	9												
	3	SE.	3	K.	10												
	6	SE.	3	K.	10												
	9	SE.	4	N.	10												
Nov. 1	0	S. SE.	4	N.	10	Nov. 2	0	NW.	3	K.	10	Nov. 3	0	NW.	1	C. K.	8
	3	NW.	3	N.	10		3	NW.	3	K.	10		3	NW.	1	Clear	0
	6	NW.	3	N.	10		6	NW.	3	K.	10		6	NW.	1	Clear	0
	9	NW.	2	N.	10		9	NW.	2	C. K.	9		9	W. NW.	2	Clear	0
	Noon	W. NW.	1	N.	10		Noon	NW.	3	C. K.	9		Noon	W.	1	Clear	0
	3	NW.	2	C. K.	8		3	NW.	3	C. K.	7		3	W.	1	Clear	0
	6	NW.	2	K.	10		6	NW.	2	C. K.	9		6	W.	1	Clear	0
	9	NW.	3	K.	10		9	NW.	2	C. K.	7		9	SW.	1	Clear	0
Nov. 4	0	SW.	1	Clear	0	Nov. 5	0	SE.	1	K.	10	Nov. 6	0	NW.	1	Clear	0
	3	SW.	1	C. K.	10		3	SE.	1	N.	10		3	NW.	2	Clear	0
	6	W.	1	C.	8		6	W.	1	N.	10		6	NW.	1	C.	2
	9	W.	1	C.	3		9	W. SW.	1	C. K.	2		9	W.	2	C. K.	8
	Noon	S.	1	C.	4		Noon	NW.	4	C. K.	4		Noon	W. NW.	2	C. K. S.	7
	3	S.	1	C. K.	4		3	NW.	4	C. K.	7		3	NW.	2	C. S.	2
	6	S.	1	S.	2		6	NW.	3	K.	0		6	NW.	1	S.	1
	9	S.	1	C. K.	10		9	W.	2	Clear	0		9	NW.	2	Clear	0
Nov. 7	0	NW.	1	C.	1	Nov. 8	0	E.	1	C. K.	8	Nov. 9	0	S. SE.	2	N.	10
	3	NW.	2	C.	5		3	E.	1	C. K.	10		3	S.	2	C. K.	4
	6	NW.	1	C.	2		6	SW.	1	C. K.	10		6	S.	2	C. K.	6
	9	E.	1	C. K.	4		9	SW.	1	C. K.	8		9	SW.	1	C. K. S.	9
	Noon	E.	1	C. K.	4		Noon	S.	1	C. K.	7		Noon	S.	1	C. S.	8
	3	E.	1	C. K.	5		3	S. SW.	1	C. K.	7		3	S.	2	C. K.	7
	6	NE.	1	C. K.	6		6	S. SW.	1	C. K.	9		6	S.	1	C. K. S.	3
	9	NE.	1	C.	1		9	SW.	1	C. K.	8		9	S.	1	C. S.	1
Nov. 10	0	S.	1	C. S.	2	Nov. 11	0	NW.	5	N.	10	Nov. 12	0	NW.	3	Clear	0
	3	S.	1	C. K. S.	4		3	NW.	5	N.	10		3	NW.	1	Clear	0
	6	S.	1	C. K.	7		6	NW.	4	N.	10		6	W.	1	Clear	0
	9	S.	1	C. K.	5		9	NW.	3	C. K. S.	8		9	W.	2	Clear	0
	Noon	SW.	2	C. K.	6		Noon	W. NW.	3	C. K.	6		Noon	W.	2	S.	1
	3	S. SW.	2	C. K.	5		3	NW.	2	C.	3		3	NW.	1	C. S.	2
	6	SE.	1	C. K. S.	4		6	NW.	2	C. K.	1		6	NW.	1	Clear	0
	9	SE.	2	C. K.	9		9	NW.	2	Clear	0		9	NW.	1	Clear	0

REMARKS.

October 31. Began to rain at 9^h p. m., and continued until noon on November 1. Amount, 1.890, inch.
November 5. Light rain at 3^h a. m. Amount, 0.130 inch.
10. Began to rain at 11^h 35^m p. m., and continued through the night. Amount, 0.394 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. Nov. 13	0	NW.	1	Clear	0	1868. Nov. 14	0	NW.	1	Clear	0	1868. Nov. 15	0	SE.	1	C. K.	
	3	NW.	1	C. S.	1		3	NW.	1	Clear	0		3	NW.	1	C. K.	
	6	S.	1	C.	3		6	W.	1	C. S.	2		6	W.	1	C. K.	7
	9	SW.	1	C. K.	3		9	W. NW.	1	C. K.	2		9	SW.	1	Haze	
	Noon	S.	1	C. K.	6		Noon	SW.	1	C. K.	6		Noon	SE.	1	Haze	
	3	S.	1	C. K.	4		3	S. SW.	1	C. K.	9		3	SW.	1	C.	1
	6	SW.	1	Clear	0		6	E.	1	C. K.	2		6	SW.	1	C. K. S.	1
	9	NW.	1	Clear	0		9	NW.	1	C. K.	3		9	SW.	1	C. K. S.	2
Nov. 16	0	NW.	1	Clear	0	Nov. 17	0	E. SE.	2	K.	10	Nov. 18	0	E. SE.	2	N.	1
	3	N.	1	Fog			3	NE.	2	K.	10		3	N. NW.	3	C. K.	
	6	N. NW.	1	Fog			6	NE.	2	K.	10		6	NW.	3	C. K.	
	9	NE.	1	Fog			9	NE.	1	C. K.	10		9	NW.	3	C. S.	3
	Noon	E.	1	K.	10		Noon	E.	1	C. K.	10		Noon	W.	2	S.	1
	3	E.	1	C. K.	8		3	E.	2	N.	10		3	W. NW.	2	C.	2
	6	E.	1	C. K.	8		6	E.	2	N.	10		6	NW.	1	S.	1
	9	E.	1	K.	10		9	E.	2	N.	10		9	NW.	1	S.	1
Nov. 19	0	NW.	1	Clear	0	Nov. 20	0	N.	1	C. K.	9	Nov. 21	0	NW.	4	N.	1
	3	NW.	1	Clear	0		3	N.	1	K.	10		3	NW.	4	N.	1
	6	W. NW.	1	C. S.	2		6	NW.	2	N.	10		6	NW.	3	C. K.	
	9	W. SW.	1	Fog			9	W. NW.	2	N.	10		9	NW.	3	C. K.	
	Noon	S.	1	C. K. S.	2		Noon	NW.	4	K.	10		Noon	W.	3	C. K.	
	3	S.	1	C. K.	1		3	NW.	4	N.	10		3	W.	2	K.	1
	6	SW.	1	Clear	0		6	NW.	4	N.	10		6	NW.	2	C. K.	1
	9	SW.	1	C. K.	9		9	NW.	4	N.	10		9	NW.	2	C. K.	7
Nov. 22	0	NW.	3	K.	10	Nov. 23	0	NW.	2	Clear	0	Nov. 24	0	NW.	2	Clear	0
	3	NW.	1	K.	10		3	NW.	1	Clear	0		3	NW.	1	Clear	0
	6	W. NW.	2	N.	10		6	W.	1	Clear	0		6	W.	1	Clear	0
	9	W. NW.	1	C. K.	10		9	NW.	2	Clear	0		9	W.	1	S.	1
	Noon	NW.	2	N.	10		Noon	NW.	2	Clear	0		Noon	W. NW.	2	C. S.	1
	3	NW.	3	C. K.	3		3	NW.	2	Clear	0		3	W. NW.	1	S.	1
	6	NW.	3	C. K.	7		6	NW.	1	Clear	0		6	W.	1	Clear	0
	9	NW.	3	S.	1		9	NW.	1	Clear	0		9	W. NW.	1	Clear.	0
Nov. 25	0	W.	1	Clear	0	Nov. 26	0	SW.	1	N.	10	Nov. 27	0	NW.	3	Clear	0
	3	W.	1	Clear	0		3	W.	2	N.	10		3	NW.	2	Clear	
	6	W.	1	C. K. S.	3		6	NW.	2	N.	10		6	NW.	2	Clear	
	9	NE.	1	Fog			9	W.	2	C. K. S.	8		9	NW.	1	Clear	
	Noon	SE.	1	C. K.	10		Noon	W. NW.	3	C. K.	3		Noon	NW.	2	S.	1
	3	SE.	1	C. K.	10		3	NW.	2	C. K.	8		3	W.	2	C. S.	2
	6	S.	1	C. K.	10		6	NW.	2	C. K.	8		6	NW.	1	C. K.	2
	9	S.	1	K.	10		9	W.	2	C. K.	3		9	NW.	2	C. K.	7

REMARKS.

November 13. Heavy white frost.
14. Heavy white frost.
17. Rain from 1^h^ 30^m^ p. m. until midnight. Amount, 1.386 inch.
20. Hail, rain, and snow during the day. Continued until 4^h^ 15^m^ a. m. on the 21st. Amount of rain and melted hail and snow, 0.477 inch.
22. Light fall of snow and rain. Amount, 0.026 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. Nov. 28	0	NW.	1	C. K.	2	1868. Nov. 29	0	NW.	3	C. K.	7	1868. Nov. 30	0	S. SE.	1	C. K.	7
	3	W. SW.	1	Clear	0		3	NW.	3	C. K.	9		3	S. SW.	1	C. K.	7
	6	NW.	1	Clear	0		6	W. NW.	3	C. K.	10		6	SW.	1	C. K. S.	4
	9	NW.	1	Fog			9	NW.	2	C. K.	7		9	W.	1	C. K.	3
	Noon	S.	1	C. K.	7		Noon	NW.	2	C. K.	4		Noon	W. NW.	3	C. K.	8
	3	S.	1	C. K.	5		3	W. SW.	2	C. K. S.	9		3	NW.	3	C. K.	4
	6	SE.	1	K.	10		6	W.	1	C. K.	3		6	NW.	2	C. S.	2
	9	NW.	1	K.	10		9	S. SW.	1	C. K.	3		9	NW.	2	C. K. S.	2
Dec. 1	0	NW.	2	C. K.	9	Dec. 2	0	NW.	1	Clear	0	Dec. 3	0	NW.	1	Clear	0
	3	NW.	2	C. K.	10		3	W.	1	Clear	0		3	W. NW.	1	Clear	0
	6	NW.	2	C. K. S.	6		6	W.	1	C. S.	2		6	W. NW.	2	C. K.	2
	9	NW.	2	C. K.	7		9	SW.	1	C. K. S.	3		9	W.	1	C. K. S.	6
	Noon	NW.	2	C. K.	7		Noon	W.	3	C. K.	6		Noon	W.	1	C.	2
	3	NW.	2	C. K.	8		3	W. NW.	2	C. K.	1		3	W.	1	Clear	0
	6	NW.	2	S.	1		6	W. NW.	2	Clear	0		6	NW.	1	S.	1
	9	W. NW.	1	Clear	0		9	N.	2	Clear	0		9	NW.	1	Haze	
Dec. 4	0	W. NW.	1	K.	10	Dec. 5	0	NW.	3	N.	10	Dec. 6	0	W. NW.	1	Clear	0
	3	W. NW.	1	K.	10		3	NW.	3	N.	10		3	NW.	1	Clear	0
	6	NW.	1	K.	10		6	NW.	2	C. K.	9		6	NW.	1	C. K.	2
	9	NE.	1	K.	10		9	NW.	1	K.	10		9	W. SW.	1	C. K.	9
	Noon	SE.	1	N.	10		Noon	W. NW.	1	C. K.	9		Noon	W. SW.	1	C. K.	7
	3	E.	1	N.	10		3	NW.	2	C. K. S.	2		3	E.	1	K.	10
	6	E.	1	K.	10		6	NW.	1	C. K. S.	2		6	E. SE.	1	K.	10
	9	SE.	1	N.	10		9	NW.	1	C. K.	3		9	E. SE.	1	K.	10
Dec. 7	0	NE.	2	K.	10	Dec. 8	0	W.	1	C. K.	5	Dec. 9	0	NW.	4	C. K.	2
	3	NE.	2	K.	10		3	W.	3	C. S.	3		3	NW.	4	C. K.	3
	6	NE.	3	N.	10		6	W.	5	C. K.	9		6	NW.	3	C. K.	9
	9	NE.	2	N.	10		9	NW.	3	C. K. S.	3		9	W.	2	C.	1
	Noon	W. NW.	2	N.	10		Noon	W.	3	C. K.	7		Noon	W.	3	C.	2
	3	W.	2	C. K.	5		3	W.	2	C. K.	5		3	NW.	1	C.	1
	6	W.	1	K.	10		6	NW.	3	C. K.	5		6	NW.	1	S.	1
	9	W.	1	K.	10		9	NW.	4	C. K.	2		9	NW.	1	C. K.	7
Dec. 10	0	NW.	1	Haze		Dec. 11	0	NW.	1	C.	4	Dec. 12	0	N. NW.	3	C. K.	2
	3	NW.	1	K.	10		3	SE.	1	C. K.	6		3	N. NW.	3	C. K.	3
	6	W.	1	K.	9		6	NE.	2	C. K.	10		6	N. NW.	3	Clear	0
	9	NW.	1	C. K.	10		9	N.	2	C. K.	10		9	NW.	5	Clear	0
	Noon	SW	1	C. K.	4		Noon	N.	2	C. K.	10		Noon	NW.	5	Clear	0
	3	SW.	1	C. K. S.	3		3	N. NW.	3	C. K.	7		3	NW.	3	Clear	0
	6	NW.	1	C.	2		6	N. NW.	2	K.	10		6	NW.	2	Clear	0
	9	NW.	1	C. K.	8		9	NW.	3	C. K.	9		9	NW.	2	Clear	0

REMARKS.

November 28. A very light shower at 9^h 50^m p. m.
December 1. A few flakes of snow at 8^h 20^m a. m.
4. Commenced snowing at 11^h 10^m a. m. Rain and snow until 5^h a. m. on the 5th. Depth of snow, 1.5 inch. Amount of melted snow and rain, 0.644 inch.
7. Rain from 3^h 40^m a. m. to 1^h 30^m p. m. Amount, 1.050 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. Dec. 13	0	NW.	1	Clear	0	1868. Dec. 14	0	NW.	1	Clear	0	1868. Dec. 15	0	W. NW.	1	C. K.	
	3	NW.	2	Clear	0		3	N.	1	Clear	0		3	NW.	1	C. K.	
	6	N. NW.	1	C. K. S.	2		6	N.	1	Clear	0		6	E.	1	C. K.	
	9	NW.	2	C. K. S.	2		9	W.	1	C. K.	10		9	W.	1	C. K. S.	
	Noon	NW.	1	C. K.	3		Noon	S.	1	C. K.	10		Noon	NW.	1	C. K.	
	3	W. NW.	1	C. K.	5		3	S.	1	C. K.	8		3	NW.	1	C. K.	
	6	W.	1	C.	2		6	S.	1	K.	10		6	NW.	1	C. K.	
	9	W. NW.	1	C. K.	8		9	W. NW.	1	C. K.	3		9	NW.	1	C. K.	
Dec. 16	0	NE.	1	K.	10	Dec. 17	0	NW.	1	C. K.	8	Dec. 18	0	NW.	3	Clear	
	3	NE.	1	K.	10		3	W.	1	Clear	0		3	NW.	4	Clear	
	6	NE.	1	N.	10		6	E.	1	C.	1		6	NW.	1	C. K.	
	9	NE.	1	N.	10		9	SW.	1	Fog	10		9	NW.	2	C.	
	Noon	NE.	2	N.	10		Noon	SW.	1	K.	10		Noon	W. NW.	3	C.	
	3	N. NW.	2	N.	10		3	SE.	1	C. S.	2		3	NW.	3	Clear	
	6	NW.	2	N.	10		6	W. NW.	1	C. K.	1		6	NW.	2	C. S.	
	9	NW.	1	K.	10		9	NW.	1	Clear	0		9	NW.	1	Clear	
Dec. 19	0	NW.	2	Clear	0	Dec. 20	0	SE.	1	C. K.	6	Dec. 21	0	SE.	1	C. K.	
	3	NW.	2	Clear	0		3	SE.	1	K.	10		3	S. SW.	1	C. K.	
	6	NW.	1	C. K. S.	2		6	S. SE.	1	K.	10		6	SW.	1	C. K.	
	9	NE.	1	C. K.	5		9	SW.	1	C. K.	9		9	SW.	1	Clear	
	Noon	SE.	1	C. K.	3		Noon	S.	3	K.	10		Noon	NW.	3	C.	
	3						3	S.	3	C. K.	9		3	NW.	3	Clear	
	6	SE.	1	C.	1		6	SW.	1	C. K.	10		6	NW.	1	Clear	
	9	SE.	1	C.	2		9	S. SE.	1	C. K.	10		9	NW.	2	C. K.	
Dec. 22	0	NW.	2	C. K.	2	Dec. 23	0	S.	1	K.	10	Dec. 24	0	W. NW.	2	Clear	
	3	NW.	2	K.	1		3	SW.	1	K.	10		3	W.	1	C. K.	
	6	NW.	1	Clear	0		6	NW.	3	C. K.	8		6	W. NW.	2	C. K.	
	9	N. NW.	1	Haze			9	NW.	3	C.	2		9	NW.	3	C. K.	
	Noon	W. NW.	1	C. K.	7		Noon	NW.	2	C.	2		Noon	NW.	3	C. K.	
	3	S. SW.	1	C. K.	9		3	NW.	3	C.	1		3	NW.	3	C. K.	
	6	SE.	1	C.	4		6	NW.	3	Clear	0		6	NW.	4	C. K.	
	9	SE.	1	C. K.	6		9	NW.	3	Clear	0		9	NW.	3	C. K.	
Dec. 25	0	NW.	4	C. K.	2	Dec. 26	0	NW.	1	C. K.	6	Dec. 27	0	SE.	1	C. K.	
	3	NW.	2	C. S.	1		3	NW.	1	S.	1		3	SE.	1	C. K.	
	6	NW.	2	S.	1		6	NW.	1	C. S.	3		6	SE.	1	N.	
	9	SW.	2	Clear	0		9	W.	2	C. K.	10		9	S.	1	N.	
	Noon	W.	2	C. K.	2		Noon	N.	1	C. K.	10		Noon	S.	1	K.	
	3	W.	2	Clear	0		3	N.	1	C. K.	10		3	S.	1	K.	
	6	W.	1	S.	1		6	SE.	1	C. K.	9		6	S.	1	K.	
	9	W.	1	S.	1		9	SE.	1	C. K.	10		9	S.	1	C. K.	

REMARKS.

December 16. Rain during the day. Amount, 0.256 inch.
20. A light shower at 4^h a. m. Not measurable.
27. Light snow from 5^h 45^m a. m. to 11^h a. m. Depth, 0.125 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. Dec. 28	0	SW.	1	Clear	0	1868. Dec. 29	0	S.	1	Fog		1868. Dec. 30	0	W. SW.	1	Fog	
	3	SW.	1	Haze			3	S.	1	Fog			3	NW.	1	C. K.	9
	6	W.	1	Fog			6	S.	1	Fog			6	NW.	1	C. K.	10
	9	SW.	1	Fog			9	S.	1	Haze			9	NE.	1	K.	10
	Noon	SW.	1	Fog			Noon	S.	2	N.	10		Noon	S.	1	N.	10
	3	S.	1	Fog			3	SW.	1	N.	10		3	NE.	1	N.	10
	6	S. SE.	1	Fog			6	SW.	1	C. K.	10		6	E.	1	C. K.	10
	9	SW.	1	Fog			9	SW.	1	C. K.	10		9	NE.	1	K.	10
Dec. 31	0	NE.	1	K.	10												
	3	N. NE.	1	K.	10												
	6	NE.	1	K.	10												
	9	NE.	1	Fog													
	Noon	NW.	1	Haze													
	3	N. NE.	1	N.	10												
	6	E.	1	N.	10												
	9	E.	1	N.	10												

REMARKS.

December 29. Light rain at 9h 20m a. m.
30. Snow during the afternoon. Depth, 4 inches.

METEOROLOGICAL OBSERVATIONS

MEAN MONTHLY AND ANNUAL RESULTS.

1868.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. Sept. 16	0	SE.	1	K.	10	1868. Sept. 17	0	NW.	3	K.	10	1868. Sept. 18	0	NW.	1	Clear	
	3	SE.	1	K.	10		3	NW.	3	K.	10		3	NW.	1	Clear	
	6	SW.	1	K.	10		6	NW.	2	C. K.	8		6	W.	1	Clear	
	9	SW.	1	K.	10		9	NW.	2	C. K.	2		9	E. SE.	2	Clear	
	Noon	W.	3	C. K.	7		Noon	NW.	2	C. K.	6		Noon	E. SE.	1	C. K.	
	3	NW.	5	C. K.	6		3	NW.	2	C. K.	7		3	S.	1	C. K.	
	6	NW.	3	C. K. S.	3		6	NW.	1	C. K.	8		6	NE.	1	C.	
	9	NW.	2	C. K.	9		9	NW.	1	Clear	0		9	SW.	1	Clear	
Sept. 19	0	NW.	1	Clear	0	Sept. 20	0	SW.	1	C. K.	10	Sept. 21	0	W.	1	C.	
	3	NW.	1	Clear	0		3	S. SW.	1	Clear	0		3	NW.	1	C. K.	
	6	W.	1	C. K.	6		6	S.	1	C. S.	2		6	NW.	1	K.	
	9	S.	1	C.	4		9	S. SW.	2	C. K.	9		9	NW.	3	C. K.	
	Noon	S.	1	C.	2		Noon	SW.	2	C. K.	9		Noon	NW.	3	C. K.	
	3	S.	1	C. K.	4		3	W.	1	N.	10		3	N.	2	C. K.	
	6	S.	2	C. S.	1		6	SW.	2	N.	10		6	N. NW.	1	C. K. S.	
	9	S.	1	C. S.	2		9	SW.	1	K.	10		9	NW.	1	C. K.	
Sept. 22	0	SW.	1	C. K.	4	Sept. 23	0	E. SE.	2	N.	10	Sept. 24	0	NW.	2	C. S.	
	3	N. NE.	1	C. K.	10		3	SE.	2	K.	10		3	NW.	2	C. K.	
	6	N.	1	C. K.	10		6	SW.	1	C. K.	9		6	NW.	1	K.	
	9	S. SE.	1	K.	10		9	W. NW.	1	C. K.	8		9	NE.	2	K.	
	Noon	S. SE.	1	K.	10		Noon	W.	1	C. K.	9		Noon	NE.	2	K.	
	3	S.	2	K.	10		3	SE.	1	C. K.	8		3	N. NE.	2	K.	
	6	SE.	2	N.	10		6	NW.	2	C. K.	10		6	N. NW.	1	N.	
	9	E. SE.	2	N.	10		9	NW.	2	C. K. S.	6		9	SE.	1	N.	
Sept. 25	0	NE.	1	N.	10	Sept. 26	0	NW.	2	K.	10	Sept. 27	0	N.	1	N.	
	3	NE.	1	K.	10		3	NW.	2	K.	10		3	N.	1	N.	
	6	W. NW.	1	N.	10		6	NW.	2	N.	10		6	NW.	1	N.	
	9	SW.	1	C. K.	10		9	N. NW.	1	C. K.	10		9	W.	1	K.	
	Noon	SE.	2	C. S.	4		Noon	NW.	1	C. K.	10		Noon	W.	1	K.	
	3	S.	1	C. K.	9		3	E.	1	N.	10		3	W.	1	C. K.	
	6	SW.	1	C. K.	10		6	E.	1	N.	10		6	SW.	1	C. K.	
	9	NW.	3	C. K.	10		9	NE.	1	N.	10		9	SW.	2	K.	
Sept. 28	0	SW.	2	C. K.	10	Sept. 29	0	NW.	2	Clear	0	Sept. 30	0	W.	1	Clear	
	3	SW.	1	C. K.	10		3	NW.	2	C. K.	1		3	W.	1	Clear	
	6	SW.	1	K.	10		6	NW.	2	C. S.	2		6	W.	1	Fog	
	9	S. SW.	1	C. K.	8		9	NW.	2	Clear	0		9	S. SE.	1	C.	
	Noon	S.	1	C.	1		Noon	W. NW.	2	C. K.	4		Noon	S.	2	C.	
	3	SW.	1	C. K.	8		3	W. NW.	2	C. K.	3		3	SW.	3	Clear	
	6	W. NW.	1	C. K. S.	6		6	W.	1	Clear	0		6	S.	1	C. K.	
	9	NW.	3	C. K.	2		9	NW.	1	Clear	0		9	S. SW.	1	C. K.	

REMARKS.

September 20. Raining at $1^h 50^m$ p. m. Amount, 0.150 inch.
22. Began to rain at 6^h p. m., and continued until midnight. Amount, 0.334 inch.
23. Shower at $2^h 20^m$ p. m. Amount, 0.200 inch.
24. Rain at 4^h p. m., continuing lightly at intervals until the morning of the 27th. Amount, 1.552 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. Oct. 1	0	S. SW.	1	C. K. S.	3	1868. Oct 2	0	S.	1	C. K.	2	1868. Oct. 3	0	N.	1	K.	10
	3	SW.	1	Clear	0		3	NE.	2	C. K.	8		3	N.	1	K.	10
	6	SW.	1	C. K.	2		6	NE.	1	K.	10		6	NE.	1	K.	10
	9	SW.	1	C.	1		9	NE.	1	C. K.	9		9	NE.	1	K.	10
	Noon	S.	1	C.	1		Noon	N.	1	C. K.	9		Noon	N. NE.	1	K.	10
	3	E.	1	C. K.	4		3	SW.	1	C. K.	9		3	N. NE.	1	K.	10
	6	E. NE.	2	C. K. S.	6		6	W.	1	C.	2		6	N.	1	K.	10
	9	E. NE.	1	C.	2		9	W.	1	C. K.	4		9	NE.	1	N.	10
Oct. 4	0	NE.	1	K.	10	Oct. 5	0	NE.	2	N.	10	Oct. 6	0	SW.	1	Clear	0
	3	NE.	2	K.	10		3	N.	2	N.	10		3	W.	1	Clear	0
	6	NE.	1	K.	10		6	NW.	1	N.	10		6	W.	1	Clear	0
	9	NE.	2	C. K.	10		9	NW.	1	C. K.	10		9	NW.	1	Haze	
	Noon	E. NE.	2	C. K.	10		Noon	W. NW.	2	C. K.	9		Noon	NW.	2	Haze	
	3	E. NE.	2	C. K.	10		3	W.	1	Clear	0		3	NW.	1	Haze	
	6	NE.	2	N.	10		6	SW.	1	Clear	0		6	W.	1	Haze	
	9	N. NE.	2	N.	10		9	SW.	1	Clear	0		9	W.	1	Haze	
Oct. 7	0	N	1	Haze		Oct. 8	0	S.	2	C. K.	10	Oct. 9	0	NW.	2	C. S.	2
	3	NW.	1	Haze			3	S. SW.	1	C. K.	10		3	NW.	2	Clear	0
	6	N.	1	Fog			6	SW.	2	C. K.	10		6	N. NW.	1	S.	1
	9	S.	1	C. K.	10		9	SW.	2	C. K.	7		9	N. NE.	2	C. K.	0
	Noon	S. SW.	1	C. K.	4		Noon	NW.	3	N.	10		Noon	E. NE.	1	C. K.	6
	3	S.	1	C. K.	9		3	NW.	3	C. K.	6		3	SE.	1	C. K.	10
	6	SE.	2	C. K.	10		6	NW.	3	C. K. S.	9		6	E.	1	C. K.	8
	9	SE.	2	Haze			9	NW.	2	C. K.	4		9	E.	1	C. K.	7
Oct. 10	0	E.	1	K.	10	Oct. 11	0	SW.	1	N.	10	Oct. 12	0	NW.	1	Clear	0
	3	NW.	1	C. K.	8		3	SW.	1	K.	10		3	NW.	1	Clear	0
	6	NW.	1	C. K.	9		6	SW.	1	N.	10		6	W. NW.	1	Fog	
	9	N. NE.	1	C. K.	10		9	W.	1	K.	10		9	W. NW.	1	Haze	
	Noon	W.	1	K.	10		Noon.	S.	2	C. K.	4		Noon	W.	2	Haze	
	3	S. SE.	1	C. K.	7		3	S.	1	Clear	0		3	W.	1	Haze	
	6	SW.	1	K.	10		6	SW.	1	C.	1		6	NW.	1	Haze	
	9	SW.	1	K.	10		9	W.	1	Clear	0		9	NW.	2	Clear	0
Oct. 13	0	NW.	1	C. K.	2	Oct. 14	0	SW.	1	Clear	0	Oct. 15	0	NW.	1	N.	10
	3	NW.	1	Clear	0		3	SW.	1	C. K.	3		3	N.	1	N.	10
	6	NW.	1	C. K.	3		6	S.	1	N.	10		6	N.	1	N.	10
	9	NE.	1	C. K.	6		9	S.	1	C. K.	10		9	N. NE.	1	K.	10
	Noon	S.	1	C. K.	8		Noon	S.	1	N.	10		Noon	N. NE.	1	K.	10
	3	S.	1	C. K.	4		3	NW.	1	N.	10		3	N. NW.	1	N.	10
	6	S.	1	C. K. S.	5		6	NW.	1	N.	10		6	N.	1	K.	10
	9	SW.	1	Haze			9	NW.	1	N.	10		9	NE.	1	K.	10

REMARKS.

October 4. Commenced raining at $3^h 10^m$ p. m.; continued until 6^h a. m. on the 5th. Amount, 0.580 inch.
8. Light rain-squalls from 11^h a. m. to 1^h p. m.
14. Rain during the afternoon; also during the forenoon of the 15th. Amount, 0.340 inch.

Day.	Hour.	Wind.		Weather.	Portion cloudy.	Day.	Hour.	Wind.		Weather.	Portion cloudy.	Day.	Hour.	Wind.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. Oct. 16	0	N.	1	K.	10	1868. Oct. 17	0	NW.	1	K.	10	1868. Oct. 18	0	NW.	1	Clear	
	3	NW.	2	K.	10		3	NW.	2	C. K.	3		3	SW.	1	Clear	
	6	NW.	2	N.	10		6	NW.	4	C. K.	8		6	W.	1	Clear	
	9	NW.	2	K.	10		9	NW.	3	C. K.	6		9	N.	1	Clear	
	Noon	W. NW.	1	C. K.	10		Noon	NW.	3	C. K.	3		Noon	S. SE.	2	C. K.	
	3	NW.	1	C.	1		3	NW.	3	C. K.	3		3	S. SW.	1	C. K.	
	6	NW.	1	C. S.	3		6	NW.	1	S.	1		6	SW.	1	C. K.	
	9	NW.	1	C. K.	8		9	NW.	2	Clear	0		9	SE.	1	C. K.	
Oct. 19	0	SE.	2	K.	10	Oct. 20	0	NW.	1	C. K.	8	Oct. 21	0	NE.	1	K.	
	3	SE.	3	N.	10		3	NW.	1	C. K.	6		3	E.	1	K.	
	6	S.	2	N.	10		6	NW.	1	C. K. S.	6		6	E.	1	K.	
	9	S. SW.	2	C.	1		9	N. NW.	1	C. K.	4		9	S. SW.	1	N.	
	Noon	S. SE.	2	C. K. S.	5		Noon	N.	1	C. K.	9		Noon	N.	1	N.	
	3	S.	1	C. K.	10		3	NW.	1	C. K.	10		3	N. NE.	1	N.	
	6	NW.	2	C. K.	10		6	N. NW.	1	K.	10		6	NW.	1	N.	
	9	NW.	2	C. K.	10		9	NE.	1	K.	10		9	NE.	1	N.	
Oct. 22	0	NE.	1	K.	10	Oct. 23	0	NW.	2	C. K.	2	Oct. 24	0	NW.	1	Clear	
	3	NW.	1	C. K.	8		3	NW.	1	C. K.	7		3	NW.	1	C. S.	
	6	NW.	1	C. K. S.	6		6	NW.	2	C. K. S.	6		6	NW.	1	S.	
	9	NW.	2	C.	1		9	NW.	2	C. K.	4		9	SW.	1	C. K.	
	Noon	W. NW.	3	C. K.	6		Noon	NW.	2	C. K.	6		Noon	S. SE.	2	Haze	
	3	W. NW.	5	C. K.	7		3	NW.	2	C. K.	5		3	S.	1	Clear	
	6	NW.	3	C. K. S.	4		6	N.	1	C. S.	2		6	S.	1	C. K.	
	9	NW.	4	C. K. S.	8		9	N.	1	C.	1		9	W.	1	C. K.	
Oct. 25	0	S. SE.	1	C. K.	4	Oct. 26	0	SW.	1	Fog		Oct. 27	0	W.	1	Clear	
	3	S. SW.	1	C. K.	3		3	NW.	1	Clear	0		3	W.	1	Fog	
	6	S. SW.	1	C. K.	3		6	W.	1	Clear	0		6	NW.	1	Fog	
	9	SW.	1	C. K.	5		9	W. NW.	2	Haze			9	SW.	1	C. K.	
	Noon	S.	2	C. K.	9		Noon	NW.	2	C. K.	4		Noon	S.	1	C. K.	
	3	S.	1	C. K.	10		3	W.	1	Clear	0		3	S. SE.	2	C. K.	
	6	E.	1	N.	10		6	NW.	1	Clear	0		6	S. SE.	1	C. K.	
	9	E.	1	K.	10		9	NW.	1	Clear	0		9	S. SW.	1	C. K.	
Oct. 28	0	S. SE.	1	C. K.	10	Oct. 29	0	NW.	1	Clear	0	Oct. 30	0	NW.	1	Clear	
	3	SE.	2	C. K.	9		3	NW.	1	Clear	0		3	NW.	1	Fog	
	6	S. SW.	1	C. K.	9		6	NW.	1	C.	2		6	NW.	1	Fog	
	9	S.	1	C. K.	9		9	NE.	2	C. K.	4		9	NE.	1	C.	
	Noon	W.	3	C. K.	8		Noon	S.	1	Clear	0		Noon	SE.	1	C.	
	3	NW.	5	Haze			3	S.	1	C.	1		3	E.	2	Clear	
	6	NW.	1	Clear	0		6	SE.	1	Clear	0		6	E.	1	C. K.	
	9	NW.	2	Clear	0		9	N.	1	Clear	0		9	E.	2	C. K.	

REMARKS.

October 16. Light rain at 6^h a. m. Amount, 0.020 inch.
19. Several light showers during the day. Amount, 0.028 inch.
21. Began to rain at 6^h 20^m a. m., and continued through the day. Amount, 0.214 inch.
25. Light rain from 3^h 40^m to 8^h 30^m p. m. Amount, 0.152 inch.
28. Light shower at 4^h 28^m a. m. Amount, 0.010 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868.						1868.						1868.					
Oct. 31	0	E.	1	C. K.	2												
	3	E.	1	C. K.	9												
	6	NE.	1	C. K.	9												
	9	S.	1	C. K.	10												
	Noon	S. SE.	2	C. K.	9												
	3	SE.	3	K.	10												
	6	SE.	3	K.	10												
	9	SE.	4	N.	10												
Nov. 1	0	S. SE.	4	N.	10	Nov. 2	0	NW.	3	K.	10	Nov. 3	0	NW.	1	C. K.	8
	3	NW.	3	N.	10		3	NW.	3	K.	10		3	NW.	1	Clear	0
	6	NW.	3	N.	10		6	NW.	3	K.	10		6	NW.	1	Clear	0
	9	NW.	2	N.	10		9	NW.	2	C. K.	9		9	W. NW.	2	Clear	0
	Noon	W. NW.	1	N.	10		Noon	NW.	3	C. K.	9		Noon	W.	1	Clear	0
	3	NW.	2	C. K.	8		3	NW.	3	C. K.	7		3	W.	1	Clear	0
	6	NW.	2	K.	10		6	NW.	2	C. K.	9		6	W.	1	Clear	0
	9	NW.	3	K.	10		9	NW.	2	C. K.	7		9	SW.	1	Clear	0
Nov. 4	0	SW.	1	Clear	0	Nov. 5	0	SE.	1	K.	10	Nov. 6	0	NW.	1	Clear	0
	3	SW.	1	C. K.	10		3	SE.	1	N.	10		3	NW.	2	Clear	0
	6	W.	1	C.	8		6	W.	1	N.	10		6	NW.	1	C.	2
	9	W.	1	C.	3		9	W. SW.	1	C. K.	2		9	W.	2	C. K.	8
	Noon	S.	1	C.	4		Noon	NW.	4	C. K.	4		Noon	W. NW.	2	C. K. S.	7
	3	S.	1	C. K.	4		3	NW.	4	C. K.	7		3	NW.	2	C. S.	2
	6	S.	1	S.	2		6	NW.	3	K.	0		6	NW.	1	S.	1
	9	S.	1	C. K.	10		9	W.	2	Clear	0		9	NW.	2	Clear	0
Nov. 7	0	NW.	1	C.	1	Nov. 8	0	E.	1	C. K.	8	Nov. 9	0	S. SE.	2	N.	10
	3	NW.	2	C.	5		3	E.	1	C. K.	10		3	S.	2	C. K.	4
	6	NW.	1	C.	2		6	SW.	1	C. K.	10		6	S.	2	C. K.	6
	9	E.	1	C. K.	4		9	SW.	1	C. K.	8		9	SW.	1	C. K. S.	9
	Noon	E.	1	C. K.	4		Noon	S.	1	C. K.	7		Noon	S.	1	C. S.	8
	3	E.	1	C. K.	5		3	S. SW.	1	C. K.	7		3	S.	2	C. K.	7
	6	NE.	1	C. K.	6		6	S. SW.	1	C. K.	9		6	S.	1	C. K. S.	3
	9	NE.	1	C.	1		9	SW.	1	C. K.	8		9	S.	1	C. S.	1
Nov. 10	0	S.	1	C. S.	2	Nov. 11	0	NW.	5	N.	10	Nov. 12	0	NW.	3	Clear	0
	3	S.	1	C. K. S.	4		3	NW.	5	N.	10		3	NW.	1	Clear	0
	6	S.	1	C. K.	7		6	NW.	4	N.	10		6	W.	1	Clear	0
	9	S.	1	C. K.	5		9	NW.	3	C. K. S.	8		9	W.	2	Clear	0
	Noon	SW.	2	C. K.	6		Noon	W. NW.	3	C. K.	6		Noon	W.	2	S.	1
	3	S. SW.	2	C. K.	5		3	NW.	2	C.	3		3	NW.	1	C. S.	2
	6	SE.	1	C. K. S.	4		6	NW.	2	C. K.	1		6	NW.	1	Clear	0
	9	SE.	2	C. K.	9		9	NW.	2	Clear	0		9	NW.	1	Clear	0

REMARKS.

October 31. Began to rain at 9^h p. m., and continued until noon on November 1. Amount, 1.890, inch.
November 5. Light rain at 3^h a. m. Amount, 0.130 inch.
10. Began to rain at 11^h 35^m p. m., and continued through the night. Amount, 0.394 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. Nov. 13	0	NW.	1	Clear	0	1868. Nov. 14	0	NW.	1	Clear	0	1868. Nov. 15	0	SE.	1	C. K.	[illegible]
	3	NW.	1	C. S.	1		3	NW.	1	Clear	0		3	NW.	1	C. K.	[illegible]
	6	S.	1	C.	3		6	W.	1	C. S.	2		6	W.	1	C. K.	[illegible]
	9	SW.	1	C. K.	3		9	W. NW.	1	C. K.	2		9	SW.	1	Haze	
	Noon	S.	1	C. K.	6		Noon	SW.	1	C. K.	6		Noon	SE.	1	Haze	
	3	S.	1	C. K.	4		3	S. SW.	1	C. K.	9		3	SW.	1	C.	1
	6	SW.	1	Clear	0		6	E.	1	C. K.	2		6	SW.	1	C. K. S.	1
	9	NW.	1	Clear	0		9	NW.	1	C. K.	3		9	SW.	1	C. K. S.	2
Nov. 16	0	NW.	1	Clear	0	Nov. 17	0	E. SE.	2	K.	10	Nov. 18	0	E. SE.	2	N.	[illegible]
	3	N.	1	Fog			3	NE.	2	K.	10		3	N. NW.	3	C. K.	[illegible]
	6	N. NW.	1	Fog			6	NE.	2	K.	10		6	NW.	3	C. K.	[illegible]
	9	NE.	1	Fog			9	NE.	1	C. K.	10		9	NW.	3	C. S.	[illegible]
	Noon	E.	1	K.	10		Noon	E.	1	C. K.	10		Noon	W.	2	S.	1
	3	E.	1	C. K.	8		3	E.	2	N.	10		3	W. NW.	2	C.	2
	6	E.	1	C. K.	8		6	E.	2	N.	10		6	NW.	1	S.	1
	9	E.	1	K.	10		9	E.	2	N.	10		9	NW.	1	S.	1
Nov. 19	0	NW.	1	Clear	0	Nov. 20	0	N.	1	C. K.	9	Nov. 21	0	NW.	4	N.	[illegible]
	3	NW.	1	Clear	0		3	N.	1	K.	10		3	NW.	4	N.	[illegible]
	6	W. NW.	1	C. S.	2		6	NW.	2	N.	10		6	NW.	3	C. K.	[illegible]
	9	W. SW.	1	Fog			9	W. NW.	2	N.	10		9	NW.	3	C. K.	[illegible]
	Noon	S.	1	C. K. S.	2		Noon	NW.	4	K.	10		Noon	W.	3	C. K.	[illegible]
	3	S.	1	C. K.	1		3	NW.	4	N.	10		3	W.	2	K.	[illegible]
	6	SW.	1	Clear	0		6	NW.	4	N.	10		6	NW.	2	C. K.	[illegible]
	9	SW.	1	C. K.	9		9	NW.	4	N.	10		9	NW.	2	C. K.	[illegible]
Nov. 22	0	NW.	3	K.	10	Nov. 23	0	NW.	2	Clear	0	Nov. 24	0	NW.	2	Clear	[illegible]
	3	NW.	1	K.	10		3	NW.	1	Clear	0		3	NW.	1	Clear	[illegible]
	6	W. NW.	2	N.	10		6	W.	1	Clear	0		6	W.	1	Clear	[illegible]
	9	W. NW.	1	C. K.	10		9	NW.	2	Clear	0		9	W.	1	S.	1
	Noon	NW.	2	N.	10		Noon	NW.	2	Clear	0		Noon	W. NW.	2	C. S.	1
	3	NW.	3	C. K.	3		3	NW.	2	Clear	0		3	W. NW.	1	S.	[illegible]
	6	NW.	3	C. K.	7		6	NW.	1	Clear	0		6	W.	1	Clear	[illegible]
	9	NW.	3	S.	1		9	NW.	1	Clear	0		9	W. NW.	1	Clear.	[illegible]
Nov. 25	0	W.	1	Clear	0	Nov. 26	0	SW.	1	N.	10	Nov. 27	0	NW.	3	Clear	[illegible]
	3	W.	1	Clear	0		3	W.	2	N.	10		3	NW.	2	Clear	[illegible]
	6	W.	1	C. K. S.	3		6	NW.	2	N.	10		6	NW.	2	Clear	[illegible]
	9	NE.	1	Fog			9	W.	2	C. K. S.	8		9	NW.	1	Clear	[illegible]
	Noon	SE.	1	C. K.	10		Noon	W. NW.	3	C. K.	3		Noon	NW.	2	S.	1
	3	SE.	1	C. K.	10		3	NW.	2	C. K.	8		3	W.	2	C. S.	2
	6	S.	1	C. K.	10		6	NW.	2	C. K.	8		6	NW.	1	C. K.	2
	9	S.	1	K.	10		9	W.	2	C. K.	3		9	NW.	2	C. K.	[illegible]

REMARKS.

November 13. Heavy white frost.
14. Heavy white frost.
17. Rain from 1h 30m p. m. until midnight. Amount, 1.386 inch.
20. Hail, rain, and snow during the day. Continued until 4h 15m a. m. on the 21st. Amount of rain and melted hail and snow, 0.477 inch.
22. Light fall of snow and rain. Amount, 0.026 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. Nov. 28	0	NW.	1	C. K.	2	1868. Nov. 29	0	NW.	3	C. K.	7	1868. Nov. 30	0	S. SE.	1	C. K.	7
	3	W. SW.	1	Clear	0		3	NW.	3	C. K.	9		3	S. SW.	1	C. K.	7
	6	NW.	1	Clear	0		6	W. NW.	3	C. K.	10		6	SW.	1	C. K. S.	4
	9	NW.	1	Fog			9	NW.	2	C. K.	7		9	W.	1	C. K.	3
	Noon	S.	1	C. K.	7		Noon	NW.	2	C. K.	4		Noon	W. NW.	3	C. K.	8
	3	S.	1	C. K.	5		3	W. SW.	2	C. K. S.	9		3	NW.	3	C. K.	4
	6	SE.	1	K.	10		6	W.	1	C. K.	3		6	NW.	2	C. S.	2
	9	NW.	1	K.	10		9	S. SW.	1	C. K.	3		9	NW.	2	C. K. S.	2
Dec. 1	0	NW.	2	C. K.	9	Dec. 2	0	NW.	1	Clear	0	Dec. 3	0	NW.	1	Clear	0
	3	NW.	2	C. K.	10		3	W.	1	Clear	0		3	W. NW.	1	Clear	0
	6	NW.	2	C. K. S.	6		6	W.	1	C. S.	2		6	W. NW.	2	C. K.	2
	9	NW.	2	C. K.	7		9	SW.	1	C. K. S.	3		9	W.	1	C. K. S.	6
	Noon	NW.	2	C. K.	7		Noon	W.	3	C. K.	6		Noon	W.	1	C.	2
	3	NW.	2	C. K.	8		3	W. NW.	2	C. K.	1		3	W.	1	Clear	0
	6	NW.	2	S.	1		6	W. NW.	2	Clear	0		6	NW.	1	S.	1
	9	W. NW.	1	Clear	0		9	N.	2	Clear	0		9	NW.	1	Haze	
Dec. 4	0	W. NW.	1	K.	10	Dec. 5	0	NW.	3	N.	10	Dec. 6	0	W. NW.	1	Clear	0
	3	W. NW.	1	K.	10		3	NW.	3	N.	10		3	NW.	1	Clear	0
	6	NW.	1	K.	10		6	NW.	2	C. K.	9		6	NW.	1	C. K.	2
	9	NE.	1	K.	10		9	NW.	1	K.	10		9	W. SW.	1	C. K.	9
	Noon	SE.	1	N.	10		Noon	W. NW.	1	C. K.	9		Noon	W. SW.	1	C. K.	7
	3	E.	1	N.	10		3	NW.	2	C. K. S.	2		3	E.	1	K.	10
	6	E.	1	K.	10		6	NW.	1	C. K. S.	2		6	E. SE.	1	K.	10
	9	SE.	1	N.	10		9	NW.	1	C. K.	3		9	E. SE.	1	K.	10
Dec. 7	0	NE.	2	K.	10	Dec. 8	0	W.	1	C. K.	5	Dec. 9	0	NW.	4	C. K.	2
	3	NE.	2	K.	10		3	W.	3	C. S.	3		3	NW.	4	C. K.	3
	6	NE.	3	N.	10		6	W.	5	C. K.	9		6	NW.	3	C. K.	9
	9	NE.	2	N.	10		9	NW.	3	C. K. S.	3		9	W.	2	C.	1
	Noon	W. NW.	2	N.	10		Noon	W.	3	C. K.	7		Noon	W.	3	C.	2
	3	W.	2	C. K.	5		3	W.	2	C. K.	5		3	NW.	1	C.	1
	6	W.	1	K.	10		6	NW.	3	C. K.	5		6	NW.	1	S.	1
	9	W.	1	K.	10		9	NW.	4	C. K.	2		9	NW.	1	C. K.	7
Dec. 10	0	NW.	1	Haze		Dec. 11	0	NW.	1	C.	4	Dec. 12	0	N. NW.	3	C. K.	2
	3	NW.	1	K.	10		3	SE.	1	C. K.	6		3	N. NW.	3	C. K.	3
	6	W.	1	K.	9		6	NE.	2	C. K.	10		6	N. NW.	3	Clear	0
	9	NW.	1	C. K.	10		9	N.	2	C. K.	10		9	NW.	5	Clear	0
	Noon	SW.	1	C. K.	4		Noon	N.	2	C. K.	10		Noon	NW.	5	Clear	0
	3	SW.	1	C. K. S.	3		3	N. NW.	3	C. K.	7		3	NW.	3	Clear	0
	6	NW.	1	C.	2		6	N. NW.	2	K.	10		6	NW.	2	Clear	0
	9	NW.	1	C. K.	8		9	NW.	3	C. K.	9		9	NW.	2	Clear	0

REMARKS.

November 28. A very light shower at 9^h 50^m p. m.

December 1. A few flakes of snow at 8^h 20^m a. m.

4. Commenced snowing at 11^h 10^m a. m. Rain and snow until 5^h a. m. on the 5th. Depth of snow, 1.5 inch. Amount of melted snow and rain, 0.644 inch.

7. Rain from 3^h 40^m a. m. to 1^h 30^m p. m. Amount, 1.050 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. Dec. 13	0	NW.	1	Clear	0	1868. Dec. 14	0	NW.	1	Clear	0	1868. Dec. 15	0	W. NW.	1	C. K.	[illegible]
	3	NW.	2	Clear	0		3	N.	1	Clear	0		3	NW.	1	C. K.	[illegible]
	6	N. NW.	1	C. K. S.	2		6	N.	1	Clear	0		6	E.	1	C. K.	[illegible]
	9	NW.	2	C. K. S.	2		9	W.	1	C. K.	10		9	W.	1	C. K. S.	[illegible]
	Noon	NW.	1	C. K.	3		Noon	S.	1	C. K.	10		Noon	NW.	1	C. K.	[illegible]
	3	W. NW.	1	C. K.	5		3	S.	1	C. K.	8		3	NW.	1	C. K.	[illegible]
	6	W.	1	C.	2		6	S.	1	K.	10		6	NW.	1	C. K.	[illegible]
	9	W. NW.	1	C. K.	8		9	W. NW.	1	C. K.	3		9	NW.	1	C. K.	[illegible]
Dec. 16	0	NE.	1	K.	10	Dec. 17	0	NW.	1	C. K.	8	Dec. 18	0	NW.	3	Clear	[illegible]
	3	NE.	1	K.	10		3	W.	1	Clear	0		3	NW.	4	Clear	[illegible]
	6	NE.	1	N.	10		6	E.	1	C.	1		6	NW.	1	C. K.	[illegible]
	9	NE.	1	N.	10		9	SW.	1	Fog	10		9	NW.	2	C.	[illegible]
	Noon	NE.	2	N.	10		Noon	SW.	1	K.	10		Noon	W. NW.	3	C.	[illegible]
	3	N. NW.	2	N.	10		3	SE.	1	C. S.	2		3	NW.	3	Clear	[illegible]
	6	NW.	2	N.	10		6	W. NW.	1	C. K.	1		6	NW.	2	C. S.	[illegible]
	9	NW.	1	K.	10		9	NW.	1	Clear	0		9	NW.	1	Clear	[illegible]
Dec. 19	0	NW.	2	Clear	0	Dec. 20	0	SE.	1	C. K.	6	Dec. 21	0	SE.	1	C. K.	[illegible]
	3	NW.	2	Clear	0		3	SE.	1	K.	10		3	S. SW.	1	C. K.	[illegible]
	6	NW.	1	C. K. S.	2		6	S. SE.	1	K.	10		6	SW.	1	C. K.	[illegible]
	9	NE.	1	C. K.	5		9	SW.	1	C. K.	9		9	SW.	1	Clear	[illegible]
	Noon	SE.	1	C. K.	3		Noon	S.	3	K.	10		Noon	NW.	3	C.	[illegible]
	3						3	S.	3	C. K.	9		3	NW.	3	Clear	[illegible]
	6	SE.	1	C.	1		6	SW.	1	C. K.	10		6	NW.	1	Clear	[illegible]
	9	SE.	1	C.	2		9	S. SE.	1	C. K.	10		9	NW.	2	C. K.	[illegible]
Dec. 22	0	NW.	2	C. K.	2	Dec. 23	0	S.	1	K.	10	Dec. 24	0	W. NW.	2	Clear	[illegible]
	3	NW.	2	K.	1		3	SW.	1	K.	10		3	W.	1	C. K.	[illegible]
	6	NW.	1	Clear	0		6	NW.	3	C. K.	8		6	W. NW.	2	C. K.	[illegible]
	9	N. NW.	1	Haze			9	NW.	3	C.	2		9	NW.	3	C. K.	[illegible]
	Noon	W. NW.	1	C. K.	7		Noon	NW.	2	C.	2		Noon	NW.	3	C. K.	[illegible]
	3	S. SW.	1	C. K.	9		3	NW.	3	C.	1		3	NW.	3	C. K.	[illegible]
	6	SE.	1	C.	4		6	NW.	3	Clear	0		6	NW.	4	C. K.	[illegible]
	9	SE.	1	C. K.	6		9	NW.	3	Clear	0		9	NW.	3	C. K.	[illegible]
Dec. 25	0	NW.	4	C. K.	2	Dec. 26	0	NW.	1	C. K.	6	Dec. 27	0	SE.	1	C. K.	[illegible]
	3	NW.	2	C. S.	1		3	NW.	1	S.	1		3	SE.	1	C. K.	[illegible]
	6	NW.	2	S.	1		6	NW.	1	C. S.	3		6	SE.	1	N.	[illegible]
	9	SW.	2	Clear	0		9	W.	2	C. K.	10		9	S.	1	N.	[illegible]
	Noon	W.	2	C. K.	2		Noon	N.	1	C. K.	10		Noon	S.	1	K.	[illegible]
	3	W.	2	Clear	0		3	N.	1	C. K.	10		3	S.	1	K.	[illegible]
	6	W.	1	S.	1		6	SE.	1	C. K.	9		6	S.	1	K.	[illegible]
	9	W.	1	S.	1		9	SE.	1	C. K.	10		9	S.	1	C. K.	[illegible]

REMARKS.

December 16. Rain during the day. Amount, 0.256 inch.

20. A light shower at 4^h a. m. Not measurable.

27. Light snow from 5^h 45^m a. m. to 11^h a. m. Depth, 0.125 inch.

Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.	Day.	Hour.	WIND.		Weather.	Portion cloudy.
		Direction.	Force.					Direction.	Force.					Direction.	Force.		
1868. Dec. 28	0	SW.	1	Clear	0	1868. Dec. 29	0	S.	1	Fog		1868. Dec. 30	0	W. SW.	1	Fog	
	3	SW.	1	Haze			3	S.	1	Fog			3	NW.	1	C. K.	9
	6	W.	1	Fog			6	S.	1	Fog			6	NW.	1	C. K.	10
	9	SW.	1	Fog			9	S.	1	Haze			9	NE.	1	K.	10
	Noon	SW.	1	Fog			Noon	S.	2	N.	10		Noon	S.	1	N.	10
	3	S.	1	Fog			3	SW.	1	N.	10		3	NE.	1	N.	10
	6	S. SE.	1	Fog			6	SW.	1	C. K.	10		6	E.	1	C. K.	10
	9	SW.	1	Fog			9	SW.	1	C. K.	10		9	NE.	1	K.	10
Dec. 31	0	NE.	1	K.	10												
	3	N. NE.	1	K.	10												
	6	NE.	1	K.	10												
	9	NE.	1	Fog													
	Noon	NW.	1	Haze													
	3	N. NE.	1	N.	10												
	6	E.	1	N.	10												
	9	E.	1	N.	10												

REMARKS.

December 29. Light rain at 9^h 20^m a. m.
30. Snow during the afternoon. Depth, 4 inches.

METEOROLOGICAL OBSERVATIONS

MEAN MONTHLY AND ANNUAL RESULTS.

1868.

TABLE I.

Monthly means of barometric pressure.

Date.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	in.	in.	in.	in.	in.	in.	in.	in.
January .	29.997	29.985	29.993	30.021	29.996	29.974	29.988	30.013
February .	30.153	30.150	30.160	30.182	30.154	30.104	30.113	30.129
March . .	30.003	29.993	30.004	30.031	30.019	29.962	29.972	29.998
April . .	29.978	29.981	30.000	30.012	29.967	29.915	29.913	29.963
May . .	29.787	29.785	29.800	29.813	29.792	29.766	29.769	29.803
June . .	29.944	29.943	29.963	29.978	29.964	29.931	29.923	29.949
July . .	29.922	29.916	29.929	29.941	29.925	29.888	29.883	29.912
August .	29.966	29.960	29.977	29.999	29.978	29.945	29.935	29.965
September.	29.993	29.984	30.011	30.026	29.999	29.964	29.969	29.998
October .	30.098	30.089	30.104	30.130	30.100	30.068	30.085	30.096
November.	29.990	29.990	30.002	30.027	29.995	29.966	29.981	29.987
December .	30.013	30.015	30.024	30.048	30.012	29.979	30.016	30.027
Ann'l means	29.987	29.983	29.997	30.017	29.992	29.955	29.962	29.987

TABLE II.

Monthly means of temperature by the dry thermometer.

Date.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	°	°	°	°	°	°	°	°
January .	26.63	25.66	24.93	26.70	31.98	33.81	30.03	27.95
February .	23.70	21.92	20.65	23.23	31.20	33.64	29.62	26.67
March . .	38.79	37.53	36.27	40.73	47.03	50.23	46.48	38.78
April . .	43.27	40.30	40.54	46.88	54.23	56.22	52.89	46.95
May . .	55.97	53.97	54.18	60.23	64.66	67.48	63.75	58.46
June . .	64.90	63.37	63.42	70.62	76.94	78.14	74.68	68.43
July . .	74.01	72.09	71.94	78.99	85.67	86.91	83.17	77.11
August .	68.19	68.14	67.60	73.53	81.01	82.18	77.58	75.25
September.	62.62	61.30	60.60	65.58	73.06	73.65	68.08	64.05
October .	49.02	47.64	46.97	52.19	59.89	61.15	54.66	50.75
November.	40.85	38.92	37.82	41.29	50.65	51.88	45.85	42.21
December .	28.22	27.55	27.27	29.06	34.22	34.62	31.18	29.02
Ann'l means	48.01	46.53	46.02	50.75	57.54	59.16	54.83	50.47

TABLE III.

Monthly means of temperature by the wet thermometer.

Date.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	°	°	°	°	°	°	°	°
January .	26.49	25.48	24.55	26.15	30.26	31.92	29.00	27.37
February .	23.18	22.33	21.54	22.28	28.48	30.51	28.42	25.48
March . .	37.58	36.68	35.51	38.65	43.06	44.99	42.81	39.96
April . .	41.89	40.32	39.61	43.91	49.16	50.26	47.60	44.46
May . .	54.68	53.32	53.21	57.18	59.72	61.02	59.53	56.52
June . .	63.52	62.51	62.43	66.90	70.47	70.79	69.06	66.11
July . .	72.33	71.29	71.14	75.14	77.94	78.49	77.10	74.02
August .	69.27	67.51	66.86	71.59	74.80	75.45	73.17	70.26
September.	62.16	60.83	60.30	63.76	67.68	68.00	65.38	62.97
October .	48.19	47.56	46.77	50.73	54.54	55.22	52.34	49.72
November.	39.89	38.24	37.29	39.81	45.35	46.00	42.62	40.44
December .	27.72	27.08	27.10	28.59	31.90	33.15	30.51	28.70
Ann'l means	47.24	46.10	45.56	48.72	52.61	53.82	51.46	48.83

TABLE IV.

Monthly means of temperature by the sun thermometer.

Date.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.	°	°	°	°	°	°	°	°
January .	25.08	24.32	23.71	39.95	66.92	56.41	27.58	26.01
February .	21.03	20.22	19.33	46.16	71.43	62.53	27.71	23.99
March . .	38.06	36.37	35.51	64.04	80.03	75.39	48.90	42.78
April . .	41.75	36.52	40.45	76.51	91.74	93.38	70.92	47.80
May . .	54.96	52.72	55.30	91.68	111.36	115.29	102.13	63.62
June . .	66.23	62.80	65.63	108.33	127.73	126.32	123.49	86.75
July . .	73.97	71.47	73.56	115.89	134.98	136.40	131.53	95.86
August .	69.36	67.16	67.20	104.73	133.28	136.03	125.41	81.45
September.	62.02	60.32	60.09	95.55	121.05	123.31	104.77	69.26
October .	47.16	46.19	45.45	75.29	91.85	91.47	67.42	49.93
November.	37.86	36.69	35.90	56.02	88.64	74.27	43.69	39.87
December .	26.37	25.21	25.12	37.35	61.84	48.00	28.27	26.83
Ann'l means	46.99	45.00	45.60	75.96	98.40	94.98	75.98	54.51

TABLE V.

Amount of rain and snow in 1868.

The first column contains the amount of rain and *melted* snow, and the second column exhibits the amount of snow in each month.

Month.	Inches.	Inches.
January	2.955	9.20
February	2.014	3.75
March	1.658	3.50
April	2.860	. .
May	4.822	. .
June	4.534	. .
July	5.136	. .
August.	4.769	. .
September.	6.096	. .
October	1.348	. .
November	5.005	. .
December	2.408	5.65
Total . . . . , ...	43.605	22.10

TABLE VI.

Showing the number of times that the wind blew from the north at the hours of observation.

Month.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.								
January . . .	2	4	8	2	4	2	1	2
February . .	4	3	3	3	3	2	3	5
March . . .	2	3	5	4	5	5	5	1
April	6	5	4	2	4	4	3	3
May	4	1	1	3	2	4	4	6
June	6	5	6	2	1	3	3	3
July	1	0	2	3	0	0	3	1
August . . .	1	0	0	2	0	1	1	1
September . .	1	2	2	2	1	3	2	0
October . . .	4	3	3	5	5	3	4	3
November . .	1	3	1	0	0	0	0	1
December . .	2	4	3	2	2	4	1	0
Total . . .	34	33	38	30	27	31	30	26

Showing the number of times that the wind blew from the northeast at th hours of observation

Month.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.								
January . . .	3	2	2	3	0	2	2	1
February . .	6	8	6	4	4	4	5	5
March . . .	3	4	4	3	5	4	3	4
April	2	2	3	2	4	1	2	1
May	2	2	5	4	1	5	4	4
June	4	5	2	3	4	4	1	3
July	2	1	2	2	4	1	0	2
August . . .	0	0	0	3	2	1	1	0
September . .	3	3	0	1	1	0	2	3
October . . .	4	2	4	6	1	0	1	4
November . .	0	1	1	3	0	0	1	1
December . .	3	2	4	6	1	1	0	1
Total . . .	32	32	33	40	27	23	22	29

Showing the number of times that the wind blew from the east at the hours of observation.

Month.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.								
January . . .	6	5	2	3	4	6	4	4
February . .	1	0	0	2	1	2	2	3
March . . .	3	3	3	3	2	3	5	5
April	2	2	1	2	1	2	1	1
May	4	2	2	4	2	4	5	2
June	0	1	0	4	2	1	3	1
July	2	2	1	0	1	2	2	0
August . . .	2	2	1	0	1	1	1	2
September . .	1	0	0	3	2	1	3	1
October . . .	2	2	1	0	2	3	4	4
November . .	3	1	0	1	3	3	3	2
December . .	0	0	2	0	0	2	4	2
Total . . .	26	20	13	22	21	30	37	27

Showing the number of times that the wind blew from the southeast at th hours of observation.

Month.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.								
January . . .	2	1	1	2	4	6	4	4
February . .	3	3	1	0	3	3	2	3
March . . .	5	4	1	2	1	2	4	5
April	4	1	0	2	2	1	2	3
May	3	4	2	0	3	2	4	3
June	2	1	1	2	1	5	1	2
July	1	0	1	0	1	3	5	5
August . . .	1	1	0	0	2	4	8	4
September . .	1	2	1	0	2	2	2	3
October . . .	2	1	0	0	1	2	3	3
November . .	2	1	0	0	2	1	2	1
December . .	3	3	1	0	2	1	3	4
Total . . .	29	22	9	8	24	32	40	40

Showing the number of times that the wind blew from the south at the hours of observation.

Month.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.								
January . . .	4	2	4	6	8	4	4	2
February . .	1	2	5	5	8	8	9	3
March . . .	3	3	6	7	10	7	6	5
April	4	4	4	9	11	9	9	5
May	2	2	2	4	7	4	4	4
June	2	3	2	1	3	5	6	5
July	5	3	0	4	13	15	11	5
August . . .	4	3	5	8	13	15	8	6
September . .	3	3	2	7	9	8	8	4
October . . .	5	3	4	6	12	10	3	1
November . .	4	3	3	2	5	7	4	4
December . .	2	2	2	2	6	4	3	2
Total . . .	39	33	39	61	105	96	75	46

Showing the number of times that the wind blew from the southwest at th hours of observation.

Month.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.								
January . . .	0	3	1	2	2	3	6	3
February . .	1	0	0	1	1	0	1	0
March . . .	3	2	2	2	2	1	1	1
April	3	2	5	2	3	5	4	5
May	4	3	1	3	1	5	3	2
June	3	0	1	5	8	5	6	4
July	7	7	9	10	4	6	8	7
August . . .	10	12	9	9	6	3	8	10
September . .	6	5	8	9	4	7	3	4
October . . .	5	4	3	4	2	1	4	3
November . .	2	1	2	4	3	2	3	4
December . .	1	2	1	4	1	2	3	2
Total . . .	45	41	42	55	37	40	50	45

TABLE VI—Continued.

Showing the number of times that the wind blew from the west at the hours of observation.

Month.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.								
January . . .	4	1	4	6	2	4	4	1
February . .	2	4	3	2	1	1	3	5
March . . .	0	2	3	1	3	3	2	0
April	1	3	5	1	2	4	1	1
May	1	1	6	4	5	3	1	5
June	6	7	10	8	8	4	6	4
July	7	11	10	9	5	1	1	6
August . . .	6	4	12	4	4	2	2	1
September . .	7	5	9	4	7	4	5	4
October . . .	1	2	4	3	6	5	2	4
November . .	1	5	12	12	11	6	5	4
December . .	6	4	4	6	8	4	4	4
Total . . .	42	49	82	60	62	41	36	39

Showing the number of times that the wind blew from the northwest at the hours of observation.

Month.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.								
January . . .	11	13	9	7	11	11	7	13
February . .	11	9	12	11	8	9	4	5
March . . .	12	10	7	9	3	6	4	11
April	9	11	8	8	5	4	9	12
May	10	16	12	10	8	6	6	4
June	7	8	8	6	3	3	4	8
July	6	7	6	3	3	3	1	5
August . . .	3	9	4	5	2	3	2	7
September . .	9	11	8	5	4	5	5	11
October . . .	11	14	11	7	6	7	10	9
November . .	20	18	15	11	7	13	14	15
December . .	12	12	11	8	8	8	10	13
Total . . .	121	138	111	90	68	78	76	113

TABLE VII.

Showing the number of times that it was clear at the hours of observation.

Month.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.								
January . . .	6	7	8	2	2	2	5	9
February . .	12	8	4	4	2	6	4	8
March . . .	5	5	2	5	3	2	2	8
April	6	7	4	3	1	0	1	6
May	1	1	5	0	0	0	0	2
June	6	5	2	5	0	1	2	4
July	4	4	3	2	2	1	0	3
August . . .	3	6	4	2	1	1	1	2
September . .	6	5	3	2	0	1	1	5
October . . .	8	8	4	1	1	5	4	7
November . .	11	10	6	5	2	3	6	9
December . .	9	8	3	3	1	3	5	5
Total . . .	77	74	48	34	15	25	31	68

Showing the number of times that cirrus clouds prevailed at the hours of observation.

Month.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.								
January . . .	2	1	1	1	3	6	0	2
February . .	0	1	4	2	5	2	0	3
March . . .	1	0	1	1	3	2	1	4
April	3	2	1	7	3	4	2	1
May	1	0	1	1	1	1	1	1
June	2	4	4	2	5	4	0	5
July	5	5	3	4	1	3	3	6
August . . .	0	1	1	0	1	0	1	4
September . .	3	0	0	4	6	1	1	1
October . . .	0	0	1	4	2	2	2	2
November . .	1	1	4	1	3	2	0	1
December . .	1	0	1	3	4	3	4	1
Total . . .	19	15	22	30	37	30	15	31

Showing the number of times that cirro-cumulus clouds prevailed at the hours of observation.

Month.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.								
January . . .	10	10	7	14	14	11	13	6
February . .	7	5	5	12	13	12	7	8
March . . .	14	13	11	11	13	14	13	8
April	13	12	9	9	14	12	17	11
May	16	17	16	22	25	24	20	19
June	14	17	17	20	20	20	22	13
July	14	11	15	18	24	23	19	10
August . . .	22	14	13	23	29	28	25	17
September . .	11	15	11	16	22	19	13	9
October . . .	8	11	11	19	17	16	7	9
November . .	7	7	7	14	18	17	12	10
December . .	12	9	12	12	13	12	9	15
Total . . .	148	141	134	190	222	208	177	135

Showing the number of times that cirro-stratus clouds prevailed at the hours of observation.

Month.	0h.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.								
January . . .	0	0	2	2	1	0	3	0
February . .	1	0	0	3	0	0	3	0
March . . .	0	0	2	0	0	0	2	1
April	1	1	0	0	1	2	0	2
May	0	0	0	1	0	0	1	1
June	1	1	0	2	0	0	0	2
July	0	1	1	1	0	0	0	4
August . . .	0	0	1	0	0	0	0	1
September . .	1	0	3	1	1	0	3	1
October . . .	1	1	0	0	0	0	2	0
November . .	1	1	2	1	1	4	1	1
December . .	0	2	2	0	0	1	1	0
Total . . .	6	7	13	11	4	7	16	13

TABLE VII—Continued.

Showing the number of times that cumulus clouds prevailed at the hours of observation.

Month.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.								
January . . .	6	7	5	4	3	4	3	7
February . .	5	9	9	2	4	4	4	5
March . . .	5	7	6	2	2	2	3	4
April	3	2	2	1	1	2	1	4
May	5	6	3	2	1	4	0	2
June	4	1	3	1	0	1	1	1
July	2	3	4	0	0	0	2	3
August . .	2	3	4	3	0	0	1	2
September . .	5	7	6	4	3	2	1	5
October . . .	8	5	4	4	3	2	6	4
November . .	4	4	2	0	2	1	3	4
December . .	5	8	4	3	3	2	6	4
Total . . .	54	62	52	26	22	24	31	45

Showing the number of times that cumulo-stratus clouds prevailed at the hours of observation.

Month.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.								
January . . .	0	0	0	0	0	0	0	0
February . . .	0	0	0	0	0	0	2	1
March . . .	1	0	2	0	0	0	6	0
April	0	0	2	1	0	0	4	0
May	0	1	0	0	0	0	2	0
June	0	0	0	0	1	0	1	2
July	0	0	0	0	0	0	0	2
August . . .	1	1	2	0	0	0	2	1
September . .	0	0	0	0	0	0	2	2
October . . .	1	0	1	0	1	0	4	1
November . .	0	1	2	4	0	0	3	2
December . .	0	0	3	3	0	2	1	0
Total . . .	3	3	12	8	2	2	27	11

Showing the number of times that stratus clouds prevailed at the hours of observation.

Month.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.								
January . . .	0	0	1	1	1	2	2	1
February . . .	1	1	3	0	1	0	4	1
March . . .	0	0	0	0	0	0	0	0
April	0	1	2	1	1	0	0	0
May	0	0	0	0	0	0	0	0
June	1	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0
August . . .	0	0	0	0	0	0	0	2
September . .	0	0	0	0	0	0	1	1
October . . .	0	0	2	0	0	0	1	0
November . .	0	0	0	1	3	2	4	2
December . .	0	1	1	0	0	0	2	1
Total . . .	2	3	9	3	6	4	14	8

Showing the number of times that nimbus clouds prevailed at the hours of observation.

Month.	oh.	3h.	6h.	9h.	Noon.	3h.	6h.	9h.
1868.								
January . . .	7	6	7	7	7	6	5	6
February . . .	3	4	4	6	5	5	5	3
March . . .	3	4	5	7	6	7	3	4
April	4	5	6	8	6	8	4	3
May	8	6	7	6	2	2	7	7
June	1	2	.3	1	3	2	3	2
July	2	3	1	1	1	2	2	1
August . . .	2	4	3	2	0	2	1	2
September . .	4	3	5	3	1	6	8	6
October . . .	3	3	5	1	3	3	4	5
November . .	6	5	6	2	2	2	2	2
December . .	1	1	3	3	5	5	2	2
Total . . .	44	46	55	47	41	50	46	4

LIST

OF

PUBLICATIONS PRESENTED TO THE LIBRARY

DURING

THE YEAR 1868.

LIST OF PUBLICATIONS PRESENTED TO THE LIBRARY DURING THE YEAR 1868.

Date.	Publications.	From whom received.
Jan. 14	Il Sole. Pel Prof. P. Tacchini. Florence	Prof. P. Tacchini.
	"Mécanique Céleste;" Réflexions sur l'hypothèse de La Place, relative à l'origine et la formation du système planétaire. Par M. Seguin, aîné	M. Seguin.
	Bulletin de l'Association Scientifique de France. Nos. 45, 46, and 47	U.-J. Le Verrier, Director of the Imperial Observatory, Paris.
18	Bulletin de la Société de Géographie. November, 1867	C. Maunoir, Secretary of the Geographical Society.
21	Dell' azione della luce solare, sopra dei corpori	Prof. C. F. Zantedeschi, Catania, Sicily.
29	Bulletino Meteorologico del R. Osservatorio di Palermo. No. 11. November, 1867	Prof. G. Cacciatore, Director.
	Notes and Queries. New series. January, 1868	Science and Art Department of Com. of Council of Education, London.
31	Bulletin de l'Association Scientifique de France. Nos. 1 to 39	U.-J. Le Verrier, President.
	Bulletin de la Société de Géographie. December, 1867	C. Maunoir, Secretary.
	Bulletino Meteorologico del Osservatorio del Ateneo Municipal de Manila. Jan., Feb., Mar., April, Oct., 1867. Resumen por 1866	Meteorological Observatory of the City Athenæum of Manila.
	Monthly Notices, Royal Astronomical Society. Vol. 28, Nos. 1 and 2	President of Royal Astronomical Society, London.
Feb. 8	Resumen de las Observaciones, Agosto, Setiembre, 1867, del R. Colegio de Belen, Hābana	Mag. and Met. Obs'y R. College of Belen, Havana.
14	Sitzungsberichte der k. Akademie der Wissenschaften. LV. Band, 1, 2, 3, 4, 5 Heft; LVI. Band, 1 Heft	Sec'y of the Imperial Academy of Sciences, Vienna.
	Annuaire de la Société Météorologique de France. Tome 14^{me}, 2^{me} partie, feuilles 27–36	Pres't of Meteorological Society of France, Paris.
	Neue einfache Methode für Zeit- und Längenbestimmungen. J. J. Astrand	Dr. Carl von Littrow, Vienna.
	Zeitschrift der österreichischen Gesellschaft für Meteorologie und Erdmagnetismus. Nos. 13, 14, and 15, Vol. II	Dr. Carl Jelinek, Vienna.
	Proceedings of Royal Geographical Society. Vol. XI, No. 6	H. W. Bates, Ass't Sec'y R. Geog. Soc'y, London.
	Mittheilungen aus Justus Perthes' geographischer Anstalt, 1867. No. XL. Ergänzungsheft, No. 22	Justus Perthes, Gotha.
	Bestimmung der Parallaxe des Sterns 34 Groombridge	Prof. A. Auwers, Berlin.
	Bestimmung der Bahn des Cometen III. 1860	Do.
	Meteorologiske Iagltagelser i det sydlige Norge. 1863–'64–'65–'66	The Director of the Observatory, Christiania.
	Meteorologiske Iagltagelser paa fem Telegrafstationer ved Norges Kyst, reducer de ag sammen stillede af J. J. Astrand	Do.
	Meteorologiske Iagltagelser paa Christiania's Observatorium. 1866	Do.
28	Journal of the London Statistical Society. 1867	F. Purdy, Editor, London.
	Programme de la Société Batave de Philosophie Expérimentale de Rotterdam	Sec'y of Batavian Soc'y of Philosophy, Rotterdam.
	Curvas que representan la marcha de los instrumentos meteorometricos. Nov., 1867	The Director of the Meteorological Observatory, City Athenæum, Manila.
Mar. 2	Intorno alle oscillazioni calorifiche orarie diurne mensili ed annue pel 1866. Zantedeschi	Prof. Fr. Zantedeschi, Padua.
10	On the climate of the country bordering upon the great North American Lakes. J. A. Lapham, LL. D	Dr. I. A. Lapham, Milwaukee.
13	Siderum Nebulosorum Observationes Havnienses. H. L. D'Arrest. Copenhagen	Dr. H. L. D'Arrest, Copenhagen.
	Le Globe. Bulletin de la Société de Géographie de Génève	The Pres't of the Geographical Soc'y of Geneva.
	Meteorologische Beobachtungen an den registrirenden Instrumenten auf der Sternwarte in Bern. März, April, Mai, 1867	Director of Central Meteorological Bureau, Zurich.
	Mittheilungen aus Justus Perthes geographischer Anstalt, 1867. No. 1	Justus Perthes, Gotha.
18	Transactions of the Chicago Academy of Sciences. Vol. I, Part I	Wm. Stimpson, Secretary, Chicago.
19	Bulletin de l'Association Scientifique. No. 57	U.-J. Le Verrier, President.
	Bulletin de la Société Impériale Zoologique d'Acclimatation	A. G. St. Hilaire, Secretary.
April 4	Mittheilungen aus dem Osterlande, Gemeinschaftlich herausgegeben vom Gewerbe-Vereine von der naturforschenden Gesellschaft und dem bienenwirthschaftlichen Vereine zu Altenburg. 18. Band, 1. and 2. Heft	Dr. Hanns, Secretary of the Society of Natural Sciences, Altenburg.
	Tafeln der Egeria. P. A. Hansen	E. H. Weber, Sec'y R. Saxon Academy of Sciences.
	Von der Methode der kleinsten Quadrate. Hansen	Do.
	Bericht über die Verhandlungen der k. Sach. Gesellschaft der Wissenschaften zu Leipzig. 1866, Vol. IV, V; 1867, I, II	Do.
	Sitzungsberichte der k. Bayer. Akademie der Wissenschaften zu München. 1866, Vol. II, Heft 2, 3, 4; 1867, Vol. I, Heft 1, 2, 3, 4; Vol. II, Heft 1, 2	Prof. C. Weidman, Secretary of the Bavarian Academy of Sciences, Munich.
	Annalen der k. Sternwarte bei München. XVI. Band	Dr. J. V. Lamont, Munich.
	Beobachtungen an der k. k. Central-Anstalt für Meteorologie und Erdmagnetismus. Aug., Sept., Oct., Nov., 1867	Dr. C. Jelinek, Vienna.
	Zeitschrift der österreichischen Gesellschaft für Meteorologie. Jelinek und Hann. Nos. 19, 20, 22, 23, 24	Do.
	Normale fünftägige Wärmemittel für 80 Stationen in Oesterreich, bezogen auf den Zeitraum 1848–'65	Do.
	Ueber die Witterung des Jahres 1866 in Bern. H. Wild	Dr. H. Wild.
	Ueber Fohn und Eiszeit	Do.
	Variationen der Declinationen der Magnetnadel. Beobachtet in Krakau	Dr. Max. Weisse, Krakau.
	Stündliche Barometer. Beobachtungen zu Krakau in den Jahren 1848–'56. Weisse und Kunes	Do.
	Ephemerides Astronomicas calculadas para o meridiano do Observatorio da Universidade de Coimbra. 1869	Señor R. Ribeiro de Sousa Pinto, Director.

Date.	Publications.	From whom received.
April 4	Posição geografico do Observatorio Astronomico da Universidade de Coimbra	Señor R. Ribeiro de Sousa Pinto, Director.
	Resumen de las observaciones verificadas durante el año 1867	Observatory of the Athenæum of Manila.
	Monthly Meteorological Bulletin. December, 1867	Do.
10	Zeitschrift der österreichischen Gesellschaft für Meteorologie. Vols. I and II	Dr. C. Jelinek, Vienna.
11	Añuario del R. Observatorio de Madrid. Año VIII. 1868	Antonio Aguilar, Director.
	Resumen de las observaciones effectuadas en la Peninsula. Dec., 1865, to Nov., 1866.	Do.
	Observaciones meteorologicas effectuadas en el Real Observatorio de Madrid. 1865 to 1866	Do.
	Informe del R. Observatorio Astronomico y Meteorologico de Madrid. 1867	Do.
	Annales de l'Observatoire Impérial de Paris. U.-J. Le Verrier, Directeur. Tomes 21, 22	U.-J. Le Verrier, Director.
	Atlas météorologique. Année 1866	Do.
	Mittheilungen aus Justus Perthes' geographischer Anstalt. 1868. No. 1	Justus Perthes, Gotha.
	Bulletino Meteorologico del R. Osservatorio di Palermo. Gennaro 1868	G. Cacciatore, Director.
May 1	Memoirs Royal Astronomical Society, London. Vols. 35 and 36	President Royal Astronomical Society.
	Astronomical, magnetic, and meteorological observations made at the Greenwich Observatory, 1865	G. B. Airy, F. R. S., Astronomer Royal, London.
	Results of astronomical, magnetic, and meteorological observations made at the Greenwich Observatory, 1865	Do.
11	Osservazioni del F. Zantedeschi all' argomento addotto all' impotesi della elettricita negativa d'induzione che a forma di anello circonda una nube, che si resolve in pioggia neve o grandino	Prof. F. Zantedeschi, Padua.
23	Vierteljahrsschrift der astronomischen Gesellschaft für Jan., April, July, Nov. 1866; Jan., April, July, Nov. 1867	Dr. A. Auwers, Secretary of the German Astronomical Association, Leipzig.
	Publications of the German Astronomical Society, Nos. I to VIII inclusive, viz: 1. Hülfstafeln zur Berechnung specieller Störungen. Lesser 2. Tafeln der Metis. Lesser 3. Ueber das Problem der drei Körper im Allgemeinen. Weiler 4. Tables pour la réduction du temps en parties décimales du jour. G. J. Houet. 5. Reduction der Beobachtungen der Fundamental-Sterne. A. Auwers 6. Rechtwinkelige und Polar-Coordinaten des Jupiter. Foerster 7. Untersuchungen über veränderliche Eigenbewegungen. Auwers 8. Genährte Oerter der Fixsterne von welchen in astronomischen Nachrichten. Band 1–66. Schjellerup	Do.
27	Meteorologische Beobachtungen angestellt in Dorpat im Jahre 1867. A. Oettinger.	Dr. A. Oettinger, Dorpat.
	Bulletin Mensuel de la Société Impériale d'Acclimatation. 2^{me} série, Tome V, No. 4.	J. L. Souberain, Secretary, Paris.
	Bulletin of the Meteorological Observatory, City Athenæum, Manila. Feb., 1868	Director of the Observatory, Manila.
June 9	Suggestions to mariners as to the methods for determining Longitude, &c. Littrow.	Dr. C. von Littrow, Vienna.
17	Philosophical Transactions of the Royal Society. Vol. 157, Part 11	Prof. W. H. Miller, Foreign Secretary, London.
	Proceedings of the Royal Society. Nos. 95 to 100	Do.
	Annuaire de la Société Métérologique de France. Tome 14^{me}, partie 1re, feuilles 1–8; tome 14^{me}, partie 2^{me}, feuilles 11–21	President of the Meteorological Society, France.
	Jahrbücher der k. k. Central-Anstalt für Meteorologie und Erdmagnetismus. Jelinek und Fritsch	Dr. C. Jelinek, Vienna.
	Oversigt over det k. Danske Videnskabernes Selskabs Ferhandlingen og dets Medlemmers Arbeider i Aaret 1867	Prof. J. J. Steenstrup, Secretary Royal Danish University, Copenhagen.
	Resultate aus den meteorologischen Beobachtungen angestellt an mehreren Oertern im K. Sachsen in den Jahren 1826 bis 1861. Dritter Jahrgang	Dr. C. Bruhns, Director of the Observatory, Leipzig.
18	*Πραγματεια περι του γενομενου, τῳ 1867ῳ Ιανουαριου 23η σεισμου της Κεφαλληνιας.* J. J. Schmidt	J. J. Schmidt, Director of the Observatory, Athens.
	Πραγματεια περι του γενομενου, τῳ 1861ῳ Δεχεμβρ 26η (14η) σεισμου του Αιγιου. J. J. Schmidt	Do.
	Sur une nouvelle méthode pour déterminer en mer l'heure et la longitude par les différences des hauteurs circummeridiens. Littrow	Dr. C. von Littrow, Vienna.
	Essai de la méthode de M. de Littrow: Extrait d'une lettre de M. Lemoine à M. Faye.	Do.
	Zeitschrift der österreichischen Gesellschaft für Meteorologie. Jelinek. Band II, Heft 16, 17, 18	Dr. C. Jelinek.
	Beobachtungen an der k. k. Central-Anstalt für Meteorologie. July, 1867	Do.
	Die periodischen und nicht-periodischen Veränderungen des Barometerstandes, etc. Prestel, 1866	Dr. M. A. F. Prestel.
	Resumen de las observaciones del mes de Dicembre, 1867. R. Colegio de Belen	Director of the Observatory of the Royal College of Belen, Havana.
July 1	Smithsonian Contributions. Vol. XV	Prof. J. S. Henry, Sec'y Smithsonian Institution.
2	General Tables of Meteorological Observations made in 1863–'67, and Monthly Reports, January to April, 1868, at National Military School of Medicine in Roumania	L. J. Czapkay, United States Consul, Wallachia.
8	Address at the anniversary meeting of the Royal Geographical Society, May 25, 1868. By Sir R. Murchison	F. W. Bates, Ass't Sec'y Royal Society, London.
	United States Official Register, 1866–'67	Hon. J. D. Cox, Secretary of the Interior.
23	Zeitschrift der österreichischen Gesellschaft für Meteorologie. Vol. III, No. 13	Dr. C. Jelinek, Vienna.
	Meteorological Bulletin of the City Athenæum, Manila	Director of the City Athenæum of Manila.
30	General Meteorological Register of the Provincial Magnetic Observatory, Toronto, Canada, 1866. Monthly Register of the Observatory, July, 1866, to May, 1867	The Director of the Provincial Magnetic Observatory, Toronto, C. W.
31	Bulletin de la Société d'Acclimatation. Juin 1868	G. St. Hilaire, Secretary.
	Bulletin de la Société de Géographie de France	C. Maunoir, Secretary.
Aug. 11	Meteorological Bulletin of the City Athenæum, Manila, for April, 1868	Director of the City Athenæum of Manila.
12	Report of Astronomer Royal to Board of Visitors Greenwich Observatory. June, 1868.	G. B. Airy, Esq., F. R. S., Astronomer Royal.
	Der Schweizer Föhn. H. Wild	Dr. H. Wild, Berne.
	Annales de l'Observatoire Royal de Bruxelles. 1868. Quetelet	A. Quetelet, Director.
	Annales Météorologiques de l'Observatoire de Bruxelles, première année 1867	Do.
	Zeitschrift der österreichischen Gesellschaft für Meteorologie und Erdmagnetismus. Vol. III, Nos. 1 to 8	Dr. C. Jelinek, Vienna.

Date.	Publications.	From whom received.
Aug. 12	Mittheilungen aus Justus Perthes' geographischer Anstalt, Nos. V, VI, 1868, und Ergänzungsheft, No. 23	Justus Perthes, Gotha.
	Proceedings of the American Academy of Arts and Sciences, pp. 185 to 344, vol. for 1867	President of the American Academy, Boston.
	Sur les étoiles filantes périodiques du mois d'Août 1867, et sur les orages observées en Belgique pendant l'année 1867. Quetelet	Prof. A. Quetelet, Director of the Royal Observatory, Brussels.
	Étoiles filantes du milieu de Novembre 1867, et état de l'atmosphère à la même époque. Quetelet	Do.
	Sur la loi statistique des tables humaines et sur la régularité que suit cette loi dans son développement, à chaque âge. Quetelet	Do.
	Sur la sixième session du Congrès Statistique des différents peuples, tenu à Florence 1867. Quetelet	Do.
	Annuaire de l'Observatoire Royal de Bruxelles. 35me année. Quetelet	Do.
	Annalen der k. k. Sternwarte in Wien. Dritte Folge. Vierzehnter Band. Jahrgang 1864	Dr. C. von Littrow, Vienna.
	Ueber Fixstern-Systeme. Weiss	Dr. E. Weiss, Vienna.
	Bahn-Bestimmung von Maja	Do.
	Bericht über die Beobachtungen während der ring-förmigen Sonnenfinsterniss am 6. März, in Dalmatien	Do.
	Berechnung der Sonnenfinsternisse in den Jahren 1868-'70	Do.
	Sitzungsberichte der k. Akademie der Wissenschaften. Naturwissenschaftliche Classe. Band LVI. Erste Abtheilung, 7, 8, 9, 10. Zweite Abtheilung, 8, 9, 10	Dr. A. Schrötter, Secretary of the Imperial Academy of Sciences, Vienna.
	Denkschriften der k. Akademie der Wissenschaften. Mathematisch-naturwissenschaftliche Classe. Siebenundzwanzigster Band	Do.
	Atlas des orages de l'année 1865; rédigé par l'Observatoire Impérial	U.-J. Le Verrier, Director of the Imperial Observatory, Paris.
	Atlas Météorologique de l'Observatoire Impérial. 1866	Do.
	Atlas des mouvemens généraux de l'atmosphère. 1864. Juin-Décembre	Do.
14	American Ephemeris and Nautical Almanac for 1870	Prof. J. H. C. Coffin, Superintendent.
	Della differenza di distribuzione dell' elettrico negli stratti aerei delle atmosfere elettriche e nei conduttori solidi isolati immasi nei medesimi	Prof. F. Zantedeschi, Padua.
21	Dr. William Olbers Abhandlung über die leichteste und bequemste Methode, die Bahn eines Cometen zu berechnen. Nachtrag zu der zweiten Auflage, die Fortsetzung und Ergänzung des Verzeichnisses der bisher berechneten Cometenbahnen bis zum Jahre 1864 enthaltend. Dr. J. G. Galle. Breslau	Dr. J. G. Galle, Director of the Observatory, Breslau, Silesia.
	Bulletin de la Société de Géographie. Juillet	C. Maunoir, Secretary.
23	Della necessita di nuovi studi meteorologico per determinare quale relazione possa avere la variazioni di colore delle cartoline ozonoscopische coll' invasione o sviluppo del cholera morbus. Zantedeschi	Prof. F. Zantedeschi, Padua.
Oct. 10	Mittheilungen aus Justus Perthes geographischer Anstalt. 1868. Vol. II	Justus Perthes, Gotha.
	Schriften der naturforschenden Gesellschaft in Danzig. Neue Folge, 2. Band, 1. Heft.	A. Menze, Secretary, Danzig.
	Proceedings of the Royal Geographical Society. Vol. XII, Nos. 1, 2, 3, 4	H. W. Bates, Assistant Secretary, London.
	Jahresbericht der k. k. Ober-Realschule am Schottenfelde in Wien für die Studien-Jahren 1861-'67	Royal High School, Schottenfelde.
	Journal of the Scottish Meteorological Society, April, 1868	A. Buchan, Secretary, Edinburgh.
	Meteorologische Beobachtungen der Sternwarte in Bern. June to November, 1867	Dr. R. Wolf, Zurich.
	Bericht über die Thätigkeit der St. Gallischen naturwissenschaftlichen Gesellschaft während des Vereinjahres 1866-'67	Dr. Wartman, Director.
	Libros del Saber del Astronomia del Rey Don Alfonso X. de Castilla. Tome V. pt. I.	The Academy of Sciences, Madrid.
	Bulletin Hebdomodaire de l'Association Scientifique de France. No. 87	U.-J. Le Verrier, President.
	Bulletin Mensuel de la Société Impérial Zoologique d'Acclimatation. 2me série, Tome V, No. 8	M. Eugène Grisard, rue de Lille, Paris.
28	Documenti intorno agli studi spettroscopi	Prof. C. Zantedeschi, Padua.
31	Meteorological Bulletin of the City Athenæum, Manila. July, 1868	Director of City Athenæum, Manila.
Nov. 4	Beobachtungen an der k. k. Central-Anstalt für Meteorologie. July, 1868	Dr. C. Jelinek, Vienna.
	Telegraphische Witterungsberichte. September, 1868	Do.
10	Bulletin Mensuel d'Acclimatation. 2me série, Tome. V, No. 9	Eugène Grisard, Agent, Paris.
23	Remarques sur les colorations ozonoscopiques obtenus à l'aide d'un réactif de Jame de Sedan et sur l'échelle ozonométriques de M. Beugny. M. Poey	M. André Poey, Director of Observatory, Havana.
	Sur l'inversion diurne et nocturne de la température jusqu'au limite de l'atmosphère et sa répartition de l'horizon au zénith. Poey	Do.
	Sur la non existence sous le ciel du Mexique de la grande pluie d'étoiles filantes de Novembre 1866, et du retour périodique du mois d'Août. Poey	Do.
	Description d'un ozonographe et d'un actinographe destinées à enregistrer de demi-heure en demi-heure l'ozone atmosphérique et l'action chimique de la lumière ambiante. Poey	Do.
	Recherches experimentales sur la polarisation atmosphérique observée sous le ciel tropical de la Havane. Poey	Do.
	Température de l'Océan Atlantique comparée à celle de l'air depuis Southampton jusqu'à la Havane. Poey	Do.
	Sur la rotation azimutale des nuages. Poey	Do.
	Sur l'action chimique de la lumière diffusée observée à la Havane à l'aide du nouvel actinographe chimique. Poey	Do.
	Bibliographie Cycloniquie; catalogue comprenant 1008 ouvrages sur les ouragans et les tempêtes cycloniques. Poey. 2me édition. 1866	Do.
	Instructions et considérations synthétiques sur la nature, la constitution et la forme des nuages. Poey	Do.
	Travaux sur la météorologie, la physique du globe en général, et sur la climatologie de l'Isle de Cuba et des Antilles. Poey	Do.
24	Report of an inquiry into the connection between strong winds and barometrical differences, presented to the committee of the Meteorological Office. R. H. Scott	R. H. Scott, Director Meteorological Office, London.

Date.	Publications.	From whom received.
Nov. 24	Report of the Meteorological Committee of the Royal Society for the year ending December 31, 1869	R. H. Scott, Director Meteorological Office, London.
	Journal of the Royal Geographical Society. 1867	C. H. Markham and R. H. Major, Secretaries Royal Geographical Society, London.
Dec. 8	Mittheilungen aus Justus Perthes geographischer Anstalt. 1868. Nos. 8 and 9	Justus Perthes.
	Radcliffe Observations for 1865	Rev. R. Main, A. M., Radcliffe observer.
	Observaciones meteorologicas effectuadas en el Real Observatorio de Madrid. 1866–1867	Señor A. Aquilar, Director of Observatory, Madrid.
	Memorie dell Osservatorio del Collegio Romano. Secchi	Padre A. Secchi, Director of Observatory, Rome.
	Nuovo experimenti sulle stelle cadenti fatti all' Osservatorio del Collegio Romano. 1861. Secchi	Do.
	Sulla relazione de fenomeni meteorologici colle variazioni del magnetismo terrestre, 1864. Secchi	Do.
	Sul clima de Roma. 1866	Do.
	Catalogo delle stelle di cui si e determinato lo spettro luminoso all' Osservatorio dell Collegio Romano. Secchi	Do.
	Ricerche sulle macchie solari e i loro movimenti. P. Secchi	Do.
9	Catalogo di 1321. Stelle doppie misinate col grande equatoreal di merz all' Osservatorio del Collegio Romano	Do.
	Osservazioni meteorologiche dell' Osservatorio del Collegio Romano. 1862. Secchi	Do.
	Osservazioni meteorologiche del mese di Genero 1864. Secchi	Do.
	Misina della base trigonometrica eseguita sulla Via Appia per ordine del Governo Pontifico. 1854–'55. Secchi	Do.
	Memorie dell' Osservatorio Romano del Collegio Romano. Nuovo serie. Vol. II. 1860–'63. Secchi	Do.
	Bulletino Meteorologico dell' Osservatorio del Collegio Romano. Vol. V, 1866. Vol. VI, 1867. Secchi	Do.
	Ricerche sulla corrente elettrica e sul analogie coi fenomeni idraulici. P. A. Secchi. 1864	Do.
	Osservazioni e ricerche astronomiche sulla grande cometa del Giugno 1861. P. A. Secchi. 1861	Do.
	Zeitschrift der österreichischen Gesellschaft für Meteorologie. Nos. 9, 10, 11, 12	Dr. C. Jelinek and J. Hann.
15	Report of the Commissioner of Education, submitted to the Senate and House of Representatives June, 1868	Dr. Henry Barnard, Commissioner.
24	Bulletin Mensuel de la Société Impérial Zoologique d'Acclimatation. 2^{me} série, Tome V, No. 10. October, 1863	M. Eugène Grisard, Agent, rue de Lille 19, Paris.
	Telegraphische Witterungsberichte der k. k. Central-Anstalt für Meteorologie und Erdmagnetismus. November, 1868	Dr. C. Jelinek, Vienna.
	Beobachtungen an der k. k. Central-Anstalt für Meteorologie und Erdmagnetismus. October, 1868	Do.
	Curvas que representan la marcha de los instrumentos meteorometricos durante el mes de Agosto, 1868	The Director of the Meteorological Observatory of the City Athenæum of Manila.

APPENDIX I.

A CATALOGUE

OF

1963 STARS AND OF 290 DOUBLE STARS,

OBSERVED BY

U. S. NAVAL ASTRONOMICAL EXPEDITION

TO THE

SOUTHERN HEMISPHERE,

DURING THE

YEARS 1850-'51-'52.

TABLE OF CONTENTS.

		Page.
SECTION I.	Preliminary and Historical Remarks	5
II.	The Observatory and its Situation	6
III.	The Transit Circle	7
IV.	The Clock, Barometer, and Thermometer	8
V.	Observers and Method of Observation	8
VI.	Instrumental Constants	8
VII.	Fundamental Catalogue	9
VIII.	Annual Precession, Aberration, and Nutation	11
IX.	Proper Motion	11
X.	Refraction	11
XI.	Star Magnitudes	11
XII.	The General Catalogue	12
XIII.	Catalogue of Double Stars	12
XIV.	Persons who made the Reductions	13
	The General Catalogue	15
	Notes to the General Catalogue	59
	The Catalogue of Double Stars	61

PREFACE.

I.—*Preliminary and Historical Remarks.*

In consequence of a letter received from Dr. C. L. Gerling in the summer of 1847, urging the desirability of observing the planet Venus about the time when it is stationary, in order to obtain a better value of the solar parallax than Encke's, which was then generally adopted, Captain James M. Gilliss, of the United States Navy, conceived the idea of an astronomical expedition to Chili for the purpose of making the required observations in conjunction with the United States Naval Observatory at Washington. The proposed expedition being warmly advocated by all the prominent scientific men in the country, and the American Philosophical Society and the American Academy of Arts and Sciences having passed resolutions recommending it to the favorable consideration of the government, on August 3, 1848, Congress appropriated $5,000 to defray the necessary expenses, and on January 26, 1849, $6,400 more were granted to purchase instruments. With the funds thus provided the expedition was fitted out on a much more extensive scale than was originally contemplated, and the intended objects of observation were correspondingly increased. It was furnished with two equatorial telescopes—one of six and a half, the other of four, inches clear aperture, a transit circle, an astronomical clock, three chronometers, and a full set of magnetic and meteorological instruments. Captain (at that time Lieutenant) Gilliss was placed in charge of the expedition, and Passed Midshipmen A. MacRae and Henry C. Hunter, and Captain's Clerk E. R. Smith, were assigned to him as assistants. About three months after the arrival of the expedition in Chili Mr. Hunter was thrown from a horse and injured to such an extent that it was necessary for him to return to the United States. His place was filled by Mr. S. Ledyard Phelps, master United States Navy. On June 25, 1850, Passed Midshipman MacRae was made a lieutenant.

The expedition was absent from the United States from August 16, 1849, till November 16, 1852, and upon its return the work of reducing and discussing the observations and preparing them for publication was at once begun under the direction of Captain Gilliss. It was his design to embody them in six large quarto volumes, the contents being as follows: Volume I. Chili, its geography, climate, earthquakes, government, social condition, mineral and agricultural resources, commerce, &c.; Volume II. Lieutenant MacRae's report on the Andes and Pampas, and reports by various eminent scientific men on the collections in Natural History, Fossils, and Indian Remains, made by the expedition; Volume III. Observations on the planets Mars and Venus to determine the Solar Parallax; Volume IV. Observations made with the transit circle to determine the Right Ascensionsand Declinations of 1,963 Fixed Stars; Volume V. Zone observations made with the transit circle, giving the positions of about 27,500 Fixed Stars lying within 25° of the South Pole; Volume VI. Magnetic and Meteorological Observations.

The force employed on the work was small and its progress slow; but previous to the death of Captain Gilliss Volumes I, II, III, and VI had been published, and the reductions of the observations to be contained in Volumes IV and V were well advanced. After his death the computations for Volume IV were finished and the manuscript prepared for the printer; and Volume V was so far advanced that the labor of one computer for about a year will finish it also. Then the appropriation being exhausted, and no more funds being available, the work was necessarily stopped, and all the papers of the expedition were turned over to the United States Naval Observatory for safe-keeping. As it is not now probable that Volumes IV and V will ever be published according to the original plan, and as several applications have been made to the Naval Observatory for manuscript copies of the results of the observations contained in these volumes, it has been deemed desirable to publish the following catalogue, which embraces the results of all the observations which were to have been contained in Volume IV. It is also hoped that it may yet be possible to obtain sufficient funds to complete the reductions for Volume V, and publish a catalogue of the stars which were to have been contained in it.

II.—*The Observatory and its Situation.*

Near the eastern limit of the City of Santiago, in Chili, stands a rocky eminence, about two hundred feet high, known as the Hill of Santa Lucia. On its northern slope, just below the summit, are two small level terraces, the lower and larger of which was selected by Captain Gilliss as the site of the building destined to contain the transit circle and astronomical clock of the expedition. By means of tri-hourly barometrical observations, made during all the thirty-three months of his stay, Captain Gilliss found that this terrace is elevated 1,963 feet above the level of the sea. The whole hill is composed of stratified columnar porphyritic rocks, which, at a little distance, may easily be mistaken for basalt.

Trenches were excavated for the foundations of the observatory on the northeast portion of the terrace, so that the north and east sides of the building were upon the very edges of the rapid slopes; and, except a narrow pathway between the south front and the acclivity leading to the rotary observatory, the only unoccupied ground was to the west. This was a space perhaps twenty by twenty-five feet, most of which is bare rock, in nearly horizontal layers, whose inequalities were filled in with coarse sand and finely broken fragments of porphyry. The foundation was built of stone and mortar to a height of six inches above the surface, and the larger portion of it was based upon the native rock.

The observatory building was entirely of wood, twenty-two feet long, eighteen feet wide, and eighteen feet high to the eaves, with a pitch to its roof of five feet. It was constructed at Washington, and its different parts indelibly marked, so that when taken down and transported to Chili there was no difficulty in putting them together again. Except the roof, its weather-boarding was tongued and grooved, and held in place by screws. The boards of the roof were covered with stout canvas, tightly drawn over, nailed down, and painted. In the center of the north and south sides there were meridian openings twenty inches wide, that extended to within 3.5 feet of the floor. They were closed by vertical doors opening inward, which were secured by two ordinary door-latches connected by an iron rod; and roof doors that met at the ridge, and could be opened by levers and pulleys within the building. To prevent the entrance of drifting rain, these latter doors were made four inches wider than the openings, and with half-inch grooves along the under edges that corresponded with similar grooves in the jambs. At the ridge of the roof the joint between these doors was covered by a small trap, beveled to fit the ridge, and so hinged that it went up with the roof-door first opened, and at three inches from the vertical came against a steel spring, which caused it to fall again when relieved from the pressure of the door last closed. In each of the gable ends of the observatory there was a broad door with transom lights.

The rock was laid bare for the circle and clock piers, and, in the former case, was leveled to receive the stone blocks on which the piers were immediately to rest. These blocks, which were of the same material as the piers, were three feet square by six inches thick, and were set in hydraulic cement. The piers were of coarse-grained red porphyry, six feet seven inches high above the floor, two feet 1.3 inches square at the floor, the three external faces battering to a height of four feet seven inches, above which a horizontal section was one foot seven inches square. The inner faces were vertical, and each pier was composed of three pieces, with hydraulic cement between their joints. Had it been practicable to quarry single blocks of suitable dimensions, there was no machinery at Santiago by which they could have been raised to the site of the observatory.

The clock pier was of timber, twelve inches wide, four inches thick, and eight feet long, of which two feet was imbedded in masonry below the floor of the observatory. The floor joists were framed and the flooring laid without contact with the piers.

From 371 observations made on the circumpolar stars σ Octantis, β Hydri, β Chamæleontis, and α Trianguli Australis, part of the observations being made at the upper culminations and part at the lower, Captain Gilliss found for the latitude of the transit circle

$$33^\circ\ 26'\ 25''.89 \pm 0''.087 \text{ south.}$$

From a series of moon culminations, including 162 observations of the moon's first limb and 49 of its second limb, compared with corresponding observations at observatories whose positions are well determined, Captain Gilliss found for the longitude of the transit circle

$$4^{h}\ 42^{m}\ 33^{s}.74 \pm 0^{s}.093,$$

and from 24 occultations he found

$$4^{h}\ 42^{m}\ 34^{s}.16 \pm 0^{s}.922.$$

Giving each result from a moon culmination the weight 1, and each result from an occultation the weight 2, and then taking the mean by weights of all the individual results, Captain Gilliss found for the longitude of the transit circle

$$4^{h}\ 42^{m}\ 33^{s}.81$$

west of Greenwich, and that value he adopted.*

III.—*The Transit Circle.*

The transit circle was made by Pistor & Martins, of Berlin, and its general design was very similar to that of the transit circle constructed by the same makers in 1865 for the United States Naval Observatory. The length of its axis between the bearing points in the Y's was 39.3 inches, and its entire length 40.6 inches. The pivots were of steel, 1.6 inches in diameter, and 3.5 inches long. The object-glass of the telescope had a clear aperture of 4.5 inches, and a focal length of 73 inches, and was considered to be, in every respect, of very superior quality. There were two systems of wires in the common focus of the object and eye-glasses. One system, which was used for observations of right ascension, comprised seven fixed vertical wires, at intervals of about 17.0 seconds of time, a fixed horizontal wire that crossed the center of the field, and a single vertical wire which could be moved by a micrometer screw. The other system, which was used for observations of declination, comprised seven horizontal wires, at intervals of about 4′ 14″, the whole system being movable by a micrometer screw, one revolution of which was equal to 27″.93. By means of suitable racks and pinions, the eye-piece could always be placed perpendicularly over any wire in either system; and means were provided by which the observer could use either a bright field with dark wires, or a dark field with bright wires, as might be most desirable. Accompanying the instrument were four positive eye-pieces, magnifying from 75 to 300 diameters, and a collimating eye-piece, which consisted of a single lens of low power, with a diagonal reflector of highly polished plate-glass placed before it. The magnifying power usually employed in the observations was 96 diameters.

The instrument was provided with two circles, precisely similar to each other, each of which was cast in a single piece, and was of somewhat more than the ordinary massiveness. They were each 38.3 inches in diameter from outside to outside, and each carried an inlaid band of silver 37.0 inches in diameter, which was divided into spaces of 2′. One of them only was numbered, the figures running from 0° to 360°, and the 0° and 180° divisions being placed perpendicularly to the optical axis of the telescope. Each circle was read by two microscopes, mounted in the same manner as those belonging to the transit circle of the United States Naval Observatory, and placed so as to define the extremities of a horizontal diameter; that is, when the fixed horizontal wire of the telescope pointed to the nadir, microscope A, the northwest one, read accurately 180°; B, the southwest one, 0°; C, the southeast one, 180°; and D, the northeast one, 0°. These microscopes were of the ordinary English box form, and their screws each moved two parallel spider lines, placed about 8″ apart. The readings were made by placing these wires so that a circle division bisected the space between them. One revolution of the screws represented 1′, and their heads were divided into 120 equal spaces, so that each division represented 0″.5. One microscope on each circle carried a pointer which consisted of a slip of silver with a horizontal line engraved upon it.

---

* When the expedition returned to the United States all the instruments and buildings were purchased by the Chilian government and made the National Observatory, Dr. C. W. Moesta being appointed director. The instruments remained in their old position till March 1862, and, from his own observations up to that time, Dr. Moesta found for the position of the transit circle, latitude 33° 26′ 25″.38, longitude $4^{h}\ 42^{m}\ 32^{s}.97$. In March 1862 the instruments were removed to the new observatory, the position of which is latitude 33° 26′ 42″.0, longitude $4^{h}\ 42^{m}\ 42^{s}.4$.

For determining the inclination of the axis there was a hanging level, each division of which was equal to 1″.10; but it is worthy of mention that it was so constructed that when in use its points of contact with the pivots were not vertically over their bearings in the Y's; that is, the distance between the inverted Y's of the level was less than the distance between the Y's of the instrument.

IV.—*The Clock, Barometer, and Thermometers.*

The sidereal clock, which was made by Molyneux of London for the United States Exploring Expedition, was full jeweled, had a dead beat escapement and a mercurial pendulum of which the glass cylinder was hermetically sealed within a slightly larger one of brass. Thus, no alteration of its imperfect compensation could be effected without a risk that it was scarcely prudent to incur in a country where the disturbances of rate by earthquakes were continually much greater than its fluctuations under changes of temperature.

The standard barometer differed very little from the form described by Professor F. R. Hassler in Senate Document No. 225, 2d Session, 27th Congress. It was of the cistern variety, had a tube whose internal diameter was 0.65 of an inch, and read by means of a vernier to 0.002 of an inch. It was suspended in the office of the expedition, about 900 feet northeast of, and 170 feet below, the transit circle. The correction applied to all its readings on account of this difference of level was —0.150 of an inch.

Both the thermometer used for ascertaining the temperature of the external air, and that attached to the barometer, were made by Tagliabue & Ronketti of New York. Their divided scales were about 7.75 inches long, graduated to single degrees, and ranged from —5° to + 135° Fahrenheit. The external thermometer was inclosed in a glass cylinder, having apertures both above and below the bulb, and, for convenience of reading, was suspended near the south meridian opening. The bulb of the other instrument was immersed in the mercury of the barometer cistern, and temporarily tied to its tube.

V.—*Observers, and Method of Observation.*

The observers were Captain Gilliss, Lieutenant MacRae, and Mr. Phelps.

The observations of right ascension were all made by the eye and ear method, and the uniform practice was to take a second from the clock face before the transit over each wire, and, by listening to the beats, to preserve the count and estimate the fraction of a second from the previous beat to the instant of bisection of the wire. The minutes were usually recorded at the middle and last wires, and the hours whenever necessary.

In observing zenith distances the usual practice was to move the telescope by means of its tangent screw so as to make the fixed horizontal wire bisect the star at the instant it was crossing the middle vertical wire, and to complete the observation by reading all the four circle microscopes. If the star was double its companion was observed at the same time by bisecting it with one of the horizontal wires moved by the zenith distance micrometer, and in such cases the distance from the position of the horizontal wire so used to the fixed horizontal wire was measured by the micrometer and applied, with its proper sign, to the circle reading. In no case was any star bisected in zenith distance more than once during any single culmination.

VI.—*Instrumental Constants.*

The inclination of the axis was determined, usually both before and after the observations of each night, by means of reversals of the hanging level; not less than three readings of the bubble being made in each position. It is worthy of remark that during all the time the observations were in progress the eastern pivot was rising at the rate of about 47″ per annum; the movement being very regular during the warmer months, (August to April,) but almost suspended during the winter, (May, June, July.) Of course this necessitated a frequent use of the adjusting screws in order to keep the axis anywhere near horizontal.

The error of collimation was determined each night, generally both before and after the observations for horizontality of the axis. The method employed was to point the telescope vertically downward over a basin of mercury, and then, by means of a collimating eye-piece, to measure the distance between the middle vertical wire and its image. The measurement was effected by moving the zenith distance micrometer until, by estimation, the middle movable horizontal wire and its image formed with the middle vertical wire and its image a square on each side of the fixed horizontal wire. This measurement was repeated with the middle movable horizontal wire alternately to the north and south of the fixed horizontal wire until accordance of the results established their accuracy. The collimation error of the middle vertical wire computed from these measures was corrected for the reduction from the middle wire to the mean of the set of seven wires, and for diurnal aberration. The values finally adopted in the reductions are means obtained from the individual determinations of a number of consecutive nights.

As has been already stated, the whole hill of Santa Lucia is composed of columnar-shaped porphyry, which, at a little distance, closely resembles basalt. Most of these rock columns stand at every inclination towards the east, and the action of the sun on them caused a lateral diurnal oscillation of that part of the hill on which the transit circle stood, such as to produce a relative motion of the western pier to the north of the eastern one, more or less rapid according to the season of the year, the state of the atmosphere, the temperature which had prevailed during the day, and the hour of commencement and velocity of the cold current from the Andes in the evening. This motion, together with the frequent earthquakes, rendered it necessary to determine the azimuth error at the beginning and end of each night's work. This was accomplished by observing pairs of stars above and below the pole, differing as nearly as possible twelve hours in right ascension; or by observing suitable pairs of stars differing as little as possible in right ascension, one star being to the north and the other to the south of the zenith, or both stars being to the north of the zenith, as might be most convenient. These stars were in all cases selected from the fundamental list given on page 10.

The zenith point correction was determined each night, both before and after the observations. For that purpose the telescope was pointed vertically downward over a basin of mercury, and then, by means of a collimating eye-piece and the tangent screw attached to the axis of the instrument, the fixed horizontal wire was made to cover its own image and the observation was completed by reading all the four circle microscopes.

VII.—*Fundamental Catalogue.*

The adopted right ascensions of all the stars observed by the expedition depend upon the following fundamental catalogue, the epoch of which is the instant when the sun's mean longitude was 280° on January 1, 1850. It has been constructed as follows: The positions of β Hydri, α Eridani, α Argus, ι Argus, η Argus, β Chamæleontis, α^1 Crucis, β Centauri, α^2 Centauri, α Trianguli Australis, α Pavonis, and α Gruis, have been determined from the observations of the expedition; the positions of η Ursæ Majoris, σ Octantis, γ Draconis, α Cygni, and 61^1 Cygni, have been taken from the English Nautical Almanac for 1850; and the positions of all the other stars have been brought forward from the Greenwich Twelve-Year Catalogue. Whenever any of the stars of this fundamental catalogue occur in the general catalogue, they are distinguished by being printed in small capitals.

Star.	Right Ascension, Jan. 1, 1850.	Annual Proper Motion.	Star.	Right Ascension, Jan. 1, 1850.	Annual Proper Motion.
	h. m. s.	s.		h. m. s.	s.
α Andromedæ	0 0 38.59	+ 0.01	12 Canum Venaticorum .	12 49 0.14	− 0.02
γ Pegasi	0 5 31.01	+ 0.01	α Virginis	13 17 17.81	0.00
β Hydri	0 17 46.98	+ 0.72	η Ursæ Majoris	13 41 37.42	− 0.03
β Ceti	0 36 3.45	+ 0.02	η Bootis	13 47 32.56	0.00
θ¹ Ceti	1 16 31.59	0.00	β Centauri	13 53 17.33	− 0.01
α Eridani	1 32 7.37	0.00	α Bootis	14 8 49.27	− 0.08
α Arietis	1 58 43.69	+ 0.02	α² Centauri	14 29 27.57	− 0.47
γ Ceti	2 35 31.95	− 0.01	ε Bootis	14 38 26.16	0.00
α Ceti	2 54 26.59	0.00	α² Libræ	14 42 35.34	0.00
η Tauri	3 38 34.59	0.00	β Libræ	15 8 56.49	0.00
γ¹ Eridani	3 51 1.97	+ 0.01	α Coronæ Borealis . . .	15 28 20.29	+ 0.01
α Tauri	4 27 19.15	+ 0.01	α Serpentis	15 36 52.97	+ 0.01
α Aurigæ	5 5 36.92	+ 0.01	β¹ Scorpii	15 56 43.35	0.00
β Orionis	5 7 19.90	+ 0.01	δ Ophiuchi	16 6 29.35	0.00
β Tauri	5 16 48.82	+ 0.01	α Scorpii	16 20 13.09	0.00
δ Orionis	5 24 20.72	+ 0.01	α Trianguli Australis . .	16 32 50.06	0.00
α Leporis	5 26 6.98	+ 0.01	α Herculis	17 7 48.55	0.00
ε Orionis	5 28 36.25	0.00	β Draconis	17 27 2.68	0.00
α Columbæ	5 34 13.13	+ 0.01	α Ophiuchi	17 27 58.38	+ 0.01
α Orionis	5 47 3.16	+ 0.01	σ Octantis	17 30 2.90	. .
μ Geminorum	6 13 53.15	+ 0.01	γ Draconis	17 53 7.43	0.00
α Argus	6 20 37.55	0.00	μ¹ Sagittarii	18 4 47.61	0.00
α Canis Majoris . . .	6 38 32.44	− 0.03	α Lyræ	18 31 51.59	+ 0.02
ε Canis Majoris . . .	6 52 43.92	0.00	β Lyræ	18 44 32.53	0.00
δ Geminorum	7 11 9.69	+ 0.01	ζ Aquilæ	18 58 30.92	0.00
α² Geminorum	7 25 1.33	− 0.01	δ Aquilæ	19 17 56.09	+ 0.02
α Canis Minoris . . .	7 31 26.84	− 0.05	γ Aquilæ	19 39 7.68	+ 0.01
β Geminorum	7 36 7.82	− 0.05	α Aquilæ	19 43 27.80	+ 0.03
15 Argus	8 1 9.43	0.00	β Aquilæ	19 47 56.69	+ 0.01
ε Hydræ	8 38 49.80	− 0.01	α² Capricorni	20 9 43.72	0.00
ι Ursæ Majoris	8 48 54.66	− 0.07	α Pavonis	20 13 44.65	+ 0.01
ι Argus	9 13 4.56	− 0.01	α Cygni	20 36 19.07	0.00
α Hydræ	9 20 12.98	0.00	61¹ Cygni	21 0 10.46	+ 0.36
ε Leonis	9 37 19.71	0.00	ζ Cygni	21 6 33.25	0.00
α Leonis	10 0 22.75	− 0.01	β Aquarii	21 23 39.53	0.00
η Argus	10 39 15.09	0.00	ε Pegasi	21 36 49.11	+ 0.01
δ Leonis	11 6 7.49	+ 0.02	α Aquarii	21 58 4.68	0.00
δ Crateris	11 11 50.68	0.00	α Gruis	21 58 45.30	+ 0.01
β Leonis	11 41 24.27	− 0.03	ζ Pegasi	22 33 58.90	+ 0.01
β Chamæleontis . . .	12 9 39.57	− 0.04	α Piscis Australis . . .	22 49 21.08	+ 0.03
α¹ Crucis	12 18 17.81	− 0.02	α Pegasi	22 57 17.54	+ 0.01
β Corvi	12 26 31.01	0.00	ι Piscium	23 32 14.24	+ 0.06

VIII.—*Annual Precession, Aberration, and Nutation.*

The stars contained in the general catalogue have been reduced from their observed places to their mean places on January 1, 1850, in the following manner: In the case of stars contained in the English Nautical Almanac, the reduction from the date of observation to the beginning of the fictitious year has been taken directly from the almanac; in the case of stars not contained in the almanac, but contained in the British Association Catalogue, the reduction from the date of observation to the beginning of the fictitious year has been effected by means of the constants given in the last-named work; in both these cases the final reduction from the beginning of the fictitious year to the epoch of the catalogue, January 1, 1850, has been performed by applying the annual precession, and, if necessary, proper motion, for the number of years included between the two dates. In the case of stars not contained either in the almanac or in the British Association Catalogue, the reduction from the date of observation to January 1, 1850, has been effected at once by means of the constants f, g, G, h, H, and i, of Bessel's well-known formulæ, the values of which were taken from Table I of Appendix C to the Washington Observations for 1847. This table was computed with Struve's constant of aberration

$$a = 20''.4451$$

Struve's and Peters's constants for precession

$$m = 3^{s}.07177 + 0^{s}.000019\ (y - 1850)$$
$$n = 20''.0564 - 0''.000086\ (y - 1850)$$

and Peters's coefficients for the terms of nutation, of which the principal is

$$N = 9''.2236 + 0''.000009\ (y - 1850)$$

The values of the annual precession in right ascension and declination, given for each star in the general catalogue, have been computed by the aid of Table X of Appendix C to the Washington Observations for 1847.

IX.—*Proper Motion.*

In reducing stars from their observed places to the epoch of the catalogue, the proper motions given in the British Association Catalogue, *and no others*, have been used.

The proper motions given in the general catalogue have, in almost all cases, been obtained by comparing the positions of the stars determined by the expedition with those given in Lacaille's Catalogue. The epochs of the two catalogues differ by exactly one hundred years, but some of the resulting proper motions are so great, that it seems almost certain there must either be large errors in the ancient observations, or else some confusion as to the identity of the stars. In a few instances where the proper motion has been well determined, by comparatively modern observations, it has been taken from the British Association Catalogue.

The observations of the expedition were begun on February 9, 1850, and finished on September 8, 1852. Their mean date is therefore May 24, 1851, that is 1851.395, which may be employed with sufficient accuracy in almost all questions relating to proper motion. If in any case extreme accuracy is demanded, the original records of the expedition can always be referred to as they are deposited at the United States Naval Observatory.

X.—*Refraction.*

In the reduction of the observations on which the general catalogue is founded, Bessel's refractions, as tabulated by Professor J. H. C. Coffin, United States Navy, in the Appendix to the Washington Observations for 1845, have been employed. Owing to the great elevation of the observatory at Santiago above the sea level, a special table of barometrical corrections had to be computed for it.

XI.—*Star Magnitudes.*

In order that the estimations of brightness by the several observers might be comparable, Captain Gilliss and Lieutenant MacRae selected as standards, well-known stars from the British Association Catalogue, ascending and descending in the scale of brightness to the extreme magnitudes embraced in it. The judgment of Mr. Phelps was based on the estimates of Lieutenant MacRae. The smallest star visible in the telescope of the transit circle, when illuminated for ordinary work, and the night favorable, was set down as the 12th magnitude.

XII.—*The General Catalogue.*

The first column contains the number of each star in the catalogue.

The second column contains the names of the stars, preference having been given to their designation in the following order:

1. The Greek or Italic letter of Bayer, with the name of the constellation to which it belongs as given in Baily's Flamsteed.
2. Flamsteed's number, with the name of the constellation.
3. The number in the Catalogue of the British Association.
4. The number in Lacaille's Catalogue of 9,766 stars, (L.,) reduced at the expense of the British Association.
5. The number in Brisbane's Catalogue.
6. The number in the Histoire Céleste (H. C.) of Lalande, as published by the British Association.
7. The number of the Zone of Bessel, (B. Z.,) as given in the volumes of the Königsberg Observations.
8. The number in the Zones observed at the Washington Observatory in 1846.

When there is any doubt as to the identity of a star, its name is followed by an interrogation mark; and such stars as could not be found in any of the above-named catalogues, are designated as anonymous.

The third column contains the magnitudes of the stars. Those not estimated by the observers are marked with an asterisk, and have been taken from one of the following named catalogues, viz: The Greenwich Twelve-Year, the British Association, Rumker's, or Lacaille's; preference being given in the order in which the names are mentioned.

The fourth and eighth columns contain, respectively, the mean right ascensions and declinations of the stars for January 1, 1850.

The fifth, sixth, ninth, and tenth columns contain, respectively, the annual precession and annual proper motion of the stars in right ascension and in declination.

The seventh and last columns give, respectively, the number of observations in right ascension and in declination, on which the position of each star depends.

XIII.—*Catalogue of Double Stars.*

This catalogue was formed by plotting on a large scale the differences of right ascension, and of declination, of the components of double stars observed with the transit circle, and then measuring from the drawings the distances and angles of position. No direct observations of distances or angles of position were ever made on the stars themselves.

The headings of the different columns are sufficiently intelligible without any explanation. The angles of position are counted from the north in the direction: north, following, south, preceding. In the column of synonyms the following abbreviations have been used:

H. Herschel's Catalogue of Double Stars observed at the Cape of Good Hope, in the years 1834–'38.
B. A. C. British Association Catalogue.
B. Brisbane's Catalogue.
L. Lacaille's Catalogue, as reduced and published by the British Association.
A. Astronomical Society's Catalogue for 1830.
D. Dunlop's Catalogue of 253 Southern Double Stars.
R. Rumker's List of 28 Double Stars in his Preliminary Catalogue.
S. Struve's First Catalogue of 795 Double Stars, published in Volume III of the Dorpat Observations.

In the case of triple stars, the letters A, B, C have been used to designate the components in the order of their brightness, A being the brightest.

XIV.—*Persons who made the Reductions.*

Captain Gilliss planned the reductions, and they were mostly executed under his supervision. He seldom had more than one or two assistants employed on the work at the same time; and, as it extended over a number of years, it has proved somewhat difficult to ascertain the names of all of them. However, the following list is believed to be complete, viz: Messrs. John R. Gilliss, F. G. Hesse, H. Diebitch, Wm. Harkness, F. A. P. Barnard, E. B. Merriman, and John Weissner. The distances and angles of position given in the catalogue of double stars were computed graphically by Mr. Merriman.

WM. HARKNESS,
Professor of Mathematics, U. S. Navy.

U. S. NAVAL OBSERVATORY,
Washington, October 10, 1870.

THE GENERAL CATALOGUE.

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
49	Anonymous	8	1 39 42.96	+ 2.515	. .	1	− 44 39 58.7	+18.19	. .	1
50	548 B. A. C.	6	1 40 13.27	+ 2.358	. .	3	− 51 34 3.6	+18.17	. .	3
51	518 Lacaille	7.5	1 40 22.59	+ 2.523	0.000	1	− 44 4 16.5	+18.16	+ 0.29	1
52	Anonymous	5	1 43 4.04	− 4.289	. .	1	− 85 31 28.4	+18.06	. .	1
53	Anonymous	.	1 46 7.28	+ 3.181	. .	1	+ 10 20 10.8	+17.94	. .	1
54	584 B. A. C.?	7	1 46 40.89	− 4.601	− 0.587	1	− 85 31 40.5	+17.92	− 7.79	1
55	585 B. A. C.	6	1 48 8.57	+ 2.501	. .	1	− 43 14 2.8	+17.86	. .	1
56	572 Lacaille	6.5	1 48 59.02	+ 2.067	− 0.038	1	− 58 39 41.2	+17.83	− 0.09	1
57	569 Lacaille	7.5	1 49 25.50	+ 2.609	+ 0.017	1	− 36 58 53.4	+17.81	− 0.23	1
58	α Hydri	3	1 54 2.51	+ 1.856	. .	9	− 62 18 4.8	+17.62	. .	8
59	α Piscium	3.5*	1 54 17.40	+ 3.094	. .	2	+ 2 2 11.3	+17.61	. .	2
60	642 B. A. C.	6.5	1 57 32.49	+ 2.177	+ 0.276	2	− 53 45 34.0	+17.48	+ 5.54	2
61	α ARIETIS	2*	1 58 43.62	+ 3.349	. .	37	+ 22 45 1.4	+17.42	. .	32
62	657 Lacaille	7	2 3 40.53	+ 2.305	+ 0.040	1	− 48 9 33.9	+17.21	+ 0.68	1
63	ξ¹ Ceti	4.5*	2 5 3.27	+ 3.171	. .	3	+ 8 8 22.5	+17.14	. .	3
64	μ Fornacis	7	2 6 18.28	+ 2.644	. .	1	− 31 25 46.2	+17.09	. .	1
65	697 Lacaille	6.5	2 10 50.07	+ 2.093	− 0.341	1	− 53 35 9.4	+16.88	− 5.74	1
66	737 Lacaille	7.5	2 17 51.56	+ 1.738	− 0.096	1	− 60 26 33.7	+16.54	+ 0.67	1
67	ξ² Ceti	4*	2 20 11.26	+ 3.177	. .	1	+ 7 47 . .	+16.42		
68	779 B. A. C.	6*	2 24 35.33	+ 1.383	− 0.030	4	− 64 58 14.9	+16.20	− 0.13	4
69	782 Lacaille	6.5	2 25 48.23	+ 1.777	− 0.036	1	− 58 28 38.8	+16.13	+ 0.01	1
70	ν Ceti	5*	2 28 0.42	+ 3.141	. .	1	+ 4 56 6.3	+16.02	. .	1
71	829 Lacaille	8	2 34 16.53	+ 1.860	− 0.260	1	− 55 29 18.6	+15.68	− 4.96	1
72		7.5	17.34			1	2.2			1
73	μ Hydri	6*	2 34 58.51	− 1.558	+ 0.014	1	− 79 45 44.5	+15.64	0.00	1
74	γ CETI	3.5*	2 35 31.96	+ 3.110	. .	44	+ 2 36 1.5	+15.61	. .	43
75	845 B. A. C.	4*	2 36 50.32	+ 3.213	. .	5	+ 9 28 38.5	+15.54	. .	3
76	865 B. A. C.	6.5	2 39 53.97	+ 2.154	+ 0.023	1	− 46 55 17.5	+15.37	− 0.02	1
77	π Arietis	5.5*	2 40 55.63	+ 3.333	. .	2	+ 16 50 12.5	+15.31	. .	2
78	ζ Hydri	5*	2 43 15.20	+ 0.882	. .	4	− 68 14 51.9	+15.18	. .	4
79	Anonymous	8	2 49 5.91	+ 1.175	. .	1	− 64 38 9.5	+14.84	. .	1
80	Anonymous	6	2 51 49.89 50.06	+ 1.152	. .	2	− 64 36 70.7 49.1	+14.68	. .	2
81	α CETI	2.5*	2 54 26.58	+ 3.128	. .	52	+ 3 29 52.3	+14.52	. .	48
82	Anonymous	7.5	2 59 8.70	+ 1.867	. .	2	− 51 59 58.3	+14.23	. .	2
83	θ Hydri	5*	3 1 59.13	+ 0.049	. .	6	− 72 29 18.9	+14.06	. .	6
84	δ Arietis	4.5*	3 3 3.58	+ 3.404	. .	2	+ 19 9 20.5	+13.99	. .	2
85	Anonymous	6.7	3 6 40.30	+ 2.227	. .	2	− 40 58 35.8	+13.76	. .	2
86	1061 Lacaille	7	3 13 4.73	+ 1.890	− 0.023	1	− 49 50 10.7	+13.35	− 0.24	1
87	Anonymous	7	3 16 28.12	+ 1.972	. .	1	− 68 42 21.0	+13.13	. .	1
88	ο Tauri	3.5*	3 16 44.66	+ 3.223	. .	1	+ 8 30 . .	+13.11		
89	ξ Tauri	3.5*	3 19 2.71	+ 3.237	. .	3	+ 9 12 19.9	+12.96	. .	3
90	f Tauri	4*	3 22 35.75	+ 3.299	. .	1	+ 12 25 . .	+12.72		
91	Anonymous	8	3 25 34.64	+ 1.563	. .	1	− 55 17 56.7	+12.51	. .	1
92	1136 Lacaille	7.5	3 26 27.22	+ 1.559	0.000	1	− 55 19 19.3	+12.45	− 0.39	1
93	1263 Lacaille	8.5	3 33 . .	− 5.386	. .	.	− 82 46 54.2	+12.00	+ 0.86	1
94	1180 Lacaille	7.5	3 33 46.33	+ 1.799	− 0.027	1	− 49 51 34.0	+11.95	+ 0.12	1
95	17 Tauri	4*	3 35 58.55	+ 3.545	. .	2	+ 23 38 13.9	+11.79	. .	2
96	η TAURI	3*	3 38 34.55	+ 3.549	. .	31	+ 23 38 12.7	+11.61	. .	30

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
97	Anonymous . .	.	3 39 9.47	+ 3.570	. .	1	+ 24 30 14.4	+11.56	. .	1
98	ε Tauri . . .	5*	3 40 2.98	+ 3.278	. .	2	+ 10 40 40.1	+11.50	. .	1
99	27 Tauri . . .	4*	3 40 14.96	+ 3.550	. .	3	+ 23 35 24.5	+11.49	. .	3
100	1185 B. A. C. . .	6.5	3 40 44.95	+ 1.519	− 0.010	1	− 54 44 52.7	+11.45	+ 0.08	1
101	1334 Lacaille? . .	8.5	3 50 57.54	− 1.893	+ 0.152	1	− 77 10 18.9	+10.70	+ 3.06	1
102	γ^1 ERIDANI . .	3*	3 51 1.98	+ 2.791	. .	32	− 13 56 20.4	+10.70	. .	33
103	λ Tauri . . .	3.5*	3 52 22.56	+ 3.314	. .	1	+ 12 3 43.2	+10.60	. .	1
104	ζ Reticuli . .	5*	3 58 44.34	+ 0.847	. .	3	− 62 34 44.2	+10.12	. .	2
105	1267 B. A. C.? . .	7.5	3 58 57.58	+ 1.922	+ 0.529	1	− 44 53 26.7	+10.10	− 0.25	1
106	1319 B. A. C. . .	7.5	4 9 38.76	− 3.045	− 0.043	2	− 79 1 52.4	+ 9.29	− 0.40	2
107	γ Tauri . .	4*	4 11 15.75	+ 3.396	. .	5	+ 15 15 37.3	+ 9.16	. .	2
108	α Reticuli . .	3.5*	4 12 30.36	+ 0.746	. .	4	− 62 51 1.6	+ 9.07	. .	4
109	δ^1 Tauri . . .	4*	4 14 17.38	+ 3.442	. .	2	+ 17 11 9.6	+ 8.93	. .	1
110	δ^2 Tauri . . .	6*	4 15 27.17	+ 3.441	. .	3	+ 17 5 30.7	+ 8.83	. .	2
111	π Tauri . . .	5*	4 18 8.04	+ 3.381	. .	3	+ 14 22 9.1	+ 8.62	. .	3
112	Anonymous .	8.5	4 18 26.26	+ 0.318	. .	1	− 66 19 29.7	+ 8.60	. .	1
113	ε Tauri . . .	3.5*	4 19 51.72	+ 3.485	. .	3	+ 18 50 35.5	+ 8.49	. .	2
114	α TAURI . . .	1*	4 27 19.10	+ 3.429	. .	44	+ 16 12 9.2	+ 7.89	. .	39
115	α Doradus . .	3*	4 30 45.74	+ 1.282	. .	1	− 55 21 27.5	+ 7.61	. .	1
116	1466 B. A. C. . .	6*	4 37 10.57	+ 0.652	+ 0.017	1	− 62 42 21.3	+ 7.09	− 0.91?	1
117	o^1 Orionis . . .	5.5*	4 44 3.02	+ 3.387	. .	2	+ 13 59 43.4	+ 6.53	. .	2
118	1513 B. A. C. . .	6*	4 46 23.19	+ 2.200	+ 0.005	3	− 34 29 37.8	+ 6.33	− 0.03	3
119	1556 B. A. C. . .	7	4 55 38.00	− 1.040	− 0.008	4	− 72 39 17.8	+ 5.56	+ 0.56	4
120	11 Orionis . .	5*	4 56 0.11	+ 3.421	. .	3	+ 15 11 25.0	+ 5.53	. .	3
121	Anonymous .	7	4 57 35.14	− 8.705	. .	1	− 83 45 38.0	+ 5.39	. .	1
122	15 Orionis . . .	5.5*	5 1 7.08	+ 3.428	. .	2	+ 15 24 2.4	+ 5.10	. .	2
123	1727 Lacaille . .	7.5	5 1 26.64	+ 1.779	− 0.023	1	− 44 58 55.4	+ 5.07	− 0.43	1
124	α AURIGÆ . .	1*	5 5 36.89	+ 4.410	. .	27	+ 45 50 19.4	+ 4.71	. .	25
125	β ORIONIS . .	1*	5 7 19.86	+ 2.880	. .	14	− 8 22 46.4	+ 4.57	. .	14
126	1801 Lacaille . .	8	5 11 13.06	+ 0.831	− 0.023	1	− 59 45 33.8	+ 4.24	+ 0.25	1
127	1803 Lacaille . .	8	5 13 12.70	+ 1.818	− 0.015	1	− 43 46 11.3	+ 4.07	+ 0.45	1
128	1805 Lacaille . .	7	5 13 38.00	+ 1.926	− 0.095	1	− 41 12 12.7	+ 4.03	+ 2.75	1
129	1822 Lacaille . .	7	5 15 23.28	+ 1.409	+ 0.025	1	− 51 44 11.6	+ 3.88	+ 0.20	1
130	β TAURI . . .	2*	5 16 48.82	+ 3.784	. .	44	+ 28 28 29.1	+ 3.76	. .	34
131	1861 Lacaille . .	8	5 18 20.33	− 0.309	− 0.037	1	− 68 44 47.0	+ 3.63	+ 0.43	1
132	1694 B. A. C. . .	6.5	5 18 29.07	+ 2.064	− 0.001	1	− 37 28 42.7	+ 3.61	+ 0.22	1
133	υ Tauri . . .	6*	5 18 37.81	+ 3.598	. .	2	+ 21 48 10.4	+ 3.60	. .	2
134	Anonymous .	9	5 18 44.75	− 0.287	. .	1	− 68 37 1.8	+ 3.59	. .	1
135	Anonymous .	10	5 19 47.86	− 0.337	. .	2	− 68 53 10.1	+ 3.50	. .	2
136	Anonymous .	10	5 19 55.35	− 0.342	. .	2	− 68 54 35.3	+ 3.49	. .	2
137	Anonymous .	11	5 19 55.53	− 0.310	. .	1	− 68 43 43.0	+ 3.49	. .	1
138	1859 Lacaille . .	8	5 20 56.28	+ 1.287	+ 0.012	1	− 53 33 49.8	+ 3.40	− 0.14	1
139	1854 Lacaille . .	8	5 21 15.79	+ 1.647	+ 0.010	1	− 47 13 40.2	+ 3.37	+ 0.06	1
140	Anonymous .	8	5 21 50.46	+ 1.826	. .	1	− 43 20 22.8	+ 3.32	. .	1
141	1876 Lacaille . .	8	5 22 28.71	+ 1.282	+ 0.027	1	− 53 36 48.8	+ 3.27	− 0.32	1
142	1877 Lacaille . .	8	5 22 38.70	+ 1.275	+ 0.020	2	− 53 42 53.9	+ 3.25	− 0.33	2
143	1882 Lacaille . .	7*	5 23 48.13	+ 0.902	− 0.014	1	− 58 41 20.4	+ 3.15	− 0.18	1
144	δ ORIONIS . .	2*	5 24 20.71	+ 3.062	. .	3	− 0 24 55.1	+ 3.11	. .	3

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
145	1887 Lacaille	8	5 25 13.50	+ 1.253	+ 0.012	1	− 54 0 22.2	+ 3.03	− 0.25	1
146	α Leporis	3*	5 26 6.98	+ 2.644	. .	9	− 17 56 1.6	+ 2.95	. .	8
147	1894 Lacaille	7	5 26 30.87	+ 1.292	− 0.011	1	− 53 22 50.3	+ 2.92	− 0.39	1
148	1753 B. A. C.	6	5 27 45.68	+ 2.137	− 0.006	1	− 35 14 43.2	+ 2.81	− 0.11	1
149	1895 Lacaille	5.5	5 27 48.55	+ 2.015	+ 0.008	1	− 38 37 16.5	+ 2.81	+ 0.05	1
150	1907 Lacaille	7.5	5 28 13.23	+ 1.012	− 0.038	1	− 57 16 13.9	+ 2.77	+ 0.48	1
151	ε Orionis	2*	5 28 36.24	+ 3.042	. .	9	− 1 18 11.0	+ 2.74	. .	3
152	ζ Tauri	3.5*	5 28 40.93	+ 3.581	. .	3	+ 21 2 43.5	+ 2.73	. .	3
153	1947 Lacaille	7	5 32 52.83	+ 0.866	+ 0.018	1	− 58 58 0.0	+ 2.37	− 0.01	1
154	1944 Lacaille	6.5	5 33 58.12	+ 1.688	− 0.045	1	− 46 10 26.6	+ 2.27	− 0.40	1
155	Anonymous	9	5 33 58.52	+ 1.688	. .	1	− 46 10 23.8	+ 2.27	. .	1
156	α Columbæ	2*	5 34 13.15	+ 2.170	. .	59	− 34 9 25.5	+ 2.25	. .	55
157	1803 B. A. C.	6	5 34 17.14	+ 2.218	. .	1	− 32 42 40.9	+ 2.25	. .	1
158	Anonymous	8.5	5 34 17.63	+ 2.085	. .	1	− 36 37 5.5	+ 2.24	. .	1
159	1961 Lacaille?	7.5	5 34 48.26	+ 1.198	+ 0.088	2	− 54 39 15.9	+ 2.20	+ 4.01?	2
160	Anonymous	8	5 34 52.51	+ 1.181	. .	1	− 54 54 12.5	+ 2.19	. .	1
161	1952 Lacaille	7.5	5 35 32.04	+ 2.083	− 0.003	1	− 36 38 55.8	+ 2.14	+ 0.36	1
162	1975 Lacaille	7	5 36 58.21	+ 0.851	+ 0.029	1	− 59 2 25.2	+ 2.01	− 0.12	1
163	1969 Lacaille	8	5 37 18.22	+ 1.741	− 0.082	1	− 45 0 4.8	+ 1.98	+ 1.32	1
164	1967 Lacaille	7	5 37 27.47	+ 2.173	− 0.011	1	− 34 1 43.0	+ 1.97	− 0.08	1
165	1976 Lacaille	7	5 38 31.69	+ 1.727	− 0.011	1	− 45 18 21.9	+ 1.88	− 0.28	1
166	1984 Lacaille	7	5 40 14.71	+ 1.945	+ 0.003	1	− 40 15 41.3	+ 1.73	− 0.41	1
167	1988 Lacaille	6.5	5 40 22.69	+ 1.879	+ 0.005	1	− 41 50 46.3	+ 1.71	+ 0.29	1
168	2004 Lacaille	7.3	5 41 26.60	+ 1.114	− 0.015	3	− 55 45 36.2	+ 1.62	− 0.10	3
169	1993 Lacaille	6.5	5 42 1.52	+ 2.113	− 0.011	2	− 35 43 55.7	+ 1.57	+ 0.06	2
170	2037 Lacaille	7.5	5 42 9.23	− 0.371	− 0.046	1	− 68 50 12.3	+ 1.56	+ 0.64	2
171	1994 Lacaille	8	5 42 14.24	+ 2.084	− 0.001	1	− 36 32 28.0	+ 1.55	− 0.22	1
172	2012 Lacaille	8	5 42 28.59	+ 1.112	− 0.024	3	− 55 46 58.2	+ 1.53	− 0.44	3
173	1999 Lacaille?	8	5 42 38.53	+ 1.747	+ 0.224	1	− 44 50 15.9	+ 1.52	− 5.80	1
174	2006 Lacaille	7	5 42 41.03	+ 1.705	+ 0.013	1	− 45 42 30.5	+ 1.51	− 0.02	1
175	2014 Lacaille	7.5	5 42 42.17	+ 1.123	− 0.010	3	− 55 38 11.6	+ 1.51	− 0.41	3
176	2037 Lacaille	8	5 42 55.18	− 0.362	+ 0.375?	1	− 68 47 . .	+ 1.49		
177	2001 Lacaille	7.5	5 43 1.05	+ 2.139	+ 0.001	1	− 34 59 15.9	+ 1.49	− 0.37	1
178	2025 Lacaille	8.5	5 43 38.59	+ 1.096	− 0.058	1	− 55 59 28.5	+ 1.43	+ 0.15	1
179	2020 Lacaille	8.5	5 44 9.59	+ 1.855	− 0.030	1	− 42 22 22.4	+ 1.38	− 0.23	1
180	Anonymous	9	5 44 15.82	+ 1.857	. .	1	− 42 19 51.0	+ 1.38	. .	1
181	2031 Lacaille?	7	5 44 59.77	+ 1.750	− 0.087	1	− 44 43 46.8	+ 1.31	− 1.15	1
182	2035 Lacaille	7.5	5 45 19.63	+ 1.810	− 0.049	1	− 43 24 37.6	+ 1.26	+ 0.59	1
183	2036 Lacaille	8	5 45 53.53	+ 1.961	+ 0.004	1	− 39 46 28.3	+ 1.23	+ 0.42	1
184	α Orionis	1*	5 47 3.12	+ 3.244	. .	55	+ 7 22 25.9	+ 1.13	. .	55
185	2063 Lacaille	8	5 48 20.38	+ 1.255	− 0.007	1	− 53 41 29.7	+ 1.02	− 0.82	1
186	2054 Lacaille	8	5 48 46.39	+ 2.045	+ 0.023	1	− 37 33 46.6	+ 0.98	− 0.35	1
187	2061 Lacaille	8	5 49 12.77	+ 1.858	− 0.024	1	− 42 15 54.8	+ 0.94	− 0.20	1
188	Anonymous	9.5	5 49 22.99	− 0.556	. .	2	− 69 47 27.5	+ 0.93	. .	2
189	2072 Lacaille	8	5 50 39.43	+ 2.023	− 0.009	1	− 38 7 47.7	+ 0.82	+ 0.48	1
190	Anonymous	9	5 50 52.42	− 0.564	. .	2	− 69 49 27.8	+ 0.80	. .	2
191	Anonymous	9	5 51 19.93	− 0.543	. .	2	− 69 43 6.5	+ 0.76	. .	2
192	2086 Lacaille	7	5 52 24.85	+ 1.879	− 0.015	1	− 41 46 32.5	+ 0.66	+ 0.15	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
193	2088 Lacaille	7	5 52 27.21	+ 1.780	0.000	1	− 44 1 52.3	+ 0.66	+ 0.09	1
194	2116 Lacaille	7.5	5 52 27.35	− 0.585	− 0.029	1	− 69 55 49.4	+ 0.66	− 0.27	1
195	2085 Lacaille	7.5	5 52 29.33	− 2.153	− 0.007	1	− 34 29 35.1	+ 0.66	− 0.28	1
196	Anonymous	9.5	5 53 12.39	− 0.566	. .	1	− 69 49 47.4	+ 0.59	. .	1
197	1929 B. A. C.	6.5	5 54 10.80	+ 1.779	− 0.004	2	− 44 2 53.8	+ 0.51	− 0.04	1
198	1933 B. A. C.	6	5 54 33.45	+ 1.834	. .	1	− 42 49 36.7	+ 0.48	. .	1
199	Anonymous	8.5	5 54 44.06	+ 2.062	. .	1	− 37 4 26.2	+ 0.46	. .	1
200	Anonymous	8	5 55 16.85	+ 2.064	. .	1	− 37 2 16.8	+ 0.41	. .	1
201	2112 Lacaille?	7*	5 55 42.30	+ 1.769	− 0.161	1	− 44 16 58.1	+ 0.38	+ 8.01	1
202	2109 Lacaille	6.5	5 55 54.18	+ 2.062	− 0.021	1	− 37 4 37.2	+ 0.36	− 0.92	1
203	2117 Lacaille?	6.7	3 56 16.57	+ 1.831	− 0.280	2	− 42 52 36.1	+ 0.33	+ 6.30	2
204	2118 Lacaille	7	5 57 6.82	+ 1.990	+ 0.010	1	− 38 59 34.6	+ 0.25	+ 0.13	1
205	2120 Lacaille	7.5	5 57 56.35	+ 2.045	+ 0.012	1	− 37 32 44.7	+ 0.18	− 0.12	1
206	2121 Lacaille	7	5 57 58.32	+ 2.070	0.000	1	− 36 52 14.7	+ 0.18	− 0.22	1
207	2157 Lacaille	8	5 58 27.66	− 0.001	− 0.011	1	− 69 29 18.4	+ 0.13	− 0.05	1
208	2124 Lacaille	6	5 58 45.71	+ 2.231	+ 0.005	1	− 32 10 23.7	+ 0.11	− 0.05	1
209	ν Orionis	4.5*	5 59 0.12	+ 3.424	. .	3	+ 14 46 49.0	+ 0.09	. .	3
210	2139 Lacaille	7	5 59 8.96	+ 1.015	+ 0.002	1	− 56 59 5.0	+ 0.07	+ 0.40	1
211	Anonymous	8.5	5 59 17.54	+ 0.145	. .	1	− 65 26 59.3	+ 0.06	. .	1
212	2140 Lacaille	7.5	5 59 39.27	+ 1.260	− 0.001	1	− 53 34 42.4	+ 0.03	− 0.11	1
213	2129 Lacaille	7.5	6 0 0.60	+ 2.187	− 0.012	1	− 33 29 31.2	0.00	+ 0.21	1
214	2132 Lacaille	6	6 0 9.27	+ 2.118	− 0.015	1	− 35 30 16.0	− 0.01	− 0.18	1
215	1964 B. A. C.	5.5*	6 0 9.66	+ 1.733	− 0.027	1	− 45 2 20.1	− 0.01	+ 0.13	1
216	Anonymous	6.5	6 0 9.77	+ 1.018	. .	1	− 56 56 20.9	− 0.01	. .	1
217	2136 Lacaille	7	6 0 11.20	+ 1.727	0.000	1	− 45 11 16.8	− 0.02	− 0.95	1
218	Anonymous	8.5	6 0 11.27	+ 2.117	. .	1	− 35 31 46.4	− 0.02	. .	1
219	2144 Lacaille	7.5	6 0 17.69	+ 1.240	− 0.015	1	− 53 53 0.7	− 0.03	− 0.75	1
220	1968 B. A. C.	6	6 0 21.23	+ 1.732	− 0.069	1	− 45 4 48.3	− 0.03	+ 0.86	1
221	1971 B. A. C.	6	6 0 37.58	+ 3.643	. .	1	+ 33 7 . .	− 0.05		
222	2152 Lacaille	9	6 1 15.02	+ 1.778	− 0.365	1	− 44 4 50.6	− 0.11	+ 0.83	1
223	Anonymous	7.7	6 1 22.46	+ 1.785	. .	2	− 43 55 22.2	− 0.12	. .	2
224	2148 Lacaille	7*	6 1 54.09	+ 1.902	− 0.004	1	− 41 12 17.1	− 0.17	+ 0.44	1
225	2151 Lacaille	8	6 2 17.10	+ 2.090	− 0.003	1	− 36 17 26.2	− 0.20	+ 0.05	1
226	θ Columbæ	6	6 2 23.22	+ 2.056	. .	3	− 37 14 7.3	− 0.21	. .	3
227	2169 Lacaille	7	6 2 25.90	+ 1.074	0.000	1	− 56 13 14.9	− 0.21	− 0.15	1
228	2158 Lacaille?	8.5	6 2 40.00	+ 1.888	− 0.026	1	− 41 32 53.4	− 0.23	+ 1.58	1
229	1984 B. A. C.	7.3	6 2 49.14	+ 1.679	+ 0.075	2	− 46 11 11.5	− 0.25	− 2.76	2
230	2165 Lacaille	7	6 2 54.73	+ 1.523	− 0.075	1	− 49 12 33.5	− 0.25	+ 1.14	1
231	Anonymous	8	6 3 18.64	+ 1.094	. .	1	− 55 57 12.6	− 0.29	. .	1
232	2162 Lacaille	7*	6 3 33.85	+ 2.097	− 0.008	1	− 36 6 8.5	− 0.31	+ 0.36	1
233	2172 Lacaille	7.5	6 4 16.71	+ 1.906	+ 0.009	1	− 41 5 36.2	− 0.37	+ 0.51	1
234	2176 Lacaille	7	6 4 18.06	+ 1.791	− 0.018	1	− 43 47 17.6	− 0.38	+ 0.08	1
235	2187 Lacaille	8.5	6 4 49.56	+ 1.114	− 0.012	1	− 55 40 55.8	− 0.42	− 0.09	1
236	2182 Lacaille	6	6 5 20.15	+ 1.938	+ 0.016	1	− 40 19 44.7	− 0.47	− 0.03	1
237	2288 Lacaille	7	6 5 38.03	+ 1.505	− 0.028	1	− 49 32 18.6	− 0.49	0.00	1
238	η Geminorum	3.5*	6 5 49.43	+ 3.627	. .	1	+ 22 32 40.5	− 0.51	. .	1
239	Anonymous	9	6 5 56.18	+ 1.505	. .	1	− 49 33 . .	− 0.52		
240	2192 Lacaille	8	6 5 58.06	+ 1.400	+ 0.004	1	− 51 21 47.0	− 0.52	+ 0.04	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
241	Anonymous	8	6 6 29.36	+ 1.400	. .	1	– 51 22 35.8	– 0.57	. .	1
242	2196 Lacaille?	7.5	6 6 42.53	+ 1.743	– 0.081	1	– 44 50 27.8	– 0.59	– 0.63	1
243	2197 Lacaille	7.5	6 6 54.34	+ 1.742	– 0.014	1	– 44 52 49.2	– 0.60	+ 0.29	1
244	δ Pictoris	5.5	6 7 22.91	+ 1.168	– 0.004	3	– 54 56 11.9	– 0.65	– 0.27	3
245	Anonymous	8.5	6 7 53.28	+ 1.087	. .	1	– 56 3 18.1	– 0.69	. .	1
246	2204 Lacaille	8.5	6 8 16.63	+ 1.437	– 0.098	1	– 50 45 19.4	– 0.72	– 1.45	1
247	Anonymous	7	6 10 14.09	+ 1.386	. .	1	– 51 37 22.4	– 0.89	. .	1
248	2032 B. A. C.	6.5	6 10 59.64	+ 0.620	– 0.032	1	– 61 25 53.8	– 0.96	+ 0.07	1
249	2221 Lacaille	8	6 12 15.06	+ 1.801	– 0.024	1	– 43 35 27.8	– 1.07	+ 0.08	1
250	2223 Lacaille	8.5	6 12 51.78	+ 1.928	– 0.031	1	– 40 36 12.1	– 1.13	+ 0.79	1
251	2249 Lacaille	6.5	6 13 43.93	– 0.017	+ 0.004	1	– 66 38 0.3	– 1.20	+ 0.11	1
252	Anonymous	9	6 13 47.34	– 0.027	. .	1	– 66 42 1.6	– 1.21	. .	1
253	μ Geminorum	3*	6 13 53.09	+ 3.627	. .	62	+ 22 35 6.5	– 1.21	. .	58
254	2231 Lacaille	7	6 14 19.04	+ 1.912	– 0.004	1	– 41 0 50.5	– 1.25	+ 0.21	1
255	2240 Lacaille	7.5	6 14 33.52	+ 1.240	– 0.007	1	– 53 55 18.5	– 1.27	– 0.13	1
256	2233 Lacaille	6.5	6 14 51.71	+ 1.976	– 0.005	1	– 39 25 24.7	– 1.30	– 0.04	1
257	2243 Lacaille	7	6 14 55.01	+ 1.269	– 0.031	1	– 53 30 3.1	– 1.30	– 0.34	1
258	Anonymous	10	6 15 12.46	+ 1.402	. .	1	– 51 22 57.3	– 1.33	. .	1
259	2235 Lacaille?	8.5	6 15 15.63	+ 1.400	+ 0.717	1	– 51 24 42.0	– 1.33	+ 0.76	1
260	Anonymous	8.5	6 15 16.31	+ 1.986	. .	1	– 39 9 38.0	– 1.33	. .	1
261	2246 Lacaille	8	6 15 22.71	+ 1.265	– 0.012	1	– 53 34 12.3	– 1.34	– 0.25	1
262	2257 Lacaille	6	6 16 36.28	+ 1.536	– 0.029	1	– 49 2 12.6	– 1.45	+ 0.14	1
263	2245 Lacaille	7.5	6 16 43.45	+ 2.139	– 0.005	1	– 34 58 19.6	– 1.46	– 0.16	1
264	2261 Lacaille	7	6 17 10.73	+ 1.366	– 0.018	1	– 52 0 4.0	– 1.50	+ 0.26	1
265	2256 Lacaille	8.5	6 17 14.58	+ 1.987	– 0.003	1	– 39 8 45.7	– 1.51	+ 0.56	1
266	2251 Lacaille	8	6 17 25.66	+ 2.188	– 0.003	1	– 33 32 27.2	– 1.52	+ 1.00	1
267	Anonymous	9	6 17 50.18	– 1.139	. .	1	– 72 26 11.9	– 1.56	. .	1
268	2259 Lacaille	6	6 17 51.63	+ 2.142	– 0.003	1	– 34 55 16.7	– 1.56	– 0.28	1
269	2264 Lacaille	7	6 18 8.60	+ 1.698	– 0.001	1	– 45 53 14.7	– 1.58	– 0.05	1
270	2280 Lacaille	7.5	6 18 59.73	+ 1.075	– 0.017	1	– 56 17 18.0	– 1.66	+ 0.19	1
271	2289 Lacaille	7	6 19 30.47	+ 0.769	+ 0.002	1	– 59 56 52.8	– 1.70	– 0.05	1
272	2277 Lacaille	6.5	6 19 49.80	+ 1.839	– 0.016	1	– 42 47 56.9	– 1.73	+ 0.54	1
273	2089 B. A. C.	6	6 19 54.42	+ 1.947	+ 0.034	1	– 40 12 10.5	– 1.74	+ 0.05	1
274	2274 Lacaille	7	6 20 8.03	+ 2.140	– 0.011	1	– 34 58 45.0	– 1,76	– 0.34	1
275	2093 B. A. C.	6	6 20 15.09	+ 1.076	– 0.020	1	– 56 17 25.1	– 1.77	– 0.01	1
276	Anonymous	8.5	6 20 16.17	+ 2.141	. .	1	– 34 57 45.8	– 1.77	. .	1
277	Anonymous	9	6 20 16.67	+ 2.141	. .	1	– 34 57 43.3	– 1.47	. .	1
278	α Argus	1*	6 20 37.47	+ 1.329	. .	81	– 52 36 56.4	– 1.80	. .	79
279	2301 Lacaille	6.7	6 20 39.08	+ 0.753	– 0.001	2	– 60 8 35.9	– 1.80	– 0.26	2
280	Anonymous	9	6 20 58.14	+ 1.920	. .	1	– 40 53 22.9	– 1.83	. .	1
281	2284 Lacaille	8	6 20 58.67	+ 1.920	– 0.010	1	– 40 53 28.2	– 1.83	– 0.01	1
282	2293 Lacaille	7.5	6 22 1.74	+ 2.040	+ 0.007	1	– 37 48 27.6	– 1.92	– 0.14	1
283	2108 B. A. C.	6	6 22 22.86	+ 0.749	– 0.014	2	– 60 11 54.1	– 1.96	+ 0.11	2
284	2302 Lacaille	7.5	6 23 0.83	+ 1.914	+ 0.025	2	– 41 2 35.1	– 2.01	– 0.68	2
285	2117 B. A. C.	6.5	6 23 54.42	+ 1.917	+ 0.001	1	– 40 58 46.0	– 2.09	+ 0.18	1
286	2122 B. A. C.	8	6 24 14.63	+ 1.946	– 0.044	1	– 40 16 34.8	– 2.12	+ 0.14	1
287	Anonymous	8	6 24 20.31	+ 1.946	. .	1	– 40 17 1.6	– 2.13	. .	1
288	2315 Lacaille?	8.5	6 24 35.64	+ 1.711	+ 0.040	1	– 45 40 50.4	– 2.15	– 1.23	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
289	2336 Lacaille . .	7	6 25 26.39	+ 0.711	− 0.015	1	− 60 37 57.3	− 2.22	+ 0.26	1
290	2317 Lacaille . .	8.5	6 25 30.00	+ 2.145	+ 0.001	1	− 34 53 56.0	− 2.23	− 0.14	1
291	2325 Lacaille . .	8	6 26 7.95	+ 1.908	− 0.017	1	− 41 14 10.9	− 2.28	+ 0.85	1
292	2138 B. A. C. . .	6.5	6 26 11.47	+ 1.925	− 0.012	1	− 40 48 45.0	− 2.29	+ 0.24	1
293	2339 Lacaille . .	8	6 26 15.98	+ 0.816	+ 0.035	1	− 59 31 7.0	− 2.29	− 0.22	1
294	2331 Lacaille . .	7	6 26 34.11	+ 1.807	− 0.026	1	− 43 36 46.7	− 2.32	− 0.03	1
295	2327 Lacaille . .	8	6 26 35.15	+ 2.069	+ 0.002	1	− 37 4 2.5	− 2.32	− 0.19	1
296	2146 B. A. C. . .	6	6 26 52.40	+ 1.046	+ 0.005	2	− 56 45 5.9	− 2.35	+ 0.02	2
297	2152 B. A. C. . .	7	6 27 53.02	+ 0.821	+ 0.041	1	− 59 29 9.2	− 2.43	− 0.07	1
298	2151 B. A. C. . .	7	6 27 59.14	+ 1.736	− 0.023	2	− 45 11 58.8	− 2.44	− 0.24	2
299	2345 Lacaille . .	7.7	6 28 8.90	+ 1.786	− 0.010	2	− 44 6 36.0	− 2.46	+ 0.10	2
300	2158 B. A. C. . .	6	6 28 33.90	+ 2.104	− 0.008	1	− 36 7 23.6	− 2.49	+ 0.04	1
301	2354 Lacaille . .	7	6 29 1.05	+ 1.577	+ 0.002	1	− 48 25 36.1	− 2.53	− 0.45	1
302	γ Geminorum .	2.5*	6 29 2.84	+ 3.465	. .	2	+ 16 31 19.7	− 2.53	. .	2
303	2361 Lacaille . .	7	6 29 9.16	+ 1.472	− 0.078	1	− 50 21 40.0	− 2.54	+ 1.13	1
304	2169 B. A. C. . .	7	6 30 2.78	+ 1.362	− 0.026	1	− 52 12 57.7	− 2.62	+ 0.15	1
305	2360 Lacaille . .	7.2	6 30 17.89	+ 2.105	− 0.012	2	− 36 8 16.1	− 2.64	+ 0.03	2
306	2362 Lacaille . .	8	6 30 20.56	+ 2.011	− 0.002	1	− 38 41 22.7	− 2.65	+ 0.11	1
307	Anonymous .	7.5	6 30 38.14	+ 2.150	. .	1	− 34 51 0.5	− 2.67	. .	1
308	2365 Lacaille . .	7	6 30 38.24	+ 2.111	− 0.023	1	− 35 57 51.0	− 2.67	+ 0.19	1
309	2367 Lacaille . .	8	6 30 56.76	+ 2.109	− 0.023	2	− 36 0 44.8	− 2.70	+ 0.19	2
310	Anonymous .	9	6 31 30.17	+ 1.583	. .	1	− 48 20 57.2	− 2.75	. .	1
311	2176 B. A. C. . .	5	6 31 40.52	+ 1.324	− 0.007	1	− 52 51 19.9	− 2.76	− 0.04	1
312	2177 B. A. C. . .	6	6 31 52.25	+ 1.484	− 0.031	1	− 50 10 30.2	− 2.78	+ 0.08	1
313	2375 Lacaille . .	6	6 31 56.59	+ 2.037	+ 0.001	1	− 38 1 25.0	− 2.79	+ 0.04	1
314	Anonymous .	8.5	6 32 0.46	+ 1.775	. .	1	− 44 24 59.0	− 2.79	. .	1
315	Anonymous .	8.5	6 32 3.49	+ 1.770	. .	1	− 44 31 36.2	− 2.80	. .	1
316	2379 Lacaille . .	7	6 32 5.78	+ 1.904	− 0.004	1	− 41 25 56.3	− 2.80	+ 0.21	1
317	2186 Lacaille . .	6.5	6 32 44.72	+ 1.484	− 0.022	1	− 50 12 13.5	− 2.85	− 0.06	1
318	2401 Lacaille . .	8	6 32 56.73	+ 0.648	− 0.032	1	− 61 22 32.1	− 2.87	− 0.01	1
319	2387 Lacaille . .	8.5	6 33 1.85	+ 1.756	− 0.039	1	− 44 50 54.6	− 2.88	− 0.24	1
320	ν Argus . . .	4	6 33 10.48	+ 1.835	. .	3	− 43 4 1.4	− 2.89	. .	3
321	2391 Lacaille? . .	7.5	6 33 15.57	+ 1.778	− 0.073	1	− 44 21 59.5	− 2.90	+ 1.53	1
322	2393 Lacaille . .	8.2	6 33 24.28	+ 1.476	− 0.021	2	− 50 21 16.1	− 2.91	− 0.27	2
323	2407 Lacaille . .	8	6 33 27.50	+ 0.681	− 0.013	1	− 61 3 0.0	− 2.92	+ 0.47	1
324	2396 Lacaille? . .	8	6 34 17.12	+ 1.809	− 0.089	1	− 43 41 33.0	− 2.99	+ 1.78	1
325	Anonymous .	8.5	6 34 20.21	+ 1.754	. .	1	− 44 55 57.0	− 2.99	. .	1
326	Anonymous .	10	6 34 21.17	+ 1.754	. .	1	− 44 55 41.9	− 2.99	. .	1
327	2196 B. A. C. . .	7	6 35 3.66	+ 1.331	− 0.010	3	− 52 47 59.8	− 3.06	+ 0.13	2
328	2416 Lacaille . .	8	6 35 4.56	+ 0.954	− 0.026	1	− 58 3 7.4	− 3.06	+ 0.46	1
329	2425 Lacaille . .	8	6 36 5.25	+ 0.942	− 0.028	1	− 58 12 17.6	− 3.15	+ 0.42	1
330	2422 Lacaille . .	7.3	6 36 16.67	+ 1.340	− 0.005	3	− 52 41 40.0	− 3.16	+ 0.18	3
331	2432 Lacaille . .	6	6 36 24.00	+ 0.651	− 0.037	1	− 61 24 6.7	− 3.17	+ 0.12	1
332	2433 Lacaille . .	7.5	6 36 41.90	+ 0.782	− 0.011	1	− 60 2 48.5	− 3.20	+ 0.16	1
333	Anonymous .	9	6 37 28.50	+ 1.900	. .	1	− 41 37 43.6	− 3.27	. .	1
334	2424 Lacaille . .	8	6 37 34.91	+ 1.902	− 0.059	1	− 41 35 1.8	− 3.27	+ 1.35	1
335	Anonymous .	8	6 37 41.80	+ 0.763	. .	1	− 60 15 49.8	− 3.28	. .	1
336	2424 Lacaille . .	7.5	6 37 50.14	+ 1.899	+ 0.093	1	− 41 39 43.5	− 3.30	− 1.46	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
337	2436 Lacaille . .	8	6 37 57.55	+ 1.350	− 0.009	1	− 52 33 10.0	− 3.31	+ 0.17	1
338	α CANIS MAJORIS	1*	6 38 32.36	+ 2.681	. .	81	− 16 30 51.2	− 3.36	. .	80
339	2458 Lacaille . .	8.5	6 40 32.33	+ 0.938	− 0.022	1	− 58 19 58.9	− 3.53	+ 0.48	1
340	2446 Lacaille . .	7.5	6 40 46.67	+ 2.182	− 0.018	2	− 34 5 8.5	− 3.55	− 0.04	2
341	2453 Lacaille . .	7.5	6 41 1.97	+ 1.658	− 0.011	1	− 47 3 58.7	− 3.57	+ 0.06	1
342	2465 Lacaille . .	7	6 41 58.27*	+ 1.387	+ 0.026	2	− 52 2 33.2	− 3.65	+ 0.75	2
343	2232 B. A. C. . .	6	6 42 27.83	+ 1.375	− 0.043	2	− 52 15 2.9	− 3.70	− 0.55	2
344	2478 Lacaille . .	6.5	6 43 16.36	+ 1.445	0.000	1	− 51 6 7.3	− 3.76	− 0.18	1
345	2477 Lacaille . .	7	6 43 24.42	+ 1.593	− 0.022	1	− 48 24 2.2	− 3.78	− 0.62	1
346	2467 Lacaille . .	7.5	6 43 25.36	+ 2.161	− 0.003	1	− 34 46 11.7	− 3.78	− 0.16	1
347	Anonymous .	8.5	6 44 18.41	+ 0.932	. .	1	− 58 29 28.8	− 3.85	. .	1
348	O Carinæ . . .	6	6 44 23.36	+ 1.171	− 0.015	1	− 55 22 33.9	− 3.86	− 0.39	1
349	2480 Lacaille . .	7	6 44 41.54	+ 2.197	− 0.013	1	− 33 42 55.0	− 3.88	+ 0.37	1
350	2483 Lacaille . .	7.5	6 44 45.86	+ 1.921	− 0.008	1	− 41 15 45.0	− 3.89	+ 0.41	1
351	2488 Lacaille . .	8	6 45 0.53	+ 1.689	+ 0.013	1	− 46 32 24.6	− 3.91	+ 0.46	1
352	2489 Lacaille . .	7.5	6 45 10.46	+ 1.743	− 0.023	1	− 45 23 45.5	− 3.93	− 0.41	1
353	2252 B. A. C. . .	5.5	6 45 25.24	+ 2.182	− 0.020	1	− 34 11 34.5	− 3.95	− 0.03	1
354	2491 Lacaille . .	6.5	6 45 35.50	+ 1.749	− 0.020	1	− 45 16 28.0	− 3.96	− 0.18	1
355	X Puppis . . .	5.5*	6 45 40.81	+ 1.693	− 0.023	1	− 46 27 25.9	− 3.97	+ 0.23	1
356	τ Argus . . .	3.2	6 46 13.02	+ 1.486	. .	3	− 50 26 17.3	− 4.02	. .	3
357	2514 Lacaille . .	8.5	6 46 13.66	+ 0.952	− 0.006	1	− 58 17 46.0	− 4.02	+ 0.61	1
358	2499 Lacaille . .	7.7	6 46 31.22	+ 2.048	− 0.066	2	− 38 2 16.8	− 4.04	+ 1.84	2
359	2500 Lacaille . .	7.5	6 46 32.63	+ 1.959	+ 0.010	2	− 40 22 23.6	− 4.05	− 0.21	2
360	2494 Lacaille . .	7	6 46 33.42	+ 2.198	− 0.025	1	− 33 44 22.8	− 4.05	+ 0.42	1
361	α Pictoris . .	3.7	6 46 38.93*	+ 0.632	. .	4	− 61 46 52.5	− 4.05	. .	4
362	2513 Lacaille . .	7.5	6 46 50.87	+ 1.359	− 0.007	1	− 52 37 29.3	− 4.07	− 0.02	1
363	2510 Lacaille . .	8	6 46 58.26	+ 1.661	− 0.009	1	− 47 9 1.7	− 4.08	− 0.09	1
364	2517 Lacaille . .	7	6 47 30.57	+ 1.613	− 0.002	1	− 48 6 47.9	− 4.13	− 0.35	1
365	Anonymous .	8	6 47 55.25	+ 1.935	. .	1	− 41 0 36.3	− 4.16	. .	1
366	2516 Lacaille . .	8	6 47 56.28	+ 1.955	0.000	1	− 40 30 38.9	− 4.16	− 0.34	1
367	2532 Lacaille . .	6	6 48 1.74	+ 0.800	− 0.018	1	− 60 4 35.3	− 4.17	+ 0.29	1
368	2522 Lacaille . .	6.2	6 48 14.58	+ 1.819	− 0.014	2	− 43 47 34.9	− 4.19	+ 0.01	2
369	Anonymous .	9	6 48 21.46	+ 1.654	. .	1	− 47 18 52.6	− 4.20	. .	1
370	Anonymous .	9.5	6 48 45.60	+ 2.190	. .	1	− 34 2 12.1	− 4.23	. .	1
371	2520 Lacaille . .	8.3	6 48 46.64	+ 2.190	− 0.030	2	− 34 2 12.2	− 4.24	+ 0.17	2
372	Anonymous .	9	6 49 24.73	+ 1.112	. .	2	− 56 19 52.5	− 4.29	. .	2
373	Anonymous .	8.2	6 49 26.74	+ 1.112	. .	2	− 56 19 25.6	− 4.29	. .	2
374	2531 Lacaille . .	7.7	6 50 1.80	+ 2.039	− 0.011	2	− 38 21 59.0	− 4.34	+ 0.07	2
375	2529 Lacaille ? . .	6	6 50 5.93	+ 2.205	− 0.115	1	− 33 36 59.7	− 4.35	− 2.40	1
376	2534 Lacaille . .	8	6 50 8.47	+ 1.821	− 0.007	1	− 43 48 22.1	− 4.35	− 0.53	1
377	2533 Lacaille . .	8	6 50 32.74	+ 2.035	+ 0.031	2	− 38 28 37.5	− 4.39	− 1.12	2
378	2540 Lacaille . .	7.8	6 51 12.62	+ 2.038	− 0.013	3	− 38 24 57.2	− 4.44	+ 0.42	3
379	ε CANIS MAJORIS	1.5*	6 52 43.93	+ 2.357	. .	75	− 28 46 17.9	− 4.57	. .	75
380	l Puppis . . .	6	6 52 55.79	+ 2.197	. .	1	− 33 54 42.4	− 4.59	. .	1
381	2567 Lacaille . .	9	6 53 5.91	+ 1.490	− 0.023	1	− 50 33 29.8	− 4.61	+ 0.004	1
382	2563 Lacaille . .	8	6 53 7.25	+ 1.884	− 0.033	1	− 42 24 22.7	− 4.61	− 0.038	1
383	2569 Lacaille . .	6.5	6 53 41.60	+ 1.731	+ 0.008	1	− 45 53 39.8	− 4.66	− 0.011	1
384	2585 Lacaille . .	8	6 53 47.02	+ 1.041	− 0.043	1	− 57 22 14.5	− 4.66	+ 0.023	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
385	2575 Lacaille . .	8	6 54 0.52	+ 1.580	− 0.030	1	− 48 56 42.0	− 4.68	− 0.031	1
386	2591 Lacaille? . .	8.5	6 54 17.70	+ 1.166	− 0.479	1	− 55 42 51.1	− 4.71	+ 1.65	1
387	2584 Lacaille . .	7.2	6 54 18.58	+ 1.383	− 0.018	3	− 52 25 50.2	− 4.71	− 0.29	3
388	2587 Lacaille . .	8	6 54 31.61	+ 1.184	− 0.007	1	− 55 27 57.1	− 4.73	− 0.08	1
389	2583 Lacaille . .	7.5	6 54 47.13	+ 1.688	− 0.012	1	− 46 49 5.8	− 4.75	+ 0.03	1
390	2582 Lacaille . .	7.5	6 54 49.28	+ 1.772	− 0.030	1	− 45 1 19.3	− 4.75	− 0.19	1
391	Anonymous .	10	6 54 53.43	+ 1.688	. .	1	− 46 48 59.3	− 4.76	. .	1
392	ζ Geminorum .	4*	6 55 12.54	+ 3.564	. .	2	+ 20 47 5.6	− 4.78	. .	1
393	2308 B. A. C. . .	6	6 55 43.98	+ 1.188	− 0.017	1	− 55 26 54.1?	− 4.83	+ 2.28?	1
394	2310 B. A. C. . .	7	6 55 47.19	+ 1.135	. .	1	− 56 11 15.4	− 4.83	. .	1
395	2598 Lacaille? . .	6.5	6 55 48.71?	+ 1.145	. .	1	− 56 3 .	− 4.84		
396	2606 Lacaille? . .	8.2	6 57 25.93	+ 1.101	− 0.330	2	− 56 41 44.7	− 4.97	− 5.45	2
397	2605 Lacaille . .	7.5	6 57 31.37	+ 1.515	− 0.049	1	− 50 15 10.4	− 4.98	+ 0.36	1
398	2613 Lacaille . .	8.3	6 58 7.29	+ 0.987	− 0.009	2	− 58 10 47.7	− 5.03	+ 0.36	2
399	2602 Lacaille . .	7.5	6 58 8.43	+ 1.981	+ 0.016	1	− 40 8 28.5	− 5.03	− 0.25	1
400	2619 Lacaille . .	7.5	6 58 15.39	+ 0.725	− 0.028	2	− 61 8 2.1	− 5.04	+ 0.43	2
401	Anonymous .	7.5	6 58 19.67	+ 1.462	. .	1	− 50 12 48.6	− 5.05	. .	1
402	2603 Lacaille . .	8	6 58 26.50	+ 2.198	− 0.099	1	− 34 2 47.3	− 5.06	+ 0.14	1
403	Anonymous .	8	6 58 34.62	+ 1.539	. .	1	− 49 50 52.6	− 5.07	. .	1
404	Anonymous .	8	6 58 52.68	+ 0.746	. .	1	− 60 55 38.8	− 5.10	. .	1
405	2609 Lacaille . .	7.5	6 58 53.88	+ 1.547	− 0.021	1	− 49 42 31.5	− 5.10	− 0.02	1
406	2620 Lacaille . .	8	6 58 58.98	+ 1.126	− 0.017	2	− 56 24 17.7	− 5.10	− 0.38	2
407	C Puppis . . .	5.5	6 59 17.52	+ 1.903	− 0.020.	2	− 42 7 5.5	− 5.13	+ 0.29	2
408	2328 B. A. C. . .	6.5	6 59 21.49	+ 1.849	+ 0.003	1	− 43 24 7.2	− 5.14	+ 0.30	1
409	Anonymous .	7	6 59 22.33	+ 1.075	. . .	1	− 57 5 51.6	− 5.14	. .	1
410	Anonymous .	8	6 59 23.02	+ 1.850	. .	1	− 43 24 16.7	− 5.14	. .	1
411	Anonymous .	8.5	6 59 24.77	+ 1.053	. .	1	− 57 23 2.1	− 5.14	. .	1
412	2632 Lacaille? . .	8.5	6 59 38.72	+ 1.062	− 0.156	1	− 57 16 45.1	− 5.16	− 1.31	1
413	2611 Lacaille . .	7	6 59 44.92	+ 1.978	+ 0.020	1	− 40 15 39.5	− 5.17	− 0.13	1
414	Anonymous .	7.5	6 59 47.29	+ 2.204	. .	1	− 33 55 15.6	− 5.17	. .	1
415	2626 Lacaille . .	7.5	6 59 54.37	+ 1.407	− 0.011	1	− 52 12 13.0	− 5.18	+ 0.15	1
416	2612 Lacaille . .	7	7 0 5.10	+ 2.183	− 0.008	1	− 34 33 11.0	− 5.20	+ 0.03	1
417	2333 B. A. C.? . .	6*	7 0 5.37	− 0.079	− 0.016	1	− 67 42 36.4	− 5.20	+ 0.23	1
418	2628 Lacaille . .	7	7 0 8.23	+ 1.509	− 0.015	2	− 50 26 16.9	− 5.20	+ 0.02	2
419	2616 Lacaille . .	7.7	7 0 14.93	+ 2.063	+ 0.004	2	− 38 0 25.4	− 5.21	+ 0.37	2
420	2618 Lacaille? . .	8.5	7 0 27.43	+ 2.085	− 0.038	1	− 37 24 9.7	− 5.23	− 1.36	1
421	2635 Lacaille . .	7.5	7 0 33.48	+ 1.178	− 0.003	1	− 55 43 35.0	− 5.24	+ 0.09	1
422	2622 Lacaille . .	7	7 0 36.87	+ 1.973	+ 0.015	1	− 40 24 57.1	− 5.24	+ 0.02	1
423	Anonymous .	7	7 0 38.54	+ 1.526	. .	1	− 50 8 47.4	− 5.25	. .	1
424	2335 B. A. C. . .	5.5	7 0 53.49	+ 2.059	− 0.008	1	− 38 9 20.0	− 5.27	+ 0.15	1
425	2629 Lacaille . .	7	7 1 8.58	+ 2.083	+ 0.013	1	− 37 28 47.3	− 5.29	− 0.07	1
426	Anonymous .	9	7 1 9.89	+ 1.067	. .	1	− 57 15 33.6	− 5.29	. .	1
427	2337 B. A. C. . .	8	7 1 12.16	+ 1.907	− 0.050	1	− 42 5 59.0	− 5.29	− 0.20	1
428	Anonymous .	8.5	7 1 16.39	+ 1.908	. .	1	− 42 5 4.3	− 5.30	. .	1
429	2639 Lacaille . .	6.5	7 1 27.82	+ 1.529	− 0.045	2	− 50 8 1.6	− 5.32	+ 0.38	2
430	2339 B. A. C. . .	5	7 1 30.58	+ 1.123	+ 0.010	2	− 56 31 25.3	− 5.32	+ 0.19	2
431	2342 B. A. C. . .	7.5	7 1 43.01	+ 1.854	+ 0.005	1	− 43 22 50.2	− 5.34	− 0.11	1
432	D Puppis . . .	5.7	7 2 12.44	+ 1.965	+ 0.014	2	− 40 39 39.3	− 5.38	+ 0.01	2

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
433	2650 Lacaille . .	8	7 3 9.69	+ 1.519	− 0.022	1	− 50 23 46.1	− 5.46	− 0.12	1
434	A Puppis . . .	5	7 3 48.85	+ 2.015	. .	1	− 39 25 3.7	− 5.51	. .	1
435	2657 Lacaille . .	7	7 3 53.84	+ 1.051	− 0.016	1	− 57 32 40.6	− 5.52	+ 0.29	1
436	Anonymous .	8	7 4 30.59	+ 1.549	. .	1	− 49 51 38.2	− 5.57	. .	1
437	2654 Lacaille . .	8	7 5 10.78	+ 2.106	− 0.006	1	− 36 58 15.2	− 5.63	− 0.48	1
438	2661 Lacaille . .	7.5	7 5 46.28	+ 1.957	+ 0.013	1	− 41 1 15.6	− 5.68	+ 0.47	1
439	2678 Lacaille . .	8	7 5 56.52	+ 1.010	− 0.012	1	− 58 7 53.2	− 5.69	+ 0.33	1
440	Anonymous .	9	7 6 31.69	+ 2.066	. .	2	− 38 8 37.0	− 5.74	. .	2
441	2673 Lacaille . .	6	7 6 45.95	+ 1.615	+ 0.006	1	− 48 41 38.0	− 5.76	+ 0.01	1
442	2704 Lacaille . .	7	7 6 46.97	− 0.195	− 0.039	1	− 68 35 54.0	− 5.76	+ 0.17	1
443	2670 Lacaille . .	8	7 7 4.48	+ 2.075	− 0.011	1	− 37 55 23.5	− 5.79	+ 5.76	1
444	Anonymous .	10	7 7 12.74	+ 2.143	. .	1	− 35 58 13.8	− 5.80	. .	1
445	Anonymous .	8.5	7 7 13.24	+ 2.143	. .	1	− 35 58 12.7	− 5.80	. .	1
446	2671 Lacaille . .	8.5	7 7 14.25	+ 2.143	− 0.007	1	− 35 59 2.4	− 5.80	− 0.15	1
447	2380 B. A. C. . .	6.5	7 7 18.07	+ 1.988	+ 0.015	1	− 40 14 52.1	− 5.81	− 0.04	1
448	Anonymous .	9	7 7 58.52	+ 1.853	. .	1	− 43 37 53.7	− 5.86	. .	1
449	2683 Lacaille . .	7	7 8 15.29	+ 1.854	− 0.033	1	− 43 37 53.7	− 5.88	0.00	1
450	Anonymous .	8	7 8 38.33	+ 1.546	. .	1	− 50 3 57.4	− 5.92	. .	1
451	2696 Lacaille . .	7.5	7 9 1.42	+ 1.498	+ 0.003	1	− 50 57 27.5	− 5.95	+ 0.04	1
452	2693 Lacaille . .	7	7 9 30.50	+ 2.111	− 0.006	1	− 36 59 13.9	− 5.99	+ 0.13	1
453	2707 Lacaille . .	8	7 9 31.47	+ 1.339	− 0.045	2	− 53 38 19.1	− 5.99	− 0.72	2
454	2701 Lacaille . .	7.5	7 9 48.56	+ 1.748	+ 0.012	1	− 46 4 8.1	− 6.02	− 0.37	1
455	2703 Lacaille . .	8	7 9 50.26	+ 1.654	− 0.020	1	− 48 2 31.4	− 6.02	− 0.11	1
456	2699 Lacaille . .	7.5	7 9 55.88?	+ 1.967	− 0.071?	2	− 40 54 36.6	− 6.03	+ 1.69	2
457	2401 B. A. C. . .	6	7 10 3.36	+ 1.957	− 0.009	1	− 41 10 3.5	− 6.04	+ 0.21	1
458	2717 Lacaille . .	7	7 10 3.41	+ 1.091	− 0.017	1	− 57 14 1.8	− 6.04	+ 0.15	1
459	2709 Lacaille . .	6.5	7 10 7.55	+ 1.541	+ 0.006	1	− 50 12 52.7	− 6.04	+ 0.10	1
460	2402 B. A. C. . .	6	7 10 17.47	+ 1.356	− 0.024	1	− 53 24 38.0	− 6.06	− 0.10	1
461	2711 Lacaille . .	5.5	7 10 29.78	+ 1.656	− 0.010	2	− 48 0 42.2	− 6.07	0.00	2
462	2708 Lacaille? . .	6.5	7 10 34.64	+ 1.932	− 0.011	1	− 41 49 35.0	− 6.08	+ 1.49	1
463	Anonymous .	7.7	7 10 48.78	+ 1.930	. .	2	− 41 53 29.7	− 6.10	. .	2
464	2712 Lacaille . .	7.2	7 11 5.87	+ 1.931	− 0.001	2	− 41 52 38.0	− 6.12	+ 0.47	2
465	δ GEMINORUM .	3.5*	7 11 9.62	+ 3.593	. .	40	+ 22 15 11.7	− 6.13	. .	36
466	2725 Lacaille . .	8.5	7 11 23.03	+ 1.660	− 0.048	1	− 47 58 27.2	− 6.15	− 0.04	1
467	Anonymous .	8	7 11 46.86	+ 1.544	. .	1	− 50 14 9.7	− 6.18	. .	1
468	Anonymous .	8.7	7 11 47.98	+ 2.119	. .	2	− 36 50 50.1	− 6.18	. .	2
469	2734 Lacaille . .	6.5	7 11 47.96	+ 1.430	− 0.017	1	− 52 14 25.1	− 6.18	+ 0.20	1
470	Anonymous .	8.5	7 11 48.02	+ 1.931	. .	1	− 41 53 44.9	− 6.18	. .	1
471	π Argus . . .	2.7	7 11 50.79	+ 2.119	. .	37	− 36 49 51.5	− 6.18	. .	37
472	2737 Lacaille . .	7	7 12 25.04	+ 1.569	+ 0.003	2	− 49 46 56.6	− 6.23	+ 0.01	2
473	2745 Lacaille . .	7.5	7 12 48.53	+ 1.279	− 0.049	1	− 54 41 48.8	− 6.27	+ 0.21	1
474	2759 Lacaille? . .	7.5	7 14 31.23	+ 1.464	− 0.029	1	− 51 46 16.3	− 6.41	− 7.07?	1
475	2770 Lacaille . .	8	7 15 40.32	+ 1.116	− 0.060	2	− 57 4 33.5	− 6.50	− 1.11	2
476	2445 B. A. C. . .	7	7 16 44.49	+ 1.454	− 0.023	1	− 52 2 11.3	− 6.59	+ 0.07	1
477	Anonymous .	8.5	7 16 44.95	+ 1.454	. .	1	− 52 2 4.1	− 6.59	. .	1
478	2791 Lacaille . .	7	7 16 46.82	+ 1.115	− 0.021	1	− 57 10 16.5	− 6.59	+ 0.14	1
479	2767 Lacaille .	9	7 16 51.79	+ 2.167	− 0.020	1	− 35 38 15.4	− 6.60	+ 0.05	1
480		8	7 16 52.04	+ 2.167	. .	1	− 35 38 7.8	− 6.60	. .	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
481	δ Volantis	4	7 16 53.35	− 0.004	. .	3	− 67 40 57.7	− 6.60	. .	3
482	Anonymous	9.5	7 16 57.19	+ 1.461	. .	1	− 51 54 57.8	− 6.61	. .	1
483	2783 Lacaille	6.5	7 16 59.56	+ 1.468	+ 0.015	1	− 51 48 15.4	− 6.61	− 0.10	1
484	2785 Lacaille	7.5	7 17 0.78	+ 1.461	− 0.015	1	− 51 55 3.9	− 6.61	+ 0.15	1
485	2784 Lacaille	7	7 17 5.00	+ 1.507	0.000	1	− 51 7 26.0	− 6.62	+ 0.09	1
486	2786 Lacaille	7.5	7 17 11.59	+ 1.538	− 0.013	1	− 50 34 20.0	− 6.63	+ 0.01	1
487	Anonymous	8	7 17 19.55	+ 1.482	. .	1	− 51 34 55.6	− 6.64	. .	1
488	2450 B. A. C.	6.5	7 17 24.44	+ 1.200	− 0.004	1	− 56 11 39.8	− 6.65	− 0.28	1
489	2780 Lacaille	7.5	7 17 56.47	+ 2.155	− 0.005	2	− 36 3 7.2	− 6.69	+ 0.01	2
490	η Canis Majoris	2.5*	7 18 9.81	+ 2.373	. .	20	− 29 0 51.3	− 6.71	. .	20
491	2790 Lacaille	6.5	7 18 32.91	+ 2.172	− 0.010	1	− 35 32 57.0	− 6.74	− 0.15	1
492	2807 Lacaille	7	7 19 12.31	+ 1.449	+ 0.086	1	− 52 13 45.8	− 6.79	+ 2.04	1
493	Anonymous	7	7 19 28.73	+ 2.125	. .	1	− 37 0 . .	− 6.82		
494	2801 Lacaille	6.5	7 19 29.05	+ 2.125	0.000	1	− 36 59 59.6	− 6.82	− 0.12	1
495	2811 Lacaille	7.5	7 19 54.36	+ 1.392	− 0.028	2	− 53 13 3.8	− 6.85	− 0.05	2
496	2816 Lacaille	7.5	7 20 15.52	+ 1.382	− 0.026	1	− 53 22 43.6	− 6.88	− 0.02	1
497	2838 Lacaille	8	7 20 28.25	− 0.362	− 0.241	1	− 69 55 15.6	− 6.90	− 0.92	1
498	Anonymous	9.5	7 20 48.44	− 0.805	. .	1	− 72 4 . .	− 6.92		
499	Anonymous	8	7 21 27.71	+ 2.226	. .	1	− 34 1 . .	− 6.98		
500	2815 Lacaille	6.5	7 21 28.71	+ 2.226	− 0.044	1	− 34 0 59.7	− 6.98	− 0.01	1
501	2853 Lacaille	7*	7 22 32.49	− 0.612	− 0.299	1	− 71 14 24.9	− 7.07	+ 2.39	1
502	2824 Lacaille	7*	7 23 6.34	+ 2.113	+ 0.013	1	− 37 30 9.1	− 7.11	− 0.16	1
503	2826 Lacaille	7	7 23 25.43	+ 2.210	− 0.012	1	− 34 36 41.6	− 7.14	+ 0.08	1
504	2830 Lacaille	8	7 23 42.47	+ 2.234	− 0.008	1	− 33 51 50.0	− 7.16	+ 0.39	1
505	σ Argus	3	7 24 28.57	+ 1.909	. .	2	− 43 0 1.3	− 7.23	. .	2
506	Anonymous	9.7	7 24 30.66	+ 1.909	. .	2	− 42 59 54.5	− 7.23	. .	2
507	2836 Lacaille	7	7 24 58.38	+ 2.239	+ 0.013	1	− 33 46 44.2	− 7.27	+ 1.06	1
508	α^1 Geminorum	1.5*	7 25 1.06	+ 3.857	. .	1	+ 32 12 46.6	− 7.27	. .	1
509	α^2 GEMINORUM	1.5*	7 25 1.31	+ 3.857	. .	22	+ 32 12 43.6	− 7.27	. .	21
510	2840 Lacaille	7	7 25 18.70	+ 2.002	+ 0.012	1	− 40 40 35.1	− 7.29	− 0.14	1
511	2839 Lacaille	7	7 25 23.96	+ 2.133	− 0.035	1	− 37 1 41.0	− 7.30	− 0.53	1
512	Anonymous	9.5	7 25 41.99	− 0.773	. .	1	− 72 4 . .	− 7.33		
513	2842 Lacaille	7	7 25 59.78	+ 2.174	− 0.011	1	− 35 50 19.7	− 7.35	− 0.04	1
514	2875 Lacaille	8	7 26 8.17	− 0.355	− 0.014	1	− 70 5 57.0	− 7.36	+ 0.48	1
515	Anonymous	9.5	7 26 9.20	+ 2.039	. .	1	− 39 43 14.2	− 7.36	. .	1
516	2841 Lacaille	8.5	7 26 11.69	+ 1.846	+ 0.579?	1	− 44 36 2.8	− 7.37	+ 0.26	1
517	2843 Lacaille	6.5	7 26 15.40	+ 2.183	− 0.015	2	− 35 34 19.4	− 7.37	− 0.10	2
518	Anonymous	9	7 26 30.31	− 0.768	. .	1	− 72 4 . .	− 7.39		
519	2847 Lacaille	6	7 26 55.35	+ 2.182	− 0.011	1	− 35 38 33.8	− 7.43	− 0.10	1
520	2866 Lacaille?	8.5	7 26.57.62	+ 1.915	− 0.929	1	− 42 58 23.7	− 7.43	− 0.32	1
521	2863 Lacaille	8	7 27 3.95	+ 1.231	− 0.030	1	− 56 0 14.1	− 7.44	− 0.65	1
522	2868 Lacaille	7.5	7 27 23.52	+ 1.168	− 0.009	1	− 56 53 44.1	− 7.46	+ 0.03	1
523	2858 Lacaille?	8	7 27 27.75	+ 2.043	− 0.403	1	− 39 40 58.3	− 7.47	+ 2.11	1
524	Anonymous	9	7 27 27.91	+ 0.225	. .	1	− 66 27 . .	− 7.47		
525	2872 Lacaille	8	7 28 10.22	+ 1.214	− 0.024	1	− 56 18 24.6	− 7.53	− 0.36	1
526	2869 Lacaille	7.5	7 28 51.68	+ 2.049	− 0.004	1	− 39 35 1.9	− 7.58	+ 0.12	1
527	2874 Lacaille?	7	7 29 4.18	+ 1.871	− 0.355	1	− 44 9 42.6	− 7.60	+ 1.06	1
528	2871 Lacaille	7.7	7 29 28.47	+ 1.969	+ 0.020	2	− 41 44 52.4	− 7.63	+ 0.44	2

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
529	Anonymous	8	7 29 34.01	+ 1.956	. .	2	− 42 4 25.3	− 7.64	. .	2
530	Anonymous	8.5	7 29 46.86	+ 1.629	. .	1	− 49 25 33.7	− 7.66	. .	1
531	Anonymous	8	7 30 5.85	+ 2.139	. .	1	− 37 5 27.8	− 7.68	. .	1
532	2884 Lacaille	7	7 30 34.80	+ 2.139	− 0.017	1	− 37 6 58.5	− 7.72	− 0.44	1
533	2892 Lacaille	6	7 30 49.04	+ 1.541	+ 0.001	1	− 51 8 46.1	− 7.74	+ 0.12	1
534	2898 Lacaille	7.7	7 31 0.00	+ 1.391	− 0.018	2	− 53 44 14.4	− 7.76	− 0.15	2
535	Anonymous	8.5	7 31 18.84	+ 1.972	. .	1	− 41 45 4.5	− 7.78	. .	1
536	2905 Lacaille?	8	7 31 24.21	+ 1.633	− 0.564	1	− 49 26 23.3	− 7.79	− 0.41	1
537	α CANIS MINORIS	1*	7 31 26.91	+ 3.193	. .	81	+ 5 36 18.1	− 7.79	. .	79
538	2889 Lacaille?	7	7 31 34.72	+ 1.857	+ 0.331	1	− 44 37 26.9	− 7.80	+ 6.53	1
539	2894 Lacaille?	7	7 31 59.33	+ 1.856	+ 0.288	1	− 44 39 13.3	− 7.84	+ 6.37	1
540	2897 Lacaille	7.5	7 32 13.51	+ 2.213	− 0.007	1	− 34 56 29.4	− 7.85	− 0.25	1
541	Anonymous	8	7 32 16.84	+ 1.855	. .	1	− 44 41 35.5	− 7.86	. .	1
542	2910 Lacaille	7.5	7 32 58.00	+ 1.391	− 0.004	1	− 53 51 5.1	− 7.91	− 0.03	1
543	2915 Lacaille?	7.5	7 33 14.37	+ 1.915	− 0.668	2	− 43 18 15.6	− 7.94	− 7.03	2
544	Anonymous	8.5	7 33 31.08	+ 1.399	. .	1	− 53 44 41.8	− 7.96	. .	1
545	2935 Lacaille	6.5*	7 33 32.43	− 0.033	− 0.043	1	− 68 26 16.7	− 7.96	+ 0.14	1
546	2919 Lacaille	8	7 33 48.50	+ 1.106	− 0.009	1	− 58 2 28.4	− 7.98	+ 0.51	1
547	Anonymous	8.5	7 33 56.31	+ 1.919	. .	1	− 43 15 16.8	− 7.99	. .	1
548	d^1 Puppis	4.5	7 34 10.28	+ 2.115	+ 0.007	1	− 37 57 58.6	− 8.01	− 0.07	1
549	d^2 Puppis	5	7 34 25.48	+ 2.122	+ 0.012	1	− 37 47 44.6	− 8.03	− 0.19	1
550	2544 B. A. C.	7*	7 34 26.00	+ 3.585	. .	1	+ 22 45 . .	− 8.03		
551	d^3 Puppis	5	7 34 30.13	+ 2.118	+ 0.010	1	− 37 55 1.9	− 8.04	− 0.13	1
552	Anonymous	7.5	7 34 51.97	+ 1.931	. .	1	− 43 0 30.3	− 8.07	. .	1
553	Anonymous	8	7 34 52.69	+ 1.601	. .	1	− 50 14 10.4	− 8.07	. .	1
554	κ Geminorum	3.5*	7 35 23.19	+ 3.635	. .	3	+ 24 45 11.8	− 8.11	. .	1
555	2922 Lacaille	7.5	7 35 32.98	+ 1.850	+ 0.009	1	− 45 0 14.2	− 8.12	− 0.09	1
556	2931 Lacaille	8.5	7 35 55.30	+ 1.605	− 0.077	1	− 50 13 33.1	− 8.15	− 0.07	1
557	2554 B. A. C.	5.5	7 35 59.29	+ 2.112	− 0.011	1	− 38 11 8.5	− 8.16	+ 0.10	1
558	2925 Lacaille	7.5	7 36 6.68	+ 1.940	− 0.021	1	− 42 50 10.4	− 8.17	− 1.02	1
559	β GEMINORUM	1.5*	7 36 7.79	+ 3.731	. .	60	+ 28 23 0.9	− 8.17	. .	55
560	2933 Lacaille?	7	7 36 37.31	+ 1.923	− 0.045	2	− 43 17 7.5	− 8.21	− 0.95	2
561	2937 Lacaille	7	7 36 39.76	+ 1.742	+ 0.006	1	− 47 28 55.5	− 8.21	+ 0.04	1
562	2928 Lacaille	6	7 36 41.45	+ 2.113	− 0.015	1	− 38 10 40.5	− 8.21	+ 0.08	1
563	Anonymous	8.5	7 36 54.93	+ 2.114	. .	1	− 38 10 4.4	− 8.23	. .	1
564	2951 Lacaille	8	7 37 25.05	+ 1.314	− 0.040	1	− 55 18 7.3	− 8.27	+ 0.36	1
565	2561 B. A. C.	6.5	7 37 42.62	+ 2.197	− 0.014	1	− 35 41 45.4	− 8.29	− 0.41	1
566	2959 Lacaille	6.5	7 38 9.24	+ 1.086	+ 0.010	1	− 58 31 10.0	− 8.33	+ 0.62	1
567	Anonymous	9.5	7 38 22.86	+ 0.293	. .	1	− 66 22 22.2	− 8.35	. .	1
568	2568 B. A. C.	7	7 38 24.13	+ 2.128	+ 0.010	1	− 37 50 45.7	− 8.35	− 0.17	1
569	W Puppis	5.5	7 38 35.51	+ 2.031	+ 0.033	2	− 40 34 11.5	− 8.36	− 0.15	2
570	2947 Lacaille	9	7 38 35.74	+ 2.070	− 0.026	1	− 39 30 56.3	− 8.36	− 0.24	1
571	Anonymous	9.5	7 38 35.89	+ 2.070	. .	1	− 39 31 4.7	− 8.36	. .	1
572	2949 Lacaille	7	7 38 40.14	+ 2.055	0.000	1	− 39 57 7.5	− 8.37	+ 0.17	1
573	2944 Lacaille	6	7 38 41.04	+ 2.199	− 0.020	1	− 35 42 29.3	− 8.37	− 0.02	1
574	2960 Lacaille	7	7 39 1.04	+ 1.644	− 0.041	1	− 49 38 9.9	− 8.40	+ 0.82	1
575	2577 B. A. C.	6.5	7 39 24.74	+ 1.110	− 0.053	1	− 58 16 35.8	− 8.43	+ 1.03	1
576	2969 Lacaille	7	7 39 33.42	+ 1.531	− 0.024	1	− 51 48 11.6	− 8.44	+ 0.68	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
577	82 Geminorum	7*	7 39 35.20	+ 3.599	. .	9	+ 23 30 25.4	− 8.44	. .	9
578	2579 B. A. C. . .	7	7 39 35.63	+ 1.108	− 0.017	1	− 58 18 47.4	− 8.44	+ 0.29	1
579	2971 Lacaille? . .	9.5	7 39 52.15	+ 1.421	+ 0.217	1	− 53 43 1.7	− 8.47	+ 0.64	1
580	*c* Puppis . .	5	7 39 54.86	+ 2.138	. .	1	− 37 36 27.0	− 8.47	. .	1
581	2964 Lacaille . .	7.7	7 39 57.42	+ 2.074	− 0.014	2	− 39 29 13.9	− 8.47	− 0.29	2
582	2971 Lacaille? . .	7	7 39 58.80	+ 1.412	+ 0.287	1	− 53 53 0.6	− 8.47	− 5.35?	1
583	2987 Lacaille . .	7.2	7 39 59.18	+ 1.060	+ 0.002	2	− 58 56 47.8	− 8.48	+ 0.02	2
584	2962 Lacaille . .	6.5	7 40 5.07	+ 2.152	− 0.001	1	− 37 14 6.5	− 8.48	− 0.16	1
585	Anonymous .	7	7 40 8.16	+ 2.092	. .	1	− 38 58 59.9	− 8.49	. .	1
586	2974 Lacaille . .	6.5	7 40 29.34	+ 1.928	+ 0.002	1	− 43 23 22.4	− 8.51	− 0.01	1
587	2989 Lacaille? . .	8	7 41 2.40	+ 1.635	− 0.097	1	− 49 55 31.7	− 8.56	+ 1.88	1
588	2593 B. A. C. . .	6.7	7 41 23.27	+ 2.069	+ 0.002	2	− 39 41 36.9	− 8.57	+ 00.3	2
589	Anonymous .	7.7	7 41 38.24	+ 0.289	. .	2	− 66 32 34.4	− 8.61	. .	2
590	2985 Lacaille . .	6.7	7 41 44.60	+ 2.204	− 0.015	2	− 35 42 25.3	− 8.61	− 0.12	2
591	2988 Lacaille . .	6.5	7 41 51.92	+ 2.096	+ 0.003	1	− 38 57 49.0	− 8.62	+ 0.16	1
592	2997 Lacaille . .	7.5	7 42 10.95	+ 1.691	0.000	1	− 48 52 32.0	− 8.65	− 0.38	1
593	2996 Lacaille . .	7.5	7 42 15 56	+ 1.804	− 0.014	1	− 46 26 5.3	− 8.65	0.00	1
594	3005 Lacaille . .	8	7 42 40.49	+ 1.605	− 0.018	1	− 50 37 53.8	− 8.69	+ 0.10	1
595	Anonymous .	7.5	7 42 47.91	+ 1.100	. .	1	− 58 35 22.2	− 8.70	. .	1
596	3007 Lacaille . .	7	7 42 51.41	+ 1.646	+ 0.002	1	− 49 48 56.4	− 8.70	+ 0.07	1
597	ξ Argus . . .	3.5*	7 42 59.16	+ 2.523	. .	6	− 24 29 12.7	− 8.71	. .	6
598	2603 B. A. C. . .	5.5	7 42 59.18	+ 1.814	+ 0.007	1	− 46 14 17.4	− 8.71	− 0.03	1
599	Anonymous .	9.5	7 43 6.30	+ 1.596	. .	1	− 50 47 46.6	− 8.72	. .	1
600	3013 Lacaille . .	7.5	7 43 7.59	+ 1.532	− 0.024	1	− 51 58 41.6	− 8.72	+ 0.23	1
601	3004 Lacaille . .	8	7 43 30.36	+ 2.138	− 0.012	1	− 37 49 44.2	− 8.75	− 1.02	1
602	ζ Volantis . .	5	7 43 38.05	− 0.686	+ 0.015	1	− 72 14 39.1	− 8.76	− 0.66	1
603	Anonymous .	10	7 43 41.49	− 0.683	. .	1	− 72 14 46.3	− 8.77	. .	1
604	3025 Lacaille . .	7.5	7 43 44.38	+ 1.093	+ 0.016	1	− 58 43 12.6	− 8.77	− 0.12	1
605	3055 Lacaille . .	8	7 43 50.88	− 0.176	+ 0.001	1	− 69 41 40.8	− 8.78	− 0.04	1
606	3016 Lacaille . .	8	7 43 56.23	+ 1.867	+ 0.003	1	− 45 5 26.4	− 8.79	− 0.12	1
607	84 Geminorum .	6.7*	7 44 6.12	+ 3.575	. .	1	+ 22 42 55.3	− 8.80	. .	1
608	2615 B. A. C. . .	8	7 44 9.40	+ 1.107	− 0.023	3	− 58 32 6.8	− 8.80	+ 0.92	2
609	3032 Lacaille . .	7*	7 44 11.27	+ 0.899	− 0.019	1	− 61 4 17.4	− 8.81	+ 0.74	1
610	φ Geminorum .	5*	7 44 18.56	+ 3.687	. .	3	+ 27 8 55.5	− 8.82	. .	3
611	3014 Lacaille . .	7	7 44 19.37	+ 2.209	− 0.016	1	− 35 43 0.9	− 8.82	− 0.15	1
612	P Puppis . . .	4.5	7 44 39.97	+ 1.829	. .	1	− 45 59 51.1	− 8.84	. .	1
613	3023 Lacaille . .	7	7 44 44.52	+ 1.898	− 0.005	1	− 44 22 33.0	− 8.85	0.00	1
614	3031 Lacaille . .	6	7 44 45.86	+ 1.400	+ 0.012	1	− 54 20 19.4	− 8.85	− 0.19	1
615	3028 Lacaille . .	8	7 44 46.33	+ 1.520	− 0.020	1	− 52 18 36.0	− 8.85	+ 0.32	1
616	3020 Lacaille . .	7.5	7 44 55.82	+ 2.205	− 0.045	1	− 35 51 50.4	− 8.86	− 1.05	1
617	Anonymous .	8.5	7 45 5.63	+ 2.205	. .	1	− 35 52 51.4	− 8.88	. .	1
618	3021 Lacaille . .	9	7 45 17.95	+ 2.265	− 0.009	1	− 33 58 8.7	− 8.89	− 0.57	1
619	2627 B. A. C. . .	7.5	7 45 56.74	+ 1.908	− 0.015	1	− 44 12 2.2	− 8.94	− 0.05	1
620	3045 Lacaille . .	8	7 45 58.82	+ 1.399	− 0.004	1	− 54 25 47.8	− 8.95	− 0.34	1
621	3039 Lacaille . .	7	7 46 25.41	+ 1.969	− 0.008	1	− 42 42 48.5	− 8.98	− 0.06	1
622	15401 H. C. . . .	.	7 46 29.47	+ 3.623	. .	3	+ 24 45 9.1	− 8.99	. .	3
623	3048 Lacaille . .	7.2	7 46 37.95	+ 1.766	− 0.045	2	− 47 33 17.7	− 9.00	+ 1.56	2
624	Anonymous .	7.5	7 46 39.17	+ 1.085	. .	1	− 58 59 32.6	− 9.00	. .	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
625	2629 B. A. C. . .	5	7 46 39.88	+ 2.256	− 0.035	1	− 34 19 56.6	− 9.00	+ 0.16	1
626	3042 Lacaille . .	6.5	7 46 44.41	+ 1.978	− 0.016	2	− 42 30 19.8	− 9.01	+ 0.21	2
627	15412 H. C. . . .	9.5	7 46 49.98	+ 3.619	. .	3	+ 24 37 6.9	− 9.01	. .	3
628	Anonymous .	11	7 46 56.98	+ 2.134	. .	1	− 38 10 21.6	− 9.02	. .	1
629	Center of Neb.	.	7 46 57.33	+ 2.135	. .	1	− 38 11 3.7	− 9.02	. .	1
630	Bessel 341 . .	.	7 46 58.58	+ 3.630	. .	3	+ 25 3 21.5	− 9.03	. .	3
631	Anonymous .	9	7 47 8.31	+ 2.000	. .	1	− 41 56 22.6	− 9.04	. .	1
632	3051 Lacaille . .	7	7 47 14.71	+ 2.000	+ 0.025	1	− 41 56 16.6	− 9.05	+ 0.28	1
633	3064 Lacaille . .	7	7 47 21.37	+ 1.033	+ 0.021	1	− 59 40 13.5	− 9.06	− 0.12	1
634	3050 Lacaille . .	8	7 47 36.38	+ 2.251	− 0.002	1	− 34 33 8.7	− 9.07	− 0.14	1
635	Anonymous .	10	7 47 46.07	+ 2.131	. .	1	− 38 17 33.7	− 9.09	. .	1
636	Bessel 341 . .	.	7 48 31.24	+ 3.624	. .	5	+ 24 54 30.2	− 9.15	. .	5
637	3065 Lacaille . .	7	7 48 58.41	+ 2.028	− 0.014	1	− 41 18 45.0	− 9.18	+ 0.16	1
638	3071 Lacaille . .	6.5	7 49 23.32	+ 2.030	− 0.142	1	− 41 15 54.0	− 9.21	− 2.60	1
639	3076 Lacaille . .	7.5	7 50 9.57	+ 1.876	0.000	1	− 45 16 12.9	− 9.27	− 0.09	1
640	3077 Lacaille . .	7	7 50 14.51	+ 1.671	+ 0.006	1	− 49 46 38.8	− 9.28	+ 0.21	1
641	3079 Lacaille . .	8.5	7 50 18.44	+ 1.562	+ 0.042	1	− 51 51 50.0	− 9.28	+ 0.19	1
642	Anonymous .	7.5	7 50 45.72	+ 1.948	. .	1	− 43 23 3.9	− 9.32	. .	1
643	Bessel 339 . .	10	7 50 52.27	+ 3.611	. .	3	+ 24 28 44.1	− 9.33	. .	3
644	3080 Lacaille . .	7	7 50 53.97	+ 1.951	− 0.003	1	− 43 26 56.4	− 9.33	+ 0.20	1
645	3084 Lacaille . .	7	7 51 10.89	+ 1.865	+ 0.004	1	− 45 34 59.8	− 9.35	− 0.11	1
646	3082 Lacaille . .	6.5	7 51 14.10	+ 2.068	+ 0.014	2	− 40 20 18.1	− 9.36	+ 0.06	2
647	3078 Lacaille . .	6.7	7 51 21.82	+ 2.276	− 0.007	2	− 33 58 45.6	− 9.37	− 0.09	2
648	3090 Lacaille .	9	7 51 39.38	+ 1.492	− 0.044	1	− 53 13 2.8	− 9.39	− 0.12	1
649		8	7 51 40.75	+ 1.491		1	− 53 13 35.7	− 9.39		1
650	2656 B. A. C. . .	6.3	7 51 46.57	+ 1.259	+ 0.006	2	− 56 54 26.7	− 9.40	+ 0.01	2
651	Anonymous .	7	7 51 50.05	+ 3.482	. .	1	+ 19 10 . .	− 9.40		
652	3086 Lacaille . .	7	7 51 56.42	+ 2.009	+ 0.006	1	− 42 0 26.0	− 9.41	− 0.04	1
653	3087 Lacaille . .	7	7 52 2.82	+ 1.968	+ 0.002	1	− 43 6 3.4	− 9.42	+ 0.18	1
654	3095 Lacaille . .	7	7 52 9.20	+ 1.618	− 0.060	1	− 50 56 24.5	− 9.43	− 0.85	1
655	3 Cancri . . .	6*	7 52 11.29	+ 3.449	. .	2	+ 17 42 53.0	− 9.43	. .	2
656	Anonymous .	8	7 52 13.14	+ 1.969	. .	1	− 43 5 0.0	− 9.43	. .	1
657	2661 B. A. C. . .	5.5	7 52 26.75	+ 1.944	− 0.022	1	− 43 42 34.5	− 9.45	− 0.06	1
658	15608 H. C. . . .	.	7 52 31.16	+ 3.604	. .	3	+ 24 19 17.5	− 9.46	. .	3
659	3091 Lacaille . .	7	7 52 43.90	+ 2.070	+ 0.002	1	− 40 22 52.8	− 9.47	− 0.15	1
660	Anonymous .	7.5	7 52 49.96	+ 1.856	. .	1	− 45 55 25.8	− 9.48	. .	1
661	3094 Lacaille ? . .	7	7 52 52.61	+ 1.787	+ 0.214	1	− 47 29 20.2	− 9.48	− 0.10	1
662	χ Argus . . .	4	7 52 57.92	+ 1.532	. .	2	− 52 34 54.2	− 9.49	. .	2
663	3098 Lacaille . .	7.5	7 53 1.11	+ 1.845	0.000	1	− 46 11 25.1	− 0.49	− 0.17	1
664	3093 Lacaille . .	7	7 53 7.32	+ 2.198	+ 0.006	1	− 36 36 29.8	− 9.50	− 0.20	1
665	3100 Lacaille . .	7	7 53 49.97	+ 2.120	− 0.008	1	− 39 0 51.3	− 9.56	+ 0.26	1
666	3114 Lacaille . .	6.5	7.53 50.48	+ 0.978	− 0.008	1	− 60 41 51.6	− 9.56	+ 0.30	1
667	3101 Lacaille . .	7.5	7 54 2.07	+ 2.190	− 0.013	1	− 36 53 41.6	− 9.57	− 0.08	1
668	Bessel 341 . .	.	7 54 7.40	+ 3.619	. .	2	+ 25 0 12.7	− 9.58	. .	2
669	3106 Lacaille . .	7	7 54 16.19	+ 1.906	− 0.009	1	− 44 48 32.0	− 9.59	+ 0.18	1
670	3108 Lacaille . .	7	7 54 19.62	+ 1.620	− 0.008	2	− 51 2 38.3	− 9.60	+ 0.07	2
671	3109 Lacaille . .	7	7 54 35.34	+ 1.771	− 0.008	1	− 47 58 8.1	− 9.62	− 0.04	1
672	Anonymous .	8	7 54 46.80	+ 3.482	. .	1	+ 10 10 . .	− 9.63		

Number.	Name of star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
673	Bessel 341	10	7 54 56.13	+ 3.619	. .	14	+ 25 0 40.2	− 9.64	. .	14
674	3116 Lacaille	7.5	7 55 7.30	+ 1.622	− 0.008	2	− 51 3 26.0	− 9.66	− 0.08	2
675	15707 H. C.	8.7	7 55 8.16	+ 3.616	. .	6	+ 24 55 30.3	− 9.66	. .	5
676	3115 Lacaille	7	7 55 34.86	+ 1.900	+ 0.004	1	− 45 2 44.8	− 9.69	+ 0.05	1
677	2687 B. A. C.	6.5	7 56 19.97	+ 1.014	− 0.013	1	− 60 24 54.8	− 9.75	+ 0.13	1
678	3129 Lacaille?	9	7 56 37.77	+ 1.677	− 0.243	1	− 50 4 31.6	− 9.77	+ 0.72	1
679	Anonymous	7	7 57 2.50	+ 1.721	. .	1	− 49 12 21.7	− 9.80	. .	1
680	2694 B. A. C.	6	7 57 3.36	+ 1.037	− 0.007	1	− 60 10 32.9	− 9.80	− 0.03	1
681	3133 Lacaille	8	7 57 19.12	+ 1.632	− 0.016	1	− 51 1 26.6	− 9.82	+ 0.06	1
682	3132 Lacaille	7.5	7 57 24.51	+ 1.674	+ 0.010	3	− 50 11 22.5	− 9.83	+ 0.26	3
683	Anonymous	9.5	7 57 34.81	+ 2.064	. .	1	− 40 53 3.8	− 9.84	. .	1
684	2701 B. A. C.	6	7 57 35.39	+ 2.064	+ 0.013	1	− 40 53 32.8	− 9.84	+ 3.19	1
685	2703 B. A. C.	7.5	7 57 42.61	+ 3.563	. .	8	+ 22 52 58.6	− 9.85	. .	12
686	Anonymous	8.5	7 57 52.50	+ 1.680	. .	2	− 50 6 38.0	− 9.87	. .	2
687	2709 B. A. C.	6	7 58 1.71	+ 1.408	− 0.012	1	− 55 2 18.1	− 9.88	− 0.29	1
688	3143 Lacaille	7.5	7 58 18.50	+ 1.635	− 0.012	1	− 51 1 20.0	− 9.90	− 0.25	1
689	ζ Argus	2.7	7 58 18.80	+ 2.110	. .	4	− 39 34 59.9	− 9.90	. .	4
690	D¹ Carinæ	5.5	7 58 25.82	+ 0.775	− 0.007	1	− 63 9 9.9	− 9.91	+ 0.05	1
691	3149 Lacaille	7.7	7 58 37.82	+ 1.402	− 0.057	2	− 55 11 11.2	− 9.92	− 0.69	2
692	3150 Lacaille	7	7 58 45.28	+ 1.406	− 0.022	1	− 55 7 19.2	− 9.93	− 0.22	1
693	Bessel 341	10	7 59 16.90	+ 3.619	. .	3	+ 24 53 2.4	− 9.97	. .	3
694	3151 Lacaille	7.5	7 59 24.72	+ 1.812	− 0.110	1	− 47 23 35.2	− 9.98	+ 2.42	1
695	3147 Lacaille	7.5	7 59 28.08	+ 2.016	− 0.029	1	− 42 20 5.1	− 9.99	− 0.13	1
696	3155 Lacaille	8.5	8 0 23.20	+ 1.916	+ 0.003	1	− 44 59 15.7	−10.06	− 0.16	1
697	Anonymous	9	8 0 23.96	+ 1.916	. .	1	− 44 58 50.3	−10.06	. .	1
698	3160 Lacaille	7	8 0 54.21	+ 1.928	− 0.022	1	− 44 44 36.7	−10.10	+ 0.23	1
699	Anonymous	8.5	8 0 55.67	+ 2.106	. .	1	− 39 55 20.2	−10.10	. .	1
700	1894 Brisbane	7.5	8 0 56.88	+ 1.772	. .	1	− 48 22 48.7	−10.10	. .	1
701	3158 Lacaille?	8	8 0 58.76	+ 2.114	− 0.088	2	− 39 40 14.9	−10.10	− 1.73	2
702	Anonymous	8	8 0 59.58	+ 2.106	. .	1	− 39 54 54.8	−10.10	. .	1
703	15 Argus	3	8 1 9.42	+ 2.561	. .	84	− 23 52 31.3	−10.12	. .	78
704	3174 Lacaille	8	8 1 18.54	+ 0.529	− 0.049	1	− 65 35 29.4	−10.13	− 0.16	1
705	Anonymous	9	8 1 19.03	+ 1.920	. .	1	− 44 57 58.1	−10.13	. .	1
706	2733 B. A. C.	5.5	8 1 51.48	+ 1.927	− 0.011	1	− 44 50 6.3	−10.17	− 0.09	1
707	Anonymous	8.5	8 2 6.09	+ 2.137	. .	1	− 39 4 25.6	−10.19	. .	1
708	Anonymous	7.5	8 2 7.79	+ 2.204	. .	1	− 37 0 9.3	−10.19	. .	1
709	Anonymous	6	8 2 13.84	+ 1.791	. .	1	− 48 4 3.6	−10.20	. .	1
710	Anonymous	7.5	8 2 14.92	+ 2.205	. .	1	− 36 59 35.3	−10.20	. .	1
711	Anonymous	7.5	8 2 15.95	+ 1.832	. .	1	− 47 7 44.8	−10.20	. .	1
712	3175 Lacaille	8	8 2 21.51	+ 1.082	+ 0.014	1	− 59 57 32.4	−10.21	+ 0.23	1
713	3167 Lacaille	7	8 2 32.69	+ 1.823	+ 0.013	1	− 47 21 41.9	−10.22	+ 0.09	1
714	3171 Lacaille	8	8 3 3.75	+ 1.848	− 0.037	1	− 46 49 14.3	−10.26	+ 0.64	1
715	3168 Lacaille	7	8 3 7.83	+ 2.199	− 0.012	1	− 37 14 41.6	−10.26	− 0.08	1
716	3170 Lacaille	7	8 3 14.93	+ 2.140	− 0.022	1	− 39 3 46.6	−10.27	− 0.26	1
717	2742 B. A. C.	7	8 3 16.60	+ 1.770	− 0.261	1	− 48 34 37.2	−10.28	− 5.40	1
718	Anonymous	9	8 3 37.75	+ 2.141	. .	1	− 39 4 48.6	−10.30	. .	1
719	3172 Lacaille	7.5	8 3 41.55	+ 2.141	− 0.026	1	− 39 4 29.3	−10.31	− 0.12	1
720	3180 Lacaille	6.5	8 4 39.25	+ 1.980	− 0.020	1	− 43 41 0.4	−10.38	− 0.11	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
721	Anonymous	8	8 4 41.17	+ 1.098	. .	1	− 59 54 46.1	−10.38	. .	1
722	2752 B. A. C.	6	8 4 41.60	+ 1.790	+ 0.006	1	− 48 14 47.2	−10.38	− 0.21	1
723	2754 B. A. C.	5	8 4 51.95	+ 1.850	. .	3	− 46 54 20.1	−10.39	. .	3
724	γ Argus	2.8	8 4 54.62	+ 1.850	. .	19	− 46 53 48.2	−10.40	. .	19
725	1918 Brisbane	9	8 4 57.43	+ 1.850	. .	2	− 46 54 42.2	−10.40	. .	2
726	Anonymous	10	8 5 0.35	+ 1.850	. .	2	− 46 54 59.0	−10.41	. .	2
727	3193 Lacaille	7	8 5 25.24	+ 1.642	− 0.002	1	− 51 24 12.3	−10.44	− 0.05	1
728	Anonymous	7.3	8 5 31.36	+ 1.605	. .	3	− 52 7 59.8	−10.44	. .	3
729	3211 Lacaille?	8	8 5 37.95	+ 1.044	− 0.087	2	− 60 38 15.2	−10.45	+ 1.23	2
730	Anonymous	9	8 5 39.59	+ 1.044	. .	2	− 60 38 16.5	−10.45	. .	2
731	Anonymous	8	8 5 49.70	+ 1.779	. .	1	− 48 35 36.4	−10.47	. .	1
732	3189 Lacaille	7	8 5 52.07	+ 2.105	+ 0.009	1	− 40 18 54.6	−10.47	− 0.19	1
733	3216 Lacaille	7	8 6 3.73	+ 1.083	− 0.020	1	− 60 11 10.4	−10.48	+ 0.12	1
734	Bessel 341	9.7	8 6 8.81	+ 3.598	. .	5	+ 24 47 21.4	−10.49	. .	6
735	3225 Lacaille	8	8 6 10.67	+ 0.568	+ 0.007	1	− 65 32 14.7	−10.49	− 0.10	1
736	Anonymous	8	8 6 16.16	+ 2.013	. .	1	− 42 55 1.0	−10.50	. .	1
737	D^{3} Carinæ	7	8 6 26.75	+ 0.803	− 0.057	1	− 63 21 38.7	−10.51	+ 1.11	1
738	B Carinæ	5.7	8 6 30.82	+ 1.031	− 0.032	2.	− 60 50 55.6	−10.52	− 0.17	2
739	3220 Lacaille	6.5	8 6 36.56	+ 1.171	− 0.003	1	− 59 5 57.8	−10.52	+ 0.07	1
740	3201 Lacaille	6.5	8 6 44.01	+ 2.071	− 0.006?	1	− 41 20 31.2	−10.53	+ 0.45	1
741	Anonymous	9	8 6 46.50	+ 1.989	. .	1	− 43 35 23.6	−10.54	. .	1
742	3207 Lacaille	6	8 7 4.26	+ 2.014	+ 0.001	1	− 42 57 11.1	−10.56	+ 0.03	1
743	3213 Lacaille	7	8 7 17.17	+ 1.888	+ 0.030	1	− 46 11 49.9	−10.58	+ 0.03	1
744	3206 Lacaille	7	8 7 21.41	+ 2.201	− 0.011	1	− 37 28 32.3	−10.58	− 0.26	1
745	3218 Lacaille	6	8 7 45.39	+ 1.905	+ 0.027	1	− 45 48 57.4	−10.61	+ 0.11	1
746	3221 Lacaille	6.5	8 8 32.14	+ 2.278	+ 0.009	1	− 35 2 17.7	−10.67	+ 0.15	1
747	Anonymous	9.5	8 8 53.60	+ 1.879	. .	1	− 46 31 46.9	−10.69	. .	1
748	3228 Lacaille	6.5	8 8 54.61	+ 1.879	+ 0.006	1	− 46 32 21.8	−10.70	− 0.26	1
749	3232 Lacaille?	7.5	8 9 1.76	+ 1.896	− 0.080	1	− 46 7 35.0	−10.70	− 1.57	1
750	3230 Lacaille	7.5	8 9 3.72	+ 1.976	− 0.060	1	− 44 7 23.1	−10.71	+ 0.18	1
751	Anonymous	7	8 9 8.43	+ 1.969	. .	1	− 44 17 55.6	−10.71	. .	1
752	3239 Lacaille	7	8 9 10.36	+ 1.637	− 0.003	1	− 51 46 59.1	−10.72	− 0.36	1
753	3227 Lacaille	7	8 9 13.25	+ 2.112	− 0.014	1	− 40 22 17.4	−10.72	− 0.03	1
754	3236 Lacaille	6	8 9 13.65	+ 1.738	+ 0.001	1	− 49 44 32.7	−10.72	− 0.17	1
755	Anonymous	8	8 9 24.24	+ 1.883	. .	1	− 46 28 2.8	−10.73	. .	1
756	Anonymous	9.7	8 9 31.90	+ 1.928	. .	2	− 45 22 56.4	−10.74	. .	2
757	2783 B. A. C.	7	8 9 34.72	+ 1.928	+ 0.011	2	− 45 22 47.0	−10.75	+ 0.24	2
758	Anonymous	8	8 9 38.96	+ 1.734	. .	1	− 49 51 32.4	−10.75	. .	1
759	Anonymous	9.5	8 9 54.25	+ 2.225	. .	2	− 36 54 37.4	−10.77	. .	2
760	3234 Lacaille	8	8 9 54.59	+ 2.225	− 0.015	2	− 36 54 55.4	−10.77	0.00	2
761	3240 Lacaille	6.7	8 10 6.08	+ 1.904	+ 0.030	4	− 46 1 49.3	−10.78	+ 0.05	4
762	3253 Lacaille?	8	8 11 1.63	+ 1.386	+ 0.282	1	− 56 17 56.0	−10.85	+ 4.51	1
763	3246 Lacaille	8.5	8 11 3.59	+ 2.250	− 0.013	1	− 36 10 42.0	−10.85	− 0.04	1
764	3252 Lacaille	7	8 11 4.12	+ 1.733	+ 0.002	2	− 49 59 23.0	−10.86	+ 0.07	2
765	3250 Lacaille	7	8 11 5.93	+ 1.914	+ 0.014	1	− 45 51 18.2	−10.86	− 0.03	1
766	Anonymous	8	8 11 15.57	+ 1.755	. .	1	− 49 32 0.4	−10.87	. .	1
767	3255 Lacaille	7	8 11 17.61	+ 1.655	+ 0.011	1	− 51 35 56.3	−10.87	− 0.09	1
768	3264 Lacaille?	8	8 11 32.94	+ 1.048	− 0.096	1	− 60 59 11.7	−10.89	+ 1.54	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
769	λ Cancri . . .	7.5	8 11 36.57	+ 3.583	. .	29	+ 24 29 24.8	−10.89	. .	32
770	3256 Lacaille . .	7	8 12 8.72	+ 2.061	+ 0.065	1	− 42 3 27.8	−10.93	+ 0.20	1
771	3261 Lacaille . .	7	8 12 28.60	+ 1.624	− 0.016	1	− 52 17 53.2	−10.96	+ 0.28	1
772	2794 B. A. C. . .	6.5	8 12 33.94	+ 2.289	+ 0.009	1	− 34 59 11.4	−10.96	− 0.07	1
773	Anonymous .	8	8 12 36.89	+ 2.227	. .	1	− 37 0 42.9	−10.97	. .	1
774	3258 Lacaille . .	6.5	8 12 38.43	+ 2.232	− 0.013	1	− 36 54 35.5	−10.97	− 0.08	1
775	Anonymous .	9	8 12 41.19	+ 0.609	. .	1	− 65 34 1.4	−10.97	. .	1
776	3265 Lacaille? . .	8	8 12 42.41	+ 1.362	+ 0.259	1	− 56 48 26.3	−10.98	+ 3.73	1
777	*q* Puppis . . .	5.5	8 12 56.62	+ 2.253	. .	3	− 36 11 49.1	−10.99	. .	3
778	C Carinæ . . .	6.5	8 12 59.21	+ 0.928	. . .	3	− 62 27 13.0	−11.00	. .	3
779	Anonymous .	9.5	8 12 59.83	+ 0.928	. .	2	− 62 27 11.1	−11.00	. .	2
780	3271 Lacaille . .	7.5	8 13 1.73	+ 1.576	− 0.035	1	− 53 14 20.8	−11.00	− 0.32	1
781	Washington .	9	8 13 2.62	+ 3.581	. .	2	+ 24 29 47.2	−11.00	. .	2
782	3263 Lacaille . .	8	8 13 30.34	+ 2.181	− 0.018	1	− 38 36 41.2	−11.03	+ 0.30	1
783	Anonymous .	8.5	8 13 37.49	+ 1.354	. .	1	− 56 59 46.9	−11.04	. .	1
784	3262 Lacaille . .	7	8 13 42.28	+ 2.316	− 0.005	1	− 34 7 18.9	−11.05	− 0.09	1
785	3269 Lacaille . .	7	8 13 44.22	+ 2.066	+ 0.010	1	− 42 3 30.8	−11.05	+ 0.18	1
786	Anonymous .	9	8 13 54.99	+ 1.354	. .	1	− 57 1 13.6	−11.06	. .	1
787	3278 Lacaille . .	7.5	8 14 6.51	+ 1.462	− 0.033	1	− 55 18 34.0	−11.08	+ 0.07	1
788	3280 Lacaille . .	7.5	8 14 7.51	+ 1.455	− 0.074	1	− 55 25 42.8	−11.08	− 0.90	1
789	3272 Lacaille . .	7	8 14 10.48	+ 2.234	− 0.014	1	− 36 56 51.9	−11.08	− 0.14	1
790	Anonymous .	7	8 14 17.47	+ 2.241	. .	1	− 36 44 0.7	−11.09	. .	1
791	3286 Lacaille . .	8	8 14 24.28	+ 1.274	− 0.015	1	− 58 13 51.6	−11.10	+ 0.22	1
792	16363 H. C. . . .	8.5	8 14 38.08	+ 3.567	. .	1	+ 24 0 44.9	−11.12	. .	1
793	Bessel 344 . .	. .	8 16 1.23	+ 3.575	. .	3	+ 24 25 28.6	−11.22	. .	3
794	Anonymous .	9.5	8 16 4.26	− 0.215	. .	1	− 71 22 17.0	−11.22	. .	1
795	16464 H. C. . . .	9.3	8 16 28.58	+ 3.565	. .	3	+ 24 1 54.2	−11.25	. .	3
796	3303 Lacaille . .	8.5	8 16 31.77	+ 1.408	+ 0.006	1	− 56 23 4.5	−11.25	+ 0.04	1
797	υ^1 Cancri . . .	8	8 17 44.12	+ 3.586	. .	5	+ 25 1 24.2	−11.34	. .	5
798	3306 Lacaille . .	7.5	8 17 49.50	+ 2.053	− 0.028	1	− 42 44 52.7	−11.35	0.00	1
799	3320 Lacaille . .	8.5	8 18 23.94	+ 1.010	− 0.014	1	− 61 54 55.9	−11.39	− 0.05	1
800	3322 Lacaille . .	8	8 19 24.03	+ 1.356	+ 0.016	1	− 57 24 27.2	−11.46	− 0.24	1
801	ε Argus . . .	1.7	8 19 25.89	+ 1.244	. .	48	− 59 1 41.6	−11.46	. .	48
802	Washington .	12	8 19 39.89	+ 3.549	. .	4	+ 24 10 3.4	−11.48	. .	4
803	υ^2 Cancri . . .	6.5*	8 19 42.59	+ 3.574	. .	5	+ 24 38 18.8	−11.48	. .	5
804	Washington .	12.5	8 19 42.61	+ 3.567	. .	3	+ 24 20 5.9	−11.48	. .	3
805	2835 B. A. C. . .	7	8 20 12.74	− 0.113	+ 0.026	1	− 71 2 9.0	−11.52	+ 0.36	1
806	2837 B. A. C. . .	7	8 20 23.64	− 0.110	+ 0.047	1	− 71 1 33.1	−11.53	+ 0.50	1
807	Anonymous .	8	8 20 27.48	− 0.110	. .	1	− 71 0 59.3	−11.54	. .	1
808	3333 Lacaille . .	8	8 20 31.24	+ 1.608	− 0.036	1	− 53 14 57.9	−11.54	− 0.25	1
809	3324 Lacaille . .	7.5	8 20 47.56	+ 2.199	− 0.016	1	− 38 34 10.3	−11.56	+ 0.18	1
810	Washington .	13	8 20 47.72	+ 3.560	. .	2	+ 24 5 59.1	−11.56	. .	2
811	Anonymous .	8	8 20 48.20	+ 2.199	. .	1	− 38 34 16.1	−11.56	. .	1
812	3338 Lacaille . .	6	8 20 54.02	+ 1.520	− 0.045	1	− 54 52 40.7	−11.57	− 0.18	1
813	Anonymous .	9.5	8 21 13.40	+ 1.713	. .	1	− 51 15 . .	−11.59	. .	1
814	3337 Lacaille . .	6.5	8 21 15.22	+ 1.713	+ 0.002	1	− 51 14 17.8	−11.59	+ 0.13	1
815	2845 B. A. C. . .	6	8 21 22.98	+ 1.515	− 0.027	1	− 54 59 4.6	−11.60	− 0.21	1
816	Anonymous .	7	8 21 37.80	+ 1.501	. .	1	− 55 15 36.2	−11.62	. .	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
817	Anonymous .	8.5	8 21 40.64	+ 1.502	. .	1	− 55 14 27.0	−11.62	. .	1
818	Anonymous .	9	8 22 2.20	+ 1.558	. .	2	− 54 18 3.9	−11.65	. .	2
819	3336 Lacaille . .	6	8 22 11.43	+ 2.321	+ 0.004	1	− 34 37 10.5	−11.66	− 0.10	1
820	Anonymous .	10.5	8 22 12.88	+ 2.321	. .	1	− 34 37 40 .	−11.66		
821	2848 B. A. C. . .	6.2	8 22 16.44	+ 1.664	− 0.144	3	− 52 18 54.6	−11.67	− 2.10	3
822	α Chamæleontis .	5.5	8 22 18.37	− 1.438	. .	2	− 76 26 37.1	−11.67	. .	2
823	υ³ Cancri . . .	6*	8 22 38.01	+ 3.569	. .	3	+ 24 34 59.6	−11.69	. .	3
824	2851 B. A. C. . .	7	8 22 48.93	+ 1.672	− 0.074	3	− 52 12 33.8	−11.70	− 0.84	3
825	2042 Brisbane . .	7.5	8 22 58.72	+ 1.530	. .	1	− 54 52 12.5	−11.72	. .	1
826	θ Cancri . . .	6*	8 23 2.52	+ 3.437	. .	2	+ 18 35 50.6	−11.72	. .	1
827	3358 Lacaille . .	7.5	8 23 9.71	+ 1.533	+ 0.008	1	− 54 50 22.7	−11.73	+ 0.10	1
828	Anonymous .	9	8 24 0.22	+ 1.674	. .	1	− 52 15 45.4	−11.79	. .	1
829	β Volantis . .	6	8 24 5.08	+ 0.684	. .	1	− 65 38 12.3	−11.79	. .	1
830	32 Cancri . . .	7*	8 24 7.62	+ 3.566	. .	4	+ 23 35 24.5?	−11.80	. .	2
831	Anonymous .	8	8 24 40.05	+ 1.499	. .	1	− 55 32 34.6	−11.84	. .	1
832	3364 Lacaille . .	7	8 24 47.60	+ 2.282	− 0.004	1	− 36 13 10.5	−11.84	+ 0.02	1
833	3372 Lacaille . .	7	8 25 26.73	+ 2.135	− 0.013	1	− 41 0 44.3	−11.89	+ 0.31	1
834	2873 B. A. C. . .	7	8 25 29.89	+ 1.606	− 0.017	1	− 53 42 43.3	−11.89	− *0.08	1
835	3382 Lacaille . .	7	8 25 50.66	+ 1.761	− 0.006	1	− 50 38 0.5	−11.92	+ 0.10	1
836	3385 Lacaille . .	8	8 26 40.91	+ 2.190	− 0.014	1	− 39 26 48.4	−11.98	+ 0.21	1
837	3392 Lacaille . .	7.5	8 26 49.77	+ 1.933	− 0.003	2	− 46 44 7.0	−11.99	+ 0.03	2
838	Anonymous .	8.5	8 27 5.75	+ 1.620	. .	1	− 53 35 21.0	−12.01	. .	1
839	Anonymous .	8	8 27 12.24	+ 1.931	. .	1	− 46 49 10.6	−12.01	. .	1
840	Washington .	9.5	8 27 24.58	+ 3.548	. .	3	+ 23 58 31.9	−12.03	. .	3
841	3397 Lacaille . .	8.5	8 27 28.09	+ 1.894	− 0.043	1	− 47 45 52.0	−12.03	− 0.88	1
842	3405 Lacaille . .	7	8 27 29.02	+ 1.606	− 0.010	1	− 53 53 7.3	−12.03	− 0.22	1
843	3395 Lacaille . .	7	8 27 43.61	+ 2.241	+ 0.014	1	− 37 51 39.3	−12.05	− 0.24	1
844	3401 Lacaille . .	7	8 27 49.00	+ 1.945	− 0.002	1	− 46 32 0.6	−12.06	− 0.10	1
845	3414 Lacaille . .	7.5	8 27 52.14	+ 1.530	− 0.068	1	− 55 17 31.6	−12.06	+ 0.87	1
846	Washington .	10.7	8 27 55.85	+ 3.538	. .	3	+ 23 34 40.7	−12.07	. .	3
847	Anonymous .	8.5	8 27 59.11	+ 1.530	. .	1	− 55 17 52.6	−12.07	. .	1
848	Anonymous .	7	8 28 2.84	+ 1.995	. .	1	− 45 14 33.5	−12.07	. .	1
849	Bessel 344 . .	9	8 28 7.59	+ 3.542	. .	3	+ 23 46 2.2	−12.08	. .	3
850	3425 Lacaille . .	8	8 28 15.40	+ 1.498	− 0.646	1	− 55 51 44.4	−12.09	+ 0.47	1
851	3417 Lacaille . .	8	8 28 29.92	+ 1.484	− 0.014	1	− 56 7 32.5	−12.11	− 0.08	1
852	Anonymous .	8.5	8 28 36.98	+ 2.244	. .	1	− 37 50 26.4	−12.11	. .	1
853	3413 Lacaille . .	6.5	8 28 37.95	+ 1.951	+ 0.014	1	− 46 27 33.5	−12.11	+ 0.15	1
854	3430 Lacaille . .	7.5	8 28 57.78	+ 1.084	− 0.017	1	− 61 49 46.6	−12.14	+ 0.06	1
855	3412 Lacaille . .	7	8 29 16.48	+ 2.368	− 0.013	1	− 33 30 43.8	−12.16	+ 0.11	1
856	3416 Lacaille . .	8	8 29 17.76	+ 2.276	− 0.037	1	− 36 49 38.8	−12.16	− 0.75	1
857	2900 B. A. C. . .	7	8 29 41.66	+ 2.199	− 0.009	1	− 39 26 23.9	−12.19	+ 1.02	1
858	3408 Lacaille . .	7	8 29 49.54	+ 2.270	+ 0.587	1	− 37 5 50.1	−12.20	+ 0.09	1
859	2903 B. A. C. . .	7	8 30 1.92	+ 1.782	− 0.018	2	− 50 34 42.6	−12.21	+ 0.06	2
860	Washington .	9.8	8 30 4.46	+ 3.531	. .	3	+ 23 24 45.7	−12.21	. .	3
861	C Velorum . .	5.5	8 30 8.62	+ 1.834	− 0.014	1	− 49 25 47.2	−12.22	− 0.06	1
862	3426 Lacaille . .	7.5	8 30 45.93	+ 2.248	− 0.003	1	− 37 56 20.2	−12.26	− 0.37	1
863	3441 Lacaille . .	7	8 31 5.73	+ 1.635	− 0.011	1	− 53 41 22.3	−12.29	− 0.38	1
864	Anonymous .	9	8 31 20.66	+ 1.992	. .	1	− 45 38 37.6	−12.30	. .	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination. Jan. 1, 1860.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
865	Anonymous .	8	8 31 20.97	+ 1.988	. .	1	− 45 44 32.4	−12.30	. .	1
866	E Velorum . .	6.7	8 31 23.31	+ 1.794	. .	3	− 50 27 4.6	−12.31	. .	3
867	Anonymous .	8	8 31 28.57	+ 2.265	. .	1	− 37 23 22.5	−12.31	. .	1
868	3448 Lacaille . .	7.5	8 31 28.59	+ 1.365	+ 0.002	1	− 58 16 34.8	−12.31	+ 0.28	1
869	Washington .	11.3	8 31 33.60	+ 3.526	. .	3	+ 23 16 37.9	−12.32	. .	3
870	3455 Lacaille? . .	8.5	8 31 35.97	+ 1.866	− 0.754	1	− 48 48 48.6	−12.32	− 1.05	1
871	3439 Lacaille . .	7	8 31 53.87	+ 2.200	− 0.032	2	− 39 37 38.8	−12.34	0.00	2
872	3438 Lacaille? . .	7.5	8 31 54.58	+ 1.923	+ 0.269	1	− 47 28 39.5	−12.34	+ 5.58	1
873	3454 Lacaille . .	7	8 32 7.44	+ 1.519	− 0.047	1	− 55 51 22.5	−12.36	− 0.46	1
874	3445 Lacaille? . .	7	8 32 25.75	+ 2.265	+ 0.076	1	− 37 29 6.4	−12.38	− 2.61	1
875	3458 Lacaille . .	7	8 32 25.79	+ 1.501	− 0.003	1	− 56 11 23.3	−12.38	− 0.04	1
876	Anonymous .	10	8 32 28.98	+ 1.866	. .	1	− 48 54 17.7	−12.38	. .	1
877	3455 Lacaille? . .	7	8 32 29.91	+ 1.866	− 0.215	1	− 48 54 12.4	−12.38	− 4.26	1
878	Anonymous .	8	8 32 38.36	+ 2.204	. .	2	− 39 33 26.5	−12.39	. .	2
879	3461 Lacaille . .	8.5	8 32 38.57	+ 1.493	− 0.004	1	− 56 20 59.9	−12.39	0.00	1
880	3447 Lacaille? . .	7	8 32 41.12	+ 1.993	+ 0.188	1	− 45 45 36.0	−12.39	− 2.53	1
881	Anonymous .	9.5	8 32 42.94	+ 1.493	. .	1	− 56 21 32.9	−12.39	. .	1
882	3465 Lacaille . .	8	8 33 30.99	+ 1.271	− 0.015	1	− 59 48 18.0	−12.45	− 0.44	1
883	3457 Lacaille? . .	7.5	8 33 31.80	+ 2.284	− 0.102	1	− 36 56 40.4	−12.45	+ 2.17	1
884	3460 Lacaille . .	7	8 33 46.53	+ 2.216	− 0.009	1	− 39 16 15.4	−12.47	+ 0.01	1
885	Anonymous .	9	8 34 2.01	+ 2.217	. .	1	− 39 15 40.2	−12.49	. .	1
886	3523 Lacaille . .	7.5	8 34 18.68	− 2.025	+ 0.334	1	− 78 24 43.0	−12.51	+ 3.77	1
887	Anonymous .	8.5	8 34 18.95	+ 2.218	. .	1	− 39 14 32.6	−12.51	. .	1
888	Washington .	.	8 34 35.31	+ 3.526	. .	1	+ 23 30 . .	−12.53		
889	γ Cancri . . .	4.5*	8 34 35.94	+ 3.494	. .	2	+ 22 0 13.8	−12.53	. .	1
890	Bessel 344 . .	9.3	8 34 59.70	+ 3.520	. .	2	+ 23 14 56.6	−12.55	. .	2
891	Anonymous .	8	8 35 10.78	+ 1.565	. .	1	− 55 19 50.6	−12.57	. .	1
892	3473 Lacaille . .	7.7	8 35 10.79	+ 1.561	− 0.027	2	− 55 24 50.6	−12.57	− 0.05	2
893	3471 Lacaille . .	8	8 35 40.73	+ 2.048	− 0.017	1	− 44 31 37.3	−12.60	+ 0.09	1
894	3490 Lacaille . .	6.5	8 36 1.98	+ 1.288	+ 0.014	1	− 59 47 17.6	−12.62	− 0.02	1
895	3479 Lacaille . .	8	8 36 3.88	+ 1.813	+ 0.008	1	− 50 28 56.8	−12.63	+ 0.33	1
896	δ Cancri . . .	4*	8 36 9.26	+ 3.423	. .	8	+ 18 42 5.9	−12.63	. .	6
897	3494 Lacaille . .	7	8 36 38.53	+ 1.346	+ 0.010	1	− 59 0 54.7	−12.67	− 0.09	1
898	3485 Lacaille . .	7	8 37 6.63	+ 2.336	+ 0.014	1	− 35 24 26.0	−12.70	+ 0.17	1
899	d Carinæ . . .	4	8 37 17.82	+ 1.335	. .	1	− 59 13 38.1	−12.71	. .	1
900	Anonymous .	8	8 37 22.54	+ 2.000	. .	1	− 46 2 35.5	−12.72	. .	1
901	Anonymous .	7.5	8 37 39.26	+ 2.248	. .	1	− 38 35 47.7	−12.73	. .	1
902	3488 Lacaille . .	6.5	8 37 43.48	+ 2.255	+ 0.165	1	− 38 21 28.2	−12.74	+ 5.22	1
903	Anonymous .	8	8 38 2.11	+ 2.015	. .	1	− 45 41 9.5	−12.76	. .	1
904	3493 Lacaille . .	6.5	8 38 22.02	+ 2.260	+ 0.258	1	− 38 14 27.8	−12.78	+ 6.70	1
905	3513 Lacaille . .	7	8 38 24.57	+ 1.588	− 0.028	2	− 55 14 21.0	−12.79	+ 0.01	2
906	ε HYDRÆ . .	3.5*	8 38 49.77	+ 3.197	. .	56	+ 6 57 55.5	−12.81	. .	56
907	3516 Lacaille . .	7.5	8 39 14.53	+ 1.843	+ 0.003	1	− 50 6 36.3	−12.84	+ 0.04	1
908	3517 Lacaille . .	7	8 39 41.16	+ 2.082	− 0.039	1	− 44 0 18.0	−12.87	+ 0.25	1
909	Anonymous .	8.5	8 39 58.27	+ 2.237	. .	1	− 39 12 34.0	−12.89	. .	1
910	3518 Lacaille . .	7	8 40 7.32	+ 2.291	− 0.015	1	− 37 19 55.4	−12.90	− 0.14	1
911	Bessel 344 . .	9.7	8 40 10.76	− 3.501	. .	2	+ 22 45 8.2	−12.90	. .	2
912	Bessel 344 . .	9.5	8 40 15.26	+ 3.502	. .	2	+ 22 47 43.3	−12.91	. .	2

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
913	3519 Lacaille . .	7.5	8 40 15.69	+ 2.211	+ 0.003	1	− 40 4 13.7	−12.91	− 0.08	1
914	3530 Lacaille? . .	7	8 40 24.79	+ 2.037	− 0.430	1	− 45 21 56.1	−12.92	+ 3.04	1
915	3540 Lacaille . .	7	8 40 26.89	+ 1.216	0.000	1	− 61 8 38.6	−12.92	− 0.07	1
916	δ Argus . . .	2	8 40 33.66	+ 1.657	. .	14	− 54 9 39.1	−12.93	. .	14
917	Anonymous .	8	8 40 48.63	+ 2.024	. .	1	− 45 44 53.1	−12.95	. .	1
918	2980 B. A. C. . .	7	8 40 52.06	+ 2.382	− 0.011	2	− 34 4 31.6	−12.95	+ 0.10	2
919	α Velorum . .	5.5	8 40 56.79	+ 2.034	. .	1	− 45 29 42.7	−12.96	. .	1
920	Anonymous .	7	8 41 8.31	+ 2.236	. .	1	− 39 21 39.4	−12.97	. .	1
921	2983 B. A. C. . .	7.5	8 41 10.22	+ 2.153	− 0.064	1	− 42 1 11.6	−12.97	+ 1.32	1
922	3525 Lacaille . .	7.2	8 41 26.27	+ 2.384	− 0.003	2	− 34 3 7.2	−12.99	+ 0.50	2
923	Anonymous .	10	8 41 29.36	+ 2.383	. .	2	− 34 3 35.4	−12.99	. .	2
924	3534 Lacaille? . .	7.5	8 41 46.00	+ 2.241	+ 0.078	1	− 39 15 4.2	−13.01	− 2.65	1
925	3547 Lacaille . .	7.5	8 41 51.47	+ 1.651	− 0.046	1	− 54 24 48.4	−13.02	− 0.96	1
926	3541 Lacaille . .	7	8 41 54.63	+ 2.072	− 0.016	1	− 44 31 32.5	−13.02	+ 0.01	1
927	3538 Lacaille . .	6	8 42 1.32	+ 2.265	+ 0.012	1	− 38 26 31.8	−13.03	− 0.53	1
928	3539 Lacaille . .	6.7	8 42 4.34	+ 2.267	− 0.044	2	− 38 23 29.2	−13.03	+ 0.71	2
929	2992 B. A. C. . .	6	8 42 13.76	+ 2.035	+ 0.105	2	− 45 36 20.7	−13.04	+ 1.79	2
930	Anonymous .	8	8 42 24.44	+ 2.025	. .	1	− 45 54 1.7	−13.05	. .	1
931	2996 B. A. C. . .	7	8 42 44.27	+ 2.162	. .	1	− 41 54 40.0	−13.07	. .	1
932	Anonymous .	6.5	8 43 14.10	+ 2.270	. .	1	− 38 25 1.8	−13.11	. .	1
933	Bessel 278 . .	9	8 43 20.88	+ 3.492	. .	1	+ 22 33 58.3	−13.12	. .	1
934	Anonymous .	8	8 43 30.62	+ 2.242	. .	1	− 39 24 21.6	−13.13	. .	1
935	Bessel 278 . .	9	8 44 8.26	+ 3.491	. .	4	+ 22 34 0.1	−13.17	. .	3
936	3012 B. A. C. . .	6	8 44 12.93	+ 2.268	− 0.018	1	− 38 35 15.1	−13.17	+ 0.15	1
937	3569 Lacaille . .	8	8 44 23.57	+ 1.639	− 0.030	1	− 54 53 40.3	−13.18	− 0.15	1
938	3566 Lacaille . .	6.5	8 44 53.83	+ 2.182	− 0.004	1	− 41 31 54.6	−13.22	+ 0.15	1
939	3564 Lacaille . .	8	8 45 5.19	+ 2.398	− 0.025	1	− 33 51 42.1	−13.23	+ 0.57	1
940	3599 Lacaille . .	7.5	8 45 8.03	− 0.376	− 0.011	1	− 73 45 9.3	−13.23	+ 0.14	1
941	3017 B. A. C. . .	7.5*	8 45 20.03	+ 3.448	. .	1	+ 20 31 52.1	+13.25	. .	1
942	17513 H. C. . . .	9	8 45 20.93	+ 3.495	. .	3	+ 22 52 5.3	−13.25	. .	3
943	17528 H. C. . . .	.	8 45 37.70	+ 3.493	. .	1	+ 22 47 5.5	−13.27	. .	1
944	Bessel 278 . .	8.5	8 45 51.04	+ 3.485	. .	3	+ 22 23 11.0	−13.28	. .	3
945	3575 Lacaille . .	7	8 46 2.25	+ 2.172	− 0.004	1	− 41 56 39.7	−13.29	+ 0.19	1
946	3588 Lacaille . .	7.5	8 46 4.55	+ 0.937	− 0.023	1	− 64 52 25.5	−13.29	+ 0.58	1
947	3579 Lacaille . .	7	8 46 32.06	+ 2.121	− 0.017	1	− 43 35 19.3	−13.32	− 0.36	1
948	Anonymous .	8	8 46 55.36	+ 0.589	. .	1	− 68 6 32.6	−13.35	. .	1
949	Anonymous .	8.5	8 47 16.15	+ 2.210	. .	1	− 40 52 0.4	−13.37	. .	1
950	Anonymous .	10	8 47 16.52	+ 0.579	. .	1	− 68 12 48.4	−13.37	. .	1
951	Bessel 278 . .	8.5	8 47 19.18	+ 3.480	. .	4	+ 22 15 42.3	−13.38	. .	4
952	Bessel 278 . .	.	8 47 25.75	+ 3.477	. .	3	+ 22 9 13.4	−13.38	. .	3
953	3592 Lacaille . .	7	8 47 40.83	+ 1.638	− 0.038	1	− 55 14 45.3	−13.40	− 0.02	1
954	Anonymous .	9.5	8 48 3.26	+ 0.618	. .	1	− 67 57 39.2	−13.42	. .	1
955	3597 Lacaille . .	7	8 48 15.38	+ 1.666	− 0.034	1	− 54 46 36.8	−13.44	− 0.56	1
956	3602 Lacaille . .	7.5	8 48 18.30	+ 1.296	− 0.059	1	− 60 48 18.8	−13.44	+ 0.26	1
957	3598 Lacaille . .	7.5	8 48 19.72	+ 1.618	− 0.012	1	− 55 40 39.2	−13.44	− 0.23	1
958	Anonymous .	8	8 48 31.33	+ 1.294	. .	1	− 60 51 17.4	−13.45	. .	1
959	3590 Lacaille . .	7.5	8 48 33.25	+ 2.187	− 0.008	1	− 41 55 5.3	−13.46	+ 0.20	1
960	Bessel 278 . .	9	8 48 47.55	+ 3.460	. .	2	+ 21 55 25.8	−13.47	. .	2

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
961	Anonymous .	7	8 48 50.08	+ 2.151	. .	1	− 42 55 52.9	−13.47	. .	1
962	ι Ursæ Majoris	3*	8 48 54.76	+ 4.196	. .	2	+ 48 37 34.5	−13.48	. .	2
963	3050 B. A. C. . .	6.5	8 49 4.46	+ 1.600	. .	1	− 56 5 3.3	−13.49	. .	1
964	o^2 Cancri . . .	6*	8 49 12.34	+ 3.358	. .	2	+ 16 9 9.2	−13.50	. .	2
965	3606 Lacaille . .	8	8 49 26.35	+ 1.610	− 0.006	1	− 55 57 8.7	−13.51	+ 0.03	1
966	Anonymous .	9.5	8 49 43.84	+ 0.642	. .	1	− 67 54 5.2	−13.53	. .	1
967	3600 Lacaille . .	8	8 49 45.74	+ 2.414	− 0.009	1	− 33 41 49.7	−13.53	+ 0.12	1
968	α Cancri . . .	4*	8 50 16.76	+ 3.289	. .	8	+ 12 26 4.0	−13.57	. .	8
969	Greenwich 485	.	8 50 18.70	+ 3.465	. .	6	+ 21 44 38.9	−13.57	. .	6
970	Anonymous .	11	8 50 20.77	+ 0.608	. .	1	− 68 13 6.2	−13.57	. .	1
971	3612 Lacaille . .	7.5	8 50 44.13	+ 1.713	− 0.014	1	− 54 7 43.4	−13.60	− 0.49	1
972	Anonymous .	8.5	8 50 50.57	+ 0.620	. .	1	− 68 9 57.1	−13.60	. .	1
973	3614 Lacaille . .	6.5	8 50 56.37	+ 1.701	+ 0.005	1	− 54 23 22.3	−13.61	− 0.03	1
974	Anonymous .	9	8 51 38.69	+ 2.169	. .	2	− 42 41 14.5	−13.66	. .	2
975	Anonymous .	10	8 51 42.07	+ 2.169	. .	1	− 42 40 7.8	−13.66	. .	1
976	3615 Lacaille . .	7.7	8 51 42.09	+ 2.169	− 0.011	2	− 42 40 48.8	−13.66	− 0.12	2
977	Bessel 278 . .	9.5	8 52 6.22	+ 3.468	. .	3	+ 22 2 57.2	−13.67	. .	3
978	3624 Lacaille . .	8	8 52 25.87	+ 1.888	+ 0.036	1	− 50 29 39.9	−13.71	+ 0.03	1
979	Anonymous .	8.5	8 52 28.64	+ 1.886	. .	1	− 50 33 27.4	−13.71	. .	1
980	Anonymous .	7.2	8 52 43.36	+ 1.903	. .	2	− 50 10 17.6	−13.72	. .	2
981	b^1 Carinæ . . .	5.2	8 53 18.27	+ 1.475	. .	4	− 58 39 7.2	−13.76	. .	4
982	2294 Brisbane . .	6.9	8 53 23.20	+ 1.476	. .	4	− 58 38 56.2	−13.77	. .	4
983	Bessel 278 . .	.	8 53 40.35	+ 3.456	. .	3	+ 21 34 35.8	−13.79	. .	3
984	3633 Lacaille? . .	7	8 53 45.81	+ 1.907	+ 0.345	1	− 50 12 32.4	−13.79	− 6.52	1
985	17818 H. C. . . .	.	8 54 7.49	+ 3.466	. .	1	+ 22 6 41.3	−13.81	. .	1
986	Anonymous .	8	8 54 36.19	+ 1.486	. .	3	− 58 36 45.5	−13.84	. .	3
987	3645 Lacaille . .	8	8 54 48.56	+ 1.909	+ 0.273	1	− 50 16 55.3	−13.86	− 5.45	1
988	3084 B. A. C. . .	6	8 54 54.82	+ 2.184	− 0.010	1	− 42 35 23.9	−13.86	+ 0.13	1
989	Anonymous .	10	8 55 0.51	+ 1.884	. .	1	− 50 53 55.6	−13.87	. .	1
990	3650 Lacaille . .	7	8 55 3.48	+ 1.883	− 0.018	1	− 50 55 18.5	−13.87	− 0.13	1
991	Anonymous .	11	8 55 6.05	+ 1.962	. .	1	− 48 58 23.1	−13.88	. .	1
992	3648 Lacaille . .	7.5	8 55 7.04	+ 1.962	+ 0.009	1	− 48 58 28.2	−13.88	− 0.22	1
993	3654 Lacaille . .	7.5	8 55 20.38	+ 1.761	− 0.030	2	− 53 39 6.7	−13.89	− 0.27	2
994	b^2 Carinæ . . .	5.4	8 55 43.41	+ 1.500	. .	6	− 58 30 41.8	−13.91	. .	6
995	3659 Lacaille . .	8.2	8 55 51.99	+ 1.504	+ 0.310	3	− 58 27 22.4	−13.92	+ 0.13	3
996	3092 B. A. C. . .	7	8 55 55.26	+ 1.885	. .	1	− 50 58 3.5	−13.93	. .	1
997	Anonymous .	8.5	8 56 15.20	+ 1.609	. .	1	− 56 42 50.0	−13.95	. .	1
998	Anonymous .	8.5	8 56 17.20	+ 1.600	. .	1	− 56 52 25.2	−13.95	. .	1
999	3665 Lacaille . .	7.5	8 56 17.37	+ 1.761	− 0.077	1	− 53 46 35.3	−13.95	− 1.33	1
1000	3657 Lacaille . .	7	8 56 26.87	+ 2.268	− 0.003	1	− 39 58 2.5	−13.96	− 0.02	1
1001	3663 Lacaille . .	8	8 56 36.63	+ 1.971	− 0.066	1	− 48 59 30.0	−13.97	− 1.89	1
1002	3675 Lacaille . .	8	8 58 4.98	+ 1.738	− 0.009	1	− 54 26 23.4	−14.06	− 0.12	1
1003	Bessel 275 . .	8.5	8 58 9.65	+ 3.440	. .	6	+ 21 6 51.0	−14.07	. .	6
1004	3672 Lacaille . .	7.5	8 58 14.84	+ 1.972	− 0.005	1	− 49 6 21.1	−14.07	− 0.35	1
1005	3678 Lacaille . .	7	8 58 34.10	+ 1.812	− 0.007	2	− 52 57 29.5	−14.09	− 0.03	2
1006	3676 Lacaille . .	7	8 58 56.83	+ 2.059	+ 0.003	1	− 46 50 49.6	−14.12	− 0.12	1
1007	Greenwich 489	.	8 59 8.40	+ 3.448	. .	2	+ 21 36 37.8	−14.13	. .	2
1008	Bessel 278 . .	9.5	8 59 20.54	+ 3.445	. .	3	+ 21 29 48.8	−14.14	. .	3

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1009	κ Cancri	5	8 59 37.16	+ 3.261	. .	3	+ 11 16 4.5	−14.16	. .	2
1010	3681 Lacaille	7	8 59 37.88	+ 2.084	+ 0.022	1	− 46 13 15.7	−14.16	− 0.12	1
1011	α Volantis	3.9	9 0 4.09	+ 0.969	. .	5	− 65 47 53.2	−14.19	. .	6
1012	3693 Lacaille	7	9 0 47.94	+ 1.607	− 0.005	1	− 57 15 19.0	−14.23	+ 0.22	1
1013	Anonymous	7.2	9 1 8.34	+ 2.198	. .	2	− 42 53 56.8	−14.25	. .	2
1014	3705 Lacaille	8	9 1 54.53	+ 1.365	− 0.012	1	− 61 13 40.2	−14.30	+ 0.44	1
1015	3703 Lacaille	6.5	9 2 15.88	+ 1.725	− 0.015	1	− 55 12 1.0	−14.32	− 0.13	1
1016	λ Argus	2.6	9 2 28.95	+ 2.205	. .	25	− 42 49 45.4	−14.33	. .	25
1017	Bessel 277	9	9 3 12.83	+ 3.430	. .	2	+ 21 2 13.9	−14.38	. .	2
1018	Bessel 277	9.5	9 3 13.47	+ 3.429	. .	2	+ 20 57 51.0	−14.38	. .	2
1018	3708 Lacaille?	7.2	9 3 31.50	+ 1.303	+ 0.259	2	− 62 14 47.3	−14.40	+ 3.26	2
1020	Anonymous	9	9 4 9.26	+ 1.297	. .	1	− 62 23 31.2	−14.44	. .	1
1021	18132 H. C.	9	9 4 9.76	+ 3.434	. .	3	+ 21 17 20.4	−14.44	. .	3
1022	3710 Lacaille	7	9 4 17.19	+ 1.842	+ 0.019	1	− 52 59 10.8	−14.44	− 0.42	1
1023	Bessel 275	9.5	9 4 20.01	+ 3.421	. .	3	+ 20 38 7.2	−14.45	. .	3
1024	Bessel 275	9.7	9 4 21.05	+ 3.421	. .	7	+ 20 39 38.1	−14.45	. .	7
1025	Anonymous	9.5	9 4 29.61	+ 1.308	. .	1	− 62 17 19.2	−14.46	. .	1
1026	3139 B. A. C.	6.7	9 5 11.82	+ 1.912	+ 0.001	2	− 51 28 31.9	−14.50	+ 0.07	2
1027	3745 Lacaille	7.5	9 5 47.38	+ 0.775	− 0.296	1	− 68 8 48.4	−14.54	− 3.37	1
1028	Anonymous	8.5	9 6 21.61	+ 1.917	. .	1	− 51 29 53.3	−14.57	. .	1
1029	3734 Lacaille	7	9 7 2.65	+ 1.838	− 0.030	1	− 53 25 23.6	−14.61	− 0.05	1
1030	Bessel 275	.	9 7 18.84	+ 3.402	. .	2	+ 19 52 0.4	−14.63	. .	2
1031	3740 Lacaille	8	9 7 23.32	+ 1.664	+ 0.008	1	− 57 0 17.6	−14.63	0.00	1
1032	3747 Lacaille	7.7	9 7 25.17	+ 1.467	− 0.021	2	− 60 20 23.2	−14.63	+ 0.34	2
1033	3737 Lacaille	8	9 7 27.30	+ 1.844	− 0.017	1	− 53 20 49.7	−14.64	− 0.07	1
1034	3731 Lacaille	6.5	9 7 31.88	+ 2.358	+ 0.002	1	− 37 59 56.7	−14.64	+ 0.03	1
1035	2799 Rumker	9.5	9 7 33.70	+ 3.417	. .	2	+ 20 41 38.7	−14.64	. .	2
1036	2800 Rumker	.	9 7 36.14	+ 3.413	. .	3	+ 20 28 12.6	−14.64	. .	3
1037	18264 H. C.?	7	9 8 1.49	+ 3.382	. .	1	+ 18 47 . .	−14.67		
1038	Bessel 275	9.7	9 8 7.48	+ 3.401	. .	2	+ 19 52 39.9	−14.68	. .	2
1039	Washington	11	9 8 7.68	+ 3.408	. .	4	+ 20 16 3.3	−14.68	. .	4
1040	3746 Lacaille	7	9 8 23.75	+ 2.044	+ 0.005	1	− 48 28 30.2	−14.69	− 0.34	1
1041	3754 Lacaille	7.5	9 8 41.84	+ 1.850	− 0.032	1	− 53 21 57.6	−14.71	− 0.41	1
1042	K¹ Velorum	7	9 8 58.28	+ 2.389	− 0.010	1	− 36 58 57.0	−14.73	− 0.07	1
1043	3159 B. A. C.?	6	9 9 0.24	+ 1.574	+ 0.002	1	− 58 47 43.2	−14.73	+ 0.18	1
1044	3761 Lacaille	7	9 9 9.62	+ 1.482	− 0.023	2	− 60 17 57.7	−14.74	+ 0.16	2
1045	3757 Lacaille	8	9 9 52.32	+ 2.391	− 0.027	1	− 37 0 27.1	−14.78	− 0.08	1
1046	3769 Lacaille	7	9 10 13.13	+ 1.467	− 0.017	1	− 60 39 35.4	−14.80	+ 0.27	1
1047	Bessel 275	10	9 10 14.96	+ 3.401	. .	3	+ 20 2 52.0	−14.80	. .	2
1048	3770 Lacaille	7.5	9 10 20.47	+ 1.516	− 0.002	2	− 59 54 48.8	−14.81	− 0.16	2
1049	3763 Lacaille	7	9 10 34.57	+ 2.194	− 0.018	1	− 44 16 30.6	−14.82	+ 0.08	1
1050	3766 Lacaille	7.5	9 11 6.33	+ 2.332	− 0.011	1	− 39 29 31.3	−14.85	+ 0.37	1
1051	3771 Lacaille	7	9 11 28.54	+ 2.194	− 0.024	1	− 44 23 11.3	−14.87	+ 0.08	1
1052	β Argus	2	9 11 32.02	+ 0.724	. .	8	− 69 5 58.3	−14.88	. .	7
1053	3772 Lacaille	7	9 11 57.49	+ 2.403	− 0.019	1	− 36 46 19.2	−14.90	+ 0.21	1
1054	3781 Lacaille	8	9 12 4.57	+ 1.975	− 0.007	1	− 50 48 47.0	−14.91	0.00	1
1055	3181 B. A. C.	8	9 12 11.09	+ 3.392	. .	2	+ 19 43 20.1	−14.92	. .	2
1056	3785 Lacaille	7.5	9 12 22.61	+ 1.742	− 0.008	1	− 56 7 26.5	−14.93	+ 0.07	1

Number.	Name of star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1057	3780 Lacaille . .	7.5	9 12 37.27	+ 2.365	− 0.020	1	− 38 24 55.0	−14.94	+ 0.28	1
1058	3789 Lacaille . .	6.5	9 13 4.48	+ 1.853	− 0.017	1	− 53 51 59.8	−14.97	− 0.24	1
1059	ι ARGUS . . .	2	9 13 4.50	+ 1.611	. .	108	− 58 38 50.7	−14.97	. .	106
1060	3794 Lacaille . .	6	9 13 45.43	+ 1.979	− 0.007	1	− 50 55 49.4	−15.01	+ 0.04	1
1061	3797 Lacaille . .	7	9 14 6.03	+ 1.727	+ 0.004	1	− 56 38 34.3	−15.03	+ 0.04	1
1062	3799 Lacaille . .	7	9 14 43.82	+ 1.776	− 0.027	2	− 55 44 3.8	−15.06	− 0.25	2
1063	Anonymous .	7.5	9 15 1.39	+ 2.461	. .	1	− 34 43 19.4	−15.08	. .	1
1064	3198 B. A. C. . .	6*	9 15 10.90	+ 0.886	− 0.010	1	− 68 3 28.6	−15.09	+ 0.13	1
1065	Anonymous .	9	9 15 35.48	+ 2.182	. .	1	− 45 22 6.1	−15.11	. .	1
1066	3801 Lacaille . .	8	9 15 40.83	+ 2.182	+ 0.020	1	− 45 22 19.0	−15.12	− 0.19	1
1067	3805 Lacaille . .	7	9 16 42.84	+ 2.361	− 0.021	1	− 39 8 21.3	−15.18	+ 0.12	1
1068	3208 B. A. C. . .	6.5	9 16 55.82	+ 2.186	+ 0.011	1	− 45 24 33.4	−15.19	− 0.08	1
1069	3814 Lacaille . .	7	9 17 15.84	+ 1.767	− 0.027	1	− 56 15 58.0	−15.21	− 0.40	1
1070	3810 Lacaille . .	7	9 17 38.63	+ 2.472	− 0.010	1	− 34 36 22.0	−15.23	− 0.13	1
1071	3825 Lacaille . .	7*	9 18 18.84	+ 1.914	− 0.011	1	− 53 10 46.4	−15.27	+ 0.23	1
1072	3837 Lacaille . .	7	9 19 28.07	+ 1.600	+ 0.028	1	− 59 39 33.4	−15.33	− 0.15	1
1073	3832 Lacaille . .	7.5	9 19 45.37	+ 2.359	− 0.001	1	− 39 40 5.4	−15.35	+ 0.48	1
1074	α HYDRÆ . .	2*	9 20 13.01	+ 2.951	. .	77	− 8 0 40.7	−15.38	. .	100
1075	3230 B. A. C. . .	6	9 20 34.03	+ 2.357	− 0.002	1	− 39 51 14.2	−15.40	+ 0.08	1
1076	3844 Lacaille . .	7	9 20 43.52	+ 1.952	− 0.013	1	− 52 36 5.1	−15.40	− 0.02	1
1077	3855 Lacaille . .	8	9 21 24.11	+ 1.833	− 0.015	1	− 55 26 31.7	−15.44	− 0.05	1
1078	3235 B. A. C. . .	7	9 21 25.05	+ 2.489	− 0.006	1	− 34 21 19.4	−15.44	− 0.03	1
1079	3858 Lacaille . .	7.5	9 21 44.42	+ 1.890	− 0.006	2	− 54 13 31.6	−15.46	− 0.15	2
1080	3853 Lacaille . .	7	9 21 59.90	+ 2.308	− 0.009	1	− 41 55 40.6	−15.48	+ 0.57	1
1081	3848 Lacaille . .	7	9 22 0.38	+ 2.493	− 0.006	1	− 34 15 7.3	−15.48	− 0.13	1
1082	3871 Lacaille . .	7.5	9 23 5.73	+ 2.099	+ 0.013	1	− 48 59 59.5	−15.54	− 0.25	1
1083	λ Leonis . . .	4.5*	9 23 9.01	+ 3.442	. .	1	+ 23 37 35.5	−15.54	. .	1
1084	3247 B. A. C.? . .	7.5	9 23 27.88	+ 1.789	+ 0.139	1	− 56 40 35.5	−15.56	−12.34	1
1085	3875 Lacaille . .	7	9 23 37.33	+ 2.299	− 0.023	1	− 42 32 7.1	−15.57	− 0.36	1
1086	ξ Leonis . . .	6*	9 23 51.44	+ 3.250	. .	3	+ 11 57 40.2	−15.58	. .	3
1087	3886 Lacaille . .	8	9 24 15.59	+ 2.006	+ 0.019	1	− 51 46 10.4	−15.60	− 0.37	1
1088	3887 Lacaille . .	7.5	9 24 26.01	+ 2.074	− 0.003	1	− 49 56 53.0	−15.61	+ 0.25	1
1089	Anonymous .	8.5	9 24 32.02	+ 2.424	. .	1	− 37 42 16.9	−15.62	. .	1
1090	3865 Lacaille? . .	8.5	9 24 43.42	+ 2.423	+ 0.878	1	− 37 45 27.2	−15.63	− 0.39	1
1091	ψ Argus . . .	3.5	9 24 47.60	+ 2.374	. .	1	− 39 48 44.0	−15.63	. .	1
1092	3895 Lacaille . .	7.5	9 24 52.40	+ 1.836	− 0.034	1	− 55 52 54.2	−15.63	+ 0.17	1
1093	3899 Lacaille . .	6.7	9 25 14.68	+ 1.753	− 0.034	2	− 57 38 36.4	−15.66	− 0.07	2
1094	3889 Lacaille . .	6	9 25 17.78	+ 2.486	+ 0.023	1	− 35 2 51.8	−15.66	− 0.05	1
1095	3896 Lacaille . .	8	9 25 58.45	+ 2.415	− 0.021	1	− 38 16 38.4	−15.69	− 0.04	1
1096	3904 Lacaille . .	6.5	9 26 0.96	+ 1.755	− 0.021	1	− 57 42 17.9	−15.70	+ 0.12	1
1097	Anonymous .	10	9 26 2.57	− 2.234	. .	1	− 81 5 14.6	−15.70	. .	1
1098	3267 B. A. C. . .	6.5	9 26 22.48	+ 2.376	− 0.007	1	− 39 59 16.0	−15.72	+ 0.18	1
1099	3902 Lacaille . .	8	9 26 25.52	+ 2.061	− 0.032	1	− 50 35 30.2	−15.72	− 0.29	1
1100	N Velorum . .	4	9 26 39.96	+ 1.825	. .	2	− 56 22 30.0	−15.73	. .	2
1101	Anonymous .	9.5	9 27 2.82	+ 2.414	. .	1	− 38 28 54.7	−15.75	. .	1
1102	3903 Lacaille . .	7	9 27 4.97	+ 2.414	− 0.025	1	− 38 28 5.0	−15.76	+ 0.04	1
1103	Anonymous .	10	9 27 14.18	+ 2.426	. .	1	− 37 59 31.5	−15.76	. .	1
1104	3905 Lacaille . .	7.5	9 27 14.71	+ 2.427	− 0.023	2	− 37 58 36.5	−15.76	− 0.27	2

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1105	3912 Lacaille . .	7.2	9 27 19.13	+ 1.832	− 0.061	2	− 56 19 40.7	−15.77	− 0.66	2
1106	Anonymous .	9.5	9 27 36.76	− 2.085	. .	1	− 80 54 44.5	−15.78	. .	1
1107	3924 Lacaille . .	7.5	9 28 2.16	+ 1.613	− 0.029	1	− 60 34 20.1	−15.81	+ 0.24	1
1108	3921 Lacaille . .	7.5	9 28 12.15	+ 1.833	− 0.038	2	− 56 25 52.9	−15.82	− 0.02	2
1109	3927 Lacaille . .	7	9 28 23.93	+ 1.657	− 0.026	2	− 59 51 34.3	−15.83	− 0.73	2
1110	3915 Lacaille . .	8	9 28 32.10	+ 2.388	− 0.019	1	− 39 48 1.5	−15.83	+ 0.02	1
1111	3930 Lacaille . .	7	9 28 47.92	+ 1.796	− 0.004	1	− 57 17 52.7	−15.85	− 0.24	1
1112	L Velorum . .	5.5*	9 28 57.12	+ 2.076	. .	1	− 50 35 21.7	−15.86	. .	1
1113	3918 Lacaille . .	7	9 28 57.92	+ 2.496	+ 0.005	1	− 35 9 20.9	−15.86	+ 0.02	1
1114	3943 Lacaille . .	6.5	9 29 35.30	+ 1.661	0.000	2	− 59 57 44.3	−15.89	− 0.05	1
1115	*k* Carinæ . . .	4	9 30 5.79	+ 1.741	. .	1	− 58 33 47.2	−15.92	. .	1
1116	M Velorum . .	4.7	9 31 27.62	+ 2.154	. .	4	− 48 41 4.9	−15.99	. .	4
1117	3965 Lacaille . .	7.5	9 31 28.98	+ 1.393	− 0.006	1	− 64 19 49.0	−15.99	− 0.15	1
1118	3958 Lacaille . .	6.5	9 31 43.40	+ 2.030	− 0.029	1	− 52 16 36.1	−16.00	+ 0.15	1
1119	3960 Lacaille . .	7	9 32 8.16	+ 2.136	− 0.029	1	− 49 19 35.5	−16.02	+ 0.42	1
1120	3973 Lacaille . .	7	9 32 35.65	+ 1.406	+ 0.008	1	− 64 16 43.2	−16.05	+ 0.55	1
1121	3969 Lacaille . .	7	9 33 4.74	+ 1.989	− 0.027	1	− 53 32 38.0	−16.07	+ 0.01	1
1122	*o* Leonis . . .	3.5*	9 33 8.46	+ 3.221	. .	2	+ 10 34 18.4	−16.08	. .	2
1123	3974 Lacaille . .	7	9 33 11.87	+ 1.731	+ 0.003	1	− 59 13 0.7	−16.08	− 0.14	1
1124	Anonymous .	8	9 33 21.62	+ 1.880	. .	1	− 56 11 31.2	−16.09	. .	1
1125	Anonymous .	8	9 33 23.34	+ 1.876	. .	1	− 56 17 8.7	−16.09	. .	1
1126	3980 Lacaille? . .	7	9 34 5.57	+ 1.775	− 0.106	1	− 58 30 0.6	−16.13	+ 1.55	1
1127	Anonymous .	7.5	9 34 24.14	+ 2.144	. .	2	− 49 27 38.2	−16.14	. .	2
1128	3978 Lacaille . .	9	9 34 35.82	+ 2.143	− 0.028	1	− 49 32 10.9	−16.15	− 0.11	1
1129	Anonymous .	10	9 35 23.52	+ 1.780	. .	1	− 58 35 28.6	−16.19	. .	1
1130	Anonymous .	7.5	9 35 24.77	+ 1.780	. .	1	− 58 36 21.5	−16.20	. .	1
1131	3985 Lacaille . .	7	9 36 5.06	+ 2.375	− 0.026	1	− 41 36 6.2	−16.23	+ 0.86	1
1132	3992 Lacaille . .	7	9 36 17.00	+ 1.833	+ 0.008	1	− 56 34 39.9	−16.24	+ 0.06	1
1133	Anonymous .	8	9 36 40.16	+ 1.797	. .	1	− 58 27 27.4	−16.26	. .	1
1134	*ε* LEONIS . . .	3*	9 37 19.68	+ 3.426	. .	38	+ 24 27 43.3	−16.29	. .	38
1135	3996 Lacaille . .	7.5	9 38 8.49	+ 2.447	− 0.023	1	− 38 53 3.4	−16.34	+ 0.14	1
1136	4006 Lacaille . .	7.5	9 39 39.74	+ 2.531	+ 0.013	1	− 35 10 13.9	−16.41	− 0.33	1
1137	4011 Lacaille? . .	8	9 39 53.45	+ 2.299	+ 0.128	1	− 45 13 20.4	−16.42	+ 2.28	1
1138	Anonymous .	10	9 40 22.87	+ 2.301	. .	1	− 45 13 46.0	−16.45	. .	1
1139	3347 B. A. C. . .	7	9 40 23.30	+ 2.301	+ 0.105	1	− 45 13 37.6	−16.45	+ 2.33?	1
1140	Anonymous .	8	9 40 41.13	+ 1.812	. .	1	− 58 47 5.1	−16.46	. .	1
1141	4025 Lacaille . .	7.5	9 41 13.47	+ 2.498	− 0.008	1	− 37 1 47.3	−16.49	− 0.15	1
1142	4035 Lacaille . .	7	9 41 52.54	+ 1.828	− 0.051	1	− 58 39 33.4	−16.52	− 0.35	1
1143	4030 Lacaille . .	7.5	9 42 11.92	+ 2.503	− 0.012	1	− 36 56 25.4	−16.54	− 0.01	1
1144	Anonymous .	8.5	9 42 21.49	+ 2.566	. .	1	− 34 19 29.8	−16.55	. .	1
1145	4031 Lacaille . .	8.5	9 42 21.96	+ 2.566	− 0.004	1	− 34 19 32.1	−16.55	− 0.11	1
1146	4036 Lacaille . .	7	9 43 10.99	+ 2.516	− 0.006	1	− 36 29 25.6	−16.59	− 0.02	1
1147	*υ* Argus . . .	4	9 43 21.04	+ 1.507	. .	8	− 64 22 38.2	−16.59	. .	9
1148	Anonymous .	8.9	9 43 21.85	+ 1.507	. .	8	− 64 22 42.0	−16.60	. .	8
1149	*ν* Chamæleontis .	6	9 46 13.94	+ 0.100	+ 0.019	1	− 76 4 36.4	−16.74	− 0.03	1
1150	4063 Lacaille . .	7.5	9 47 10.45	+ 2.168	− 0.020	1	− 51 0 33.7	−16.78	− 0.19	1
1151	4062 Lacaille . .	7	9 47 20.97	+ 2.369	− 0.028	1	− 43 52 50.5	−16.79	+ 0.11	1
1152	4065 Lacaille . .	7.5	9 48 5.76	+ 2.578	− 0.004	1	− 34 12 1.7	−16.83	− 0.05	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1153	3395 B. A. C.	6.5	9 48 20.38	+ 2.193	. .	1	− 50 26 23.9	−16.84	. .	1
1154	4078 Lacaille?	9	9 49 1.55	+ 1.961	+ 0.012	2	− 56 56 22.8	−16.87	+ 1.06	1
1155	Anonymous	9	9 49 5.87	+ 1.961	. .	1	− 56 56 21.2	−16.87	. .	1
1156	Anonymous	9	9 49 5.87	+ 1.963	. .	1	− 56 54 40.8	−16.87	. .	1
1157	Anonymous	10	9 49 37.61	+ 1.704	. .	1	− 62 14 17.8	−16.90	. .	1
1158	4079 Lacaille	8	9 49 45.18	+ 2.413	− 0.022	1	− 42 28 41.4	−16.90	− 0.21	1
1159	Anonymous	8.2	9 49 57.77	+ 1.965	. .	2	− 57 1 5.3	−16.91	. .	1
1160	ν Leonis	5*	9 50 8.97	+ 3.240	. .	2	+ 13 9 25.9	−16.92	. .	2
1161	Anonymous	10	9 50 29.99	+ 1.714	. .	1	− 62 12 33.1	−16.94	. .	1
1162	Anonymous	9	9 50 39.94	+ 1.695	. .	1	− 62 33 21.9	−16.95	. .	1
1163	3408 B. A. C.	7	9 50 50.65	+ 2.202	. .	1	− 50 37 28.1	−16.95	. .	1
1164	4088 Lacaille	7	9 50 53.98	+ 2.128	− 0.011	1	− 52 54 30.1	−16.96	+ 0.19	1
1165	φ Argus	3.2	9 51 36.12	+ 2.099	. .	5	− 53 51 20.6	−16.99	. .	6
1166	Anonymous	8	9 51 47.61	+ 1.982	. .	1	− 56 56 33.3	−17.00	. .	1
1167	Anonymous	9.5	9 51 49.22	+ 1.715	. .	1	− 62 23 57.6	−17.00	. .	1
1168	π Leonis	5*	9 52 17.01	+ 3.181	. .	1	+ 8 45 41.5	−17.02	. .	1
1169	Anonymous	8.5	9 52 41.06	+ 1.708	. .	1	− 62 39 27.4	−17.04	. .	1
1170	Anonymous	8.5	9 53 11.83	+ 2.387	. .	2	− 44 17 21.2	−17.06	. .	2
1171	4101 Lacaille	7	9 53 27.08	+ 2.389	− 0.020	2	− 44 14 19.1	−17.08	+ 0 21	2
1172	4108 Lacaille	7	9 54 15.44	+ 1.981	+ 0.095	1	− 57 24 38.4	−17.11	− 1.49	1
1173	Anonymous	9	9 54 47.36	+ 2.542	. .	1	− 37 22 15.8	−17.14	. .	1
1174	4107 Lacaille	7.5	9 54 56.90	+ 2.516	− 0.020	1	− 38 43 52.0	−17.14	+ 0.24	1
1175	4110 Lacaille	8	9 55 2.55	+ 2.542	− 0.030	1	− 37 22 41.8	−17.15	− 0.56	1
1176	4121 Lacaille	7.5	9 55 10.20	+ 1.567	+ 0.009	1	− 65 16 54.0	−17.15	− 0.82	1
1177	3433 B. A. C.	7	9 55 59.66	+ 2.075	. .	1	− 55 22 36.5	−17.19	. .	1
1178	4127 Lacaille	7.5	9 56 45.79	+ 2.308	− 0.015	1	− 48 8 22.9	−17.23	− 0.25	1
1179	Anonymous	9	9 57 57.22	+ 2.333	. .	3	− 47 25 54.7	−17.28	. .	3
1180	4135 Lacaille	7	9 58 5.44	+ 2.518	+ 0.005	1	− 39 14 59.8	−17.28	+ 0.12	1
1181	Anonymous	7.5	9 58 30.87	+ 2.329	. .	1	− 47 43 15.4	−17.30	. .	1
1182	Anonymous	8	9 58 45.26	+ 2.102	. .	1	− 55 11 0.3	−17.31	. .	1
1183	4146 Lacaille	7	9 59 5.39	+ 2.395	+ 0.020	1	− 45 10 4.7	−17.33	− 0.07	1
1184	η Leonis	3.5*	9 59 8.87	+ 3.284	. .	2	+ 17 29 28.8	−17.33	. .	2
1185	Anonymous	8.5	9 59 46.37	+ 2.116	. .	1	− 55 2 27.7	−17.36	. .	1
1186	3461 B. A. C.?	5	10 0 15.60	+ 2.365	− 0.445	1	− 46 38 21.7	−17.38	+ 9.59	1
1187	α LEONIS	1.5*	10 0 22.76	+ 3.222	. .	43	+ 12 41 52.4	−17.39	. .	36
1188	4164 Lacaille?	8.5	10 0 32.10	+ 2.159	− 0.429	1	− 53 51 52.3	+17.39	− 7.18	1
1189	2849 Brisbane	6	10 0 41.88	+ 2.346	. .	1	− 47 31 46.7	+17.40	. .	1
1190	4159 Lacaille?	9	10 1 36.96	+ 2.344	+ 0.273	1	− 47 47 34.4	−17.44	− 3.45	1
1191	4164 Lacaille?	8	10 1 42.52	+ 2.170	+ 0.270	1	− 53 49 57.5	−17.44	− 6.00	1
1192	4170 Lacaille	8	10 3 5.32	+ 2.344	− 0.025	1	− 48 7 22.9	−17.50	− 0.18	1
1193	Anonymous	8	10 3 8.61	+ 2.115	. .	1	− 55 42 10.1	−17.51	. .	1
1194	4171 Lacaille	6.7	10 3 11.65	+ 2.358	+ 0.004	2	− 47 34 26.0	−17.51	+ 0.09	2
1195	4173 Lacaille	7.7	10 3 23.52	+ 2.118	+ 0.092	2	− 55 41 6.3	+17.51	− 0.26	2
1196	Anonymous	7.5	10 3 45.11	+ 2.435	. .	1	− 44 27 35.9	−17.53	. .	1
1197	Anonymous	9	10 4 1.50	+ 2.407	. .	1	− 45 44 0.2	−17.54	. .	1
1198	4181 Lacaille?	7.7	10 4 5.44	+ 2.423	− 0.270	2	− 45 3 6.7	−17.55	− 5.25	2
1199	4178 Lacaille	7	10 4 19.66	+ 2.511	+ 0.015	1	− 40 58 25.3	−17.56	− 0.12	1
1200	4182 Lacaille?	7.2	10 4 25.24	+ 2.436	− 0.125	2	− 44 34 21.1	−17.56	+ 2.28	2

Number.	Name of Star*	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1201	3479 B. A. C. . .	7	10 4 26.59	+ 1.701	− 0.005	1	− 64 46 32.9	−17.56	− 0.02	1
1202	4189 Lacaille . .	7	10 4 35.48	+ 1.917	− 0.033	1	− 60 48 59.9	−17.57	+ 0.35	1
1203	4186 Lacaille . .	8	10 5 31.01	+ 2.532	− 0.009	1	− 40 8 12.0	−17.61	− 0.09	1
1204	4198 Lacaille . .	6.5	10 6 41.19	+ 2.277	+ 0.002	1	− 51 25 31.6	−17.65	− 0.05	1
1205	4207 Lacaille . .	7.5	10 6 58.41	+ 1.939	− 0.022	1	− 60 48 9.3	−17.67	+ 0.42	1
1206	Anonymous .	7	10 7 46.34	+ 2.574	. .	1	− 38 21 35.8	−17.70	. .	1
1207	4210 Lacaille? . .	8.5	10 7 49.89	+ 2.579	− 0.301	2	− 38 7 31.8	−17.70	+ 1.33	2
1208	4211 Lacaille? . .	7.5	10 7 50.24	+ 2.479	− 0.318	3	− 43 20 59.9	−17.70	− 6.84	3
1209	2898 Brisbane . .	7.5	10 8 4.38	+ 2.506	. .	1	− 42 3 57.7	−17.71	. .	1
1210	4214 Lacaille . .	7	10 8 6.19	+ 2.255	− 0.017	1	− 52 29 57.4	−17.71	+ 0.11	1
1211	*q* Velorum . .	4.2	10 8 26.80	+ 2.521	. .	2	− 41 22 48.6	−17.73	. .	2
1212	4224 Lacaille . .	7	10 8 28.43	+ 1.948	− 0.019	1	− 60 54 59.8	−17.73	+ 0.05	1
1213	4213 Lacaille . .	6.8	10 8 31.51	+ 2.529	+ 0.007	3	− 40 59 2.3	−17.73	+ 0.14	2
1214	37 Leonis . . .	6*	10 8 37.42	+ 3.233	. .	2	+ 14 28 27.2	−17.73	. .	1
1215	3512 B. A. C. . .	5.5	10 9 14.23	+ 2.505	+ 0.011	1	− 42 21 54.9	−17.76	+ 0.06	1
1216	Anonymous .	8	10 9 30.26	+ 2.265	. .	1	− 52 29 23.9	−17.77	. .	1
1217	4230 Lacaille . .	7	10 9 37.99	+ 2.194	− 0.039	2	− 54 48 18.0	−17.78	− 0.15	2
1218	4223 Lacaille? . .	10	10 9 40.00	+ 2.485	+ 0.202	2	− 43 29 35.0	−17.78	+ 1.55	2
1219	Anonymous .	7.5	10 9 40.09	+ 2.191	. .	2	− 54 54 45.3	−17.78	. .	2
1220	4223 Lacaille? . .	9	10 9 41.42	+ 2.485	+ 0.216	2	− 43 29 36.0	−17.78	+ 1.54	2
1221	Anonymous .	8	10 9 47.96	+ 2.191	. .	2	− 54 56 40.1	−17.78	. .	2
1222	Anonymous .	8	10 9 50.01	+ 2.322	. .	1	− 50 30 40.7	−17.78	. .	1
1223	4231 Lacaille . .	7.5	10 10 2.82	+ 2.285	− 0.007	1	− 51 53 57.6	−17.79	− 0.01	1
1224	Anonymous .	8	10 10 4.66	+ 2.285	. .	1	− 51 54 31.4	−17.79	. .	1
1225	4235 Lacaille . .	7	10 10 26.04	+ 2.201	− 0.037	2	− 54 46 27.1	−17.81	− 0.03	2
1226	4240 Lacaille . .	8	10 10 42.08	+ 1.928	+ 0.006	1	− 61 47 27.8	−17.82	− 0.13	1
1227	4236 Lacaille . .	7	10 10 49.93	+ 2.330	− 0.009	1	− 50 27 27.8	−17.82	+ 0.09	1
1228	40 Leonis . . .	6*	10 11 33.99	+ 3.296	. .	1	+ 20 14 . .	−17.85		
1229	4239 Lacaille . .	9	10 11 39.99	+ 2.570	− 0.026	1	− 39 29 24.4	−17.86	+ 0.62	1
1230	γ Leonis . . .	2*	10 11 41.76	+ 3.301	. .	3	+ 20 35 52.7	−17.86	. .	2
1231	Anonymous .	8	10 12 18.66	+ 2.349	. .	1	− 50 4 28.3	−17.88	. .	1
1232	4247 Lacaille? . .	9.2	10 12 23.24	+ 2.478	+ 0.021	2	− 44 29 34.4	−17.89	+ 1.76	2
1233	4251 Lacaille . .	7	10 13 7.72	+ 2.357	− 0.010	1	− 49 57 57.0	−17.91	+ 0.01	1
1234	4253 Lacaille . .	7	10 13 36.00	+ 2.588	− 0.022	1	− 38 57 3.5	−17.93	+ 0.27	1
1235	4258 Lacaille . .	7	10 13 46.11	+ 2.426	+ 0.005	1	− 47 12 33.6	−17.94	− 0.07	1
1236	42 Leonis . . .	6*	10 13 46.17	+ 3.240	. .	1	+ 15 43 46.6	−17.94	. .	1
1237	4265 Lacaille . .	7	10 14 23.67	+ 2.106	+ 0.005	1	− 58 23 38.2	−17.96	+ 0.36	1
1238	4262 Lacaille . .	7	10 14 27.51	+ 2.535	− 0.001	1	− 42 7 4.0	−17.97	+ 0.18	1
1239	4269 Lacaille? . .	9	10 14 45.71	+ 2.569	− 0.618	1	− 40 20 41.6	−17.98	− 0.63	1
1240	Anonymous .	8	10 14 49.45	+ 2.343	. .	1	− 50 55 5.7	−17.98	. .	1
1241	Anonymous .	8.5	10 15 18.58	+ 2.344	. .	1	− 50 59 40.0	−18.00	. .	1
1242	Anonymous .	9	10 15 20.35	+ 2.221	. .	1	− 55 17.57.2	−18.00	. .	1
1243	T Velorum . .	4.7	10 15 20.60	+ 2.221	. .	2	− 55 17 19.4	−18.00	. .	2
1244	Anonymous .	8	10 15 20.65	+ 2.345	. .	1	− 50 57 37.1	−18.00	. .	1
1245	Anonymous .	9.5	10 15 21.43	+ 2.221	. .	2	− 55 17 22.9	−18.00	. .	2
1246	3547 B. A. C. . .	8	10 15 27.10	+ 2.345	− 0.019	2	− 50 59 13.6	−18.01	− 0.62	2
1247	Anonymous .	7	10 15 26.15	+ 2.142	. .	1	− 57 43 45.3	−18.02	. .	1
1248	4275 Lacaille . .	8	10 16 6.55	+ 2.409	0.000	1	− 48 32 14.4	−18.03	− 0.41	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1249	4288 Lacaille . .	8.2	10 16 43.74	+ 2.541	− 1.181?	2	− 42 20 47.1	−18.05	+ 0.07	2
1250	4282 Lacaille . .	7	10 16 46.46	+ 2.158	− 0.026	2	− 57 30 39.7	−18.06	+ 0.03	2
1251	Anonymous .	10	10 16 53.62	+ 2.159	. .	1	− 57 31 16.0	−18.06	. .	2
1252	4283 Lacaille . .	7	10 17 7.98	+ 2.386	− 0.047	1	− 49 46 16.2	−18.07	+ 0.60	1
1253	4281 Lacaille . .	6.7	10 17 16.22	+ 3.565	− 0.015	2	− 41 11 48.5	−18.07	− 0.19	2
1254	Anonymous .	11	10 18 20.68	+ 2.631	. .	1	− 37 32 16.6	−18.12	. .	1
1255	4287 Lacaille . .	7.5	10 18 21.14	+ 2.631	− 0.015	1	− 37 32 35.2	−18.12	− 0.06	1
1256	L Carinæ . . .	5.5	10 18 31.34	+ 1.777	. .	1	− 66 8 38.7	−18.12	. .	1
1257	3574 B. A. C. . .	6.5	10 19 34.15	+ 2.169	. .	1	− 57 48 59.2	−18.16	. .	1
1258	4299 Lacaille . .	7.5	10 19 53.90	+ 2.510	− 0.023	1	− 44 48 13.9	−18.17	+ 0.21	1
1259	4302 Lacaille . .	6.7	10 20 2.33	+ 2.288	− 0.190	2	− 54 13 46.2	−18.18	+ 2.61	2
1260	Anonymous .	8	10 20 34.35	+ 2.594	. .	1	− 40 23 27.6	−18.20	. .	1
1261	Anonymous .	8	10 20 34.37	+ 2.592	. .	1	− 40 31 53.5	−18.20	. .	1
1262	4301 Lacaille . .	7	10 20 42.47	+ 2.579	− 0.040	1	− 41 17 22.0	−18.20	+ 0.57	1
1263	I Carinæ . . .	4.2	10 21 24.31	+ 1.217	. .	5	− 73 16 9.1	−18.23	. .	5
1264	3587 B. A. C. . .	6.6	10 21 43.60	+ 1.230	− 0.031	5	− 73 12 36.9	−18.24	+ 0.12	5
1265	4308 Lacaille . .	7	10 22 18.09	+ 2.555	− 0.014	1	− 43 4 25.3	−18.26	− 0.03	1
1266	*s* Carinæ . . .	4.2	10 22 23.28	+ 2.189	. .	2	− 57 58 30.8	−18.26	. .	2
1267	4313 Lacaille . .	6.5	10 22 25.49	+ 2.240	− 0.007	2	− 56 26 2.3	−18.27	+ 0.18	2
1268	4315 Lacaille . .	8	10 22 49.66	+ 2.456	− 0.025	1	− 48 13 20.3	−18.28	− 0.35	1
1269	3601 B. A. C. . .	6	10 23 10.11	+ 2.245	. .	1	− 56 28 3.9	−18.29	. .	1
1270	4332 Lacaille . .	6.2	10 24 41.59	+ 2.262	− 0.016	2	− 56 18 33.4	−18.35	+ 0.17	2
1271	Anonymous .	8	10 24 51.71	+ 2.338	. .	1	− 53 42 46.0	−18.35	. .	1
1272	ρ Leonis . . .	4*	10 24 54.50	+ 3.168	. .	1	+ 10 4 34.2	−18.35	. .	1
1273	Anonymous .	8	10 24 57.91	+ 2.351	. .	1	− 53 14 42.7	−18.36	. .	1
1274	Anonymous .	8	10 25 9.32	+ 2.250	. .	1	− 56 49 51.3	−18.36	. .	1
1275	4338 Lacaille . .	7.5	10 25 50.11	+ 2.402	+ 0.004	1	− 51 27 41.2	−18.39	− 0.12	1
1276	Anonymous .	8	10 26 43.37	+ 2.189	. .	1	− 59 4 42.2	−18.42	. .	1
1277	3075 Brisbane . .	7	10 26 57.52	+ 2.190	. .	1	− 59 5 40.9	−18.43	. .	1
1278	Anonymous .	9.5	10 27 11.37	+ 0.367	. .	1	− 78 58 47.9	−18.43	. .	1
1279	Anonymous .	7	10 27 11.80	+ 2.233	. .	1	− 57 53 43.1	−18.43	. .	1
1280	4350 Lacaille . .	6.5	10 27 23.70	+ 2.332	+ 0.003	2	− 54 36 53.2	−18.44	− 0.08	2
1281		7.2	10 27 25.16	+ 2.332		2	− 54 36 30.8	−18.44		2
1282	4347 Lacaille . .	7	10 27 33.53	+ 2.682	− 0.003	1	− 36 36 48.7	−18.45	0.00	1
1283	3082 Brisbane . .	8	10 27 35.31	+ 2.199	. .	1	− 59 0 26.9	−18.45	. .	1
1284	3082 Brisbane . .	8	10 27 42.24	+ 2.200	. .	1	− 58 59 32.7	−18.45	. .	1
1285	3626 B. A. C. . .	6.5	10 27 46.57	+ 2.253	0.000	1	− 57 25 6.1	−18.45	+ 0.27	1
1286	4361 Lacaille . .	6.7	10 28 41.07	+ 2.590	− 0.016	2	− 42 53 29.0	−18.49	− 0.01	2
1287	4359 Lacaille . .	7	10 28 43.73	+ 2.687	− 0.002	1	− 36 35 12.5	−18.49	+ 0.14	1
1288	Anonymous .	9	10 29 5.22	+ 2.344	. .	1	− 54 37 57.7	−18.50	. .	1
1289	Anonymous .	8	10 29 6.18	+ 2.590	. .	1	− 43 0 48.6	−18.50	. .	1
1290	4368 Lacaille . .	7.5	10 29 12.26	+ 2.345	− 0.008	2	− 54 38 0.2	−18.50	− 0.29	2
1291	Anonymous .	9	10 29 19.14	+ 2.277	. .	1	− 57 3 13.4	−18.51	. .	1
1292	Anonymous .	9	10 29 20.04	+ 0.422	. .	1	− 78 59 41.7	−18.51	. .	1
1293	3093 Brisbane . .	6.5	10 29 21.07	+ 2.282	. .	2	− 56 54 9.3	−18.51	. .	2
1294	4369 Lacaille . .	7	10 29 36.14	+ 2.492	− 0.013	1	− 48 27 20.8	−18.52	− 0.16	1
1295	*r* Carinæ . . .	4.5	10 29 50.54	+ 2.290	+ 0.003	1	− 56 46 56.8	−18.52	+ 0.04	1
1296	Anonymous .	8	10 30 0.05	+ 2.272	. .	1	− 57 25 5.3	−18.53	. .	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1297	Anonymous .	7.5	10 30 2.20	+ 2.270	. .	1	− 57 28 10.8	−18.53	. .	1
1298	3636 B. A. C. . .	7	10 30 6.47	+ 2.272	− 0.030	1	− 57 26 54.8	−18.53	− 0.74	1
1299	4372 Lacaille . .	7	10 30 21.29	+ 2.636	− 0.002	1	− 40 33 51.3	−18.54	− 0.19	1
1300	Anonymous .	9	10 30 25.90	+ 2.275	. .	1	− 57 26 21.1	−18.54	. .	1
1301	4436 Lacaille? . .	8	10 30 55.36	− 1.430	− 0.117	1	− 83 34 43.1	−18.56	+ 0.37	1
1302	4379 Lacaille . .	7.5	10 30 56.74	+ 2.382	− 0.029	1	− 53 27 41.8	−18.56	− 0.36	1
1303	*p* Velorum . .	4.5	10 30 59.88	+ 2.520	. .	1	− 47 26 53.6	−18.56	. .	1
1304	Anonymous .	8	10 31 2.18	+ 2.501	. .	1	− 48 28 13.5	−18.56	. .	1
1305	3648 B. A. C. . .	6	10 31 45.25	+ 2.270	− 0.009	1	− 57 57 22.8	−18.59	+ 0.14	1
1306	4385 Lacaille . .	7.2	10 31 54.09	+ 2.511	− 0.011	2	− 48 14 18.7	−18.59	− 0.22	2
1307	4384 Lacaille . .	8.5	10 32 8.59	+ 2.654	+ 0.040	1	− 39 53 28.7	−18.60	+ 0.90	1
1308	Anonymous .	9	10 32 24.83	− 1.216	. .	1	− 83 21 59.3	−18.61	. .	1
1309	Anonymous .	8	10 32 44.46	+ 2.697	. .	1	− 37 1 56.4	−18.62	. .	1
1310	4394 Lacaille . .	7.5	10 33 1.73	+ 2.382	− 0.006	1	− 54 20 4.4	−18.63	− 0.21	1
1311	Anonymous .	7.5	10 33 10.18	+ 2.390	. .	1	− 54 4 55.9	−18.63	. .	1
1312	3657 B. A. C. . .	7	10 33 17.48	+ 2.281	− 0.014	1	− 58 2 16.3	−18.64	+ 0.09	1
1313	Anonymous .	9	10 33 19.41	+ 2.281	. .	1	− 58 2 9.2	−18.64	. .	1
1314	4395 Lacaille . .	8.2	10 33 24.25	+ 2.520	− 0.012	2	− 48 13 1.2	−18.64	− 0.20	2
1315	4403 Lacaille . .	7.2	10 33 26.83	+ 2.363	− 0.040	2	− 55 12 34.6	−18.64	+ 0.03	2
1316	4400 Lacaille . .	7	10 33 39.15	+ 2.516	− 0.012	1	− 48 30 0.5	−18.65	− 0.24	1
1317	4402 Lacaille . .	8	10 34 2.92	+ 2.702	− 0.012	1	− 37 3 8.2	−18.66	− 0.23	1
1318	Anonymous .	9	10 34 57.87	− 1.147	. .	1	− 83 26 40.7	−18.69	. .	1
1319	4413 Lacaille . .	7.7	10 35 12.55	+ 2.589	− 0.018	2	− 44 59 15.3	−18.70	+ 0.17	2
1320	4412 Lacaille . .	8	10 35 15.65	+ 2.068	− 0.019	1	− 39 54 34.6	−18.70	+ 0.01	1
1321	4417 Lacaille . .	7	10 35 28.14	+ 2.376	− 0.027	1	− 55 17 6.3	−18.71	− 0.12	1
1322	4420 Lacaille . .	7	10 35 30.80	+ 2.264	+ 0.002	1	− 59 11 38.3	−18.71	− 0.30	1
1323	Anonymous .	8	10 36 24.44	+ 2.274	. .	1	− 59 7 32.4	−18.74	. .	1
1324	4429 Lacaille . .	7	10 36 38.61	+ 2.539	− 0.014	1	− 48 16 27.0	−18.74	− 0.15	1
1325	4425 Lacaille . .	8.5	10 36 59.90	+ 2.280	+ 0.048	1	− 59 7 22.6	−18.76	− 0.92	1
1326	4442 Lacaille . .	7	10 37 43.65	+ 2.548	− 0.016	1	− 48 6 42.1	−18.78	− 0.17	1
1327	3692 B. A. C. . .	7.2	10 38 10.40	+ 2.302	− 0.150	2	− 58 45 40.2	−18.79	− 1.58	2
1328	Anonymous .	8	10 38 14.46	+ 2.292	. .	1	− 59 5 18.3	−18.79	. .	1
1329	Anonymous .	8	10 38 19.89	+ 2.3[illegible]	. .	1	− 58 47 18.1	−18.80	. .	1
1330	Anonymous .	7.5	10 38 21.67	+ 2.303	. .	1	− 58 47 20.5	−18.80	. .	1
1331	Anonymous .	8.5	10 38 41.10	+ 2.296	. .	1	− 59 5 54.3	−18.81	. .	1
1332	3196 Brisbane . .	7.2	10 38 56.60	+ 2.308	. .	2	− 58 46 42.3	−18.81	. .	2
1333	4454 Lacaille . .	8	10 39 12.01	+ 2.508	− 0.052	1	− 50 43 40.2	−18.82	+ 0.22	1
1334	*η* ARGUS . . .	1	10 39 15.18	+ 2.307	. .	60	− 58 43 49.4	−18.82	. .	55
1335	Argus . . .	10	10 39 17.54	+ 2.308	. .	4	− 58 52 52.0	−18.83	. .	3
1336	Anonymous .	8.5	10 39 21.75	+ 2.509	. .	1	− 50 43 25.6	−18.83	. .	1
1337	3204 Brisbane . .	7.5	10 40 0.78	+ 2.320	. .	2	− 58 42 2.1	−18.85	. .	2
1338	4474 Lacaille? . .	7	10 40 17.03	+ 1.698	− 0.188	1	− 71 39 28.2	−18.86	− 1.53	1
1339	Anonymous .	9.5	10 40 40.60	+ 2.172	. .	1	− 63 15 6.5	−18.87	. .	1
1340	Anonymous .	10	10 40 48.60	+ 2.182	. .	1	− 63 2 51.7	−18.87	. .	1
1341	3706 B. A. C. . .	5	10 41 2.40	+ 2.167	− 0.027	1	− 63 28 30.3	−18.88	+ 0.03	1
1342	4472 Lacaille . .	7	10 41 37.28	+ 2.509	+ 0.002	1	− 51 27 20.8	−18.89	+ 0.04	1
1343	3222 Brisbane . .	9	10 41 40.78	+ 2.175	. .	1	− 63 28 30.7	−18.90	. .	1
1344	4479 Lacaille . .	6.5	10 41 53.47	+ 2.326	+ 0.001	1	− 59 5 5.2	−18.90	+ 0.08	2

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1820.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1345	4484 Lacaille . .	6.2	10 42 14.11	+ 2.328	− 0.007	2	− 59 7 41.9	−18.91	+ 0.15	2
1346	3717 B. A. C. . .	7	10 42 24.11	+ 2.183	− 0.025	2	− 63 26 22.1	−18.92	+ 0.15	1
1347	Anonymous .	8.5	10 42 36.22	+ 2.199	. .	1	− 63 5 21.5	−18.92	. .	1
1348	Anonymous .	8.5	10 43 9.32	+ 2.207	. .	1	− 63 2 29.1	−18.94	. .	1
1349	Anonymous .	8	10 43 9.42	+ 2.344	. .	1	− 58 51 36.9	−18.94	. .	1
1350	Anonymous .	8.5	10 43 10.28	+ 2.531	. .	1	− 50 53 29.5	−18.94	. .	1
1351	4492 Lacaille . .	7	10 43 48.55	+ 2.582	− 0.008	1	− 48 19 10.2	−18.96	− 0.27	1
1352	4494 Lacaille . .	8.5	10 44 36.05	+ 2.546	+ 0.004	1	− 50 37 56.6	−18.98	+ 0.40	1
1353	4497 Lacaille . .	7	10 44 51.53	+ 2.312	− 0.033	1	− 60 28 31.5	−18.99	+ 0.35	1
1354	Anonymous .	8	10 45 31.54	+ 2.354	. .	1	− 59 15 32.1	−19.01	. .	1
1355	4512 Lacaille . .	8.5	10 45 36.77	+ 1.430	+ 0.119	1	− 75 26 35.6	−19.01	+ 1.01	1
1356	4502 Lacaille . .	8	10 45 54.75	+ 2.548	− 0.012	1	− 51 0 17.5	−19.02	+ 0.06	1
1357	Anonymous .	7	10 46 3.91	+ 2.362	. .	1	− 59 9 49.5	−19.02	. .	1
1358	4508 Lacaille . .	7.5	10 47 3.03	+ 2.691	− 0.007	1	− 42 19 9.3	−19.05	+ 0.34	1
1359	3738 B. A. C. . .	7.5	10 47 14.84	+ 2.562	− 0.019	1	− 50 42 7.0	−19.05	+ 0.05	1
1360	4514 Lacaille . .	7	10 47 21.89	+ 2.463	− 0.016	1	− 55 37 25.6	−19.06	− 0.26	1
1361	3746 B. A. C. . .	7	10 47 44.12	+ 1.515	. .	1	− 75 5 15.1	−19.07	. .	1
1362	4518 Lacaille . .	7	10 48 13.67	+ 2.708	− 0.010	1	− 41 27 9.0	−19.08	− 0.12	1
1363	3754 B. A. C. . .	6	10 49 18.54	+ 2.377	+ 0.004	1	− 59 43 17.5	−19.11	+ 0.01	1
1364	4532 Lacaille . .	8	10 50 7.30	+ 2.597	− 0.023	2	− 49 48 20.0	−19.13	+ 0.75	2
1365	4537 Lacaille? . .	8	10 50 32.57	+ 2.771	− 0.635	2	− 37 2 30.9	−19.14	− 0.56	2
1366	4533 Lacaille . .	7	10 50 36.50	+ 2.598	− 0.003	2	− 49 57 51.7	−19.14	− 0.17	2
1367	4538 Lacaille . .	8	10 51 38.27	+ 2.691	− 0.032	1	− 44 8 1.1	−19.17	+ 0.55	1
1368	4542 Lacaille . .	6	10 51 42.17	+ 2.421	− 0.012	1	− 58 55 50.4	−19.17	− 0.11	1
1369	4547 Lacaille . .	7	10 52 39.14	+ 2.563	− 0.071	1	− 52 44 14.6	−19.20	− 0.83	1
1370	Anonymous .	8.5	10 52 42.62	+ 2.674	. .	1	− 45 48 16.3	−19.20	. .	1
1371	4546 Lacaille? . .	7.5	10 52 44.88	+ 2.615	− 0.087	1	− 42 41 56.5	−19.20	+ 1.41	1
1372	δ Leonis . . .	5*	10 52 48.73	+ 3.102	. .	1	+ 4 25 17.8	−19.20	. .	1
1373	3771 B. A. C. . .	6	10 53 12.58	+ 2.393	. .	1	− 60 31 0.4	−19.21	. .	1
1374	4551 Lacaille . .	8	10 53 22.41	+ 2.720	− 0.059	3	− 42 35 7.7	−19.21	− 1.92	2
1375	4553 Lacaille . .	7.5	10 53 25.84	+ 2.722	− 0.019	2	− 42 26 50.9	−19.22	+ 0.05	1
1376	Anonymous .	7.5	10 53 28.54	+ 2.701	. .	1	− 44 6 26.1	−19.22	. .	1
1377	4555 Lacaille . .	7.5	10 53 32.10	+ 2.679	− 0.045	2	− 45 47 50.8	−19.22	− 0.46	2
1378	4557 Lacaille . .	7	10 53 36.49	+ 2.600	− 0.015	1	− 51 0 54.7	−19.22	+ 0.07	1
1379	4561 Lacaille? . .	8	10 54 0.55	+ 2.601	− 0.070	1	− 51 8 37.2	−19.23	− 1.14	1
1380	4559 Lacaille . .	7.5	10 54 12.33	+ 2.649	+ 0.047	1	− 48 12 44.0	−19.24	− 0.31	1
1381	4563 Lacaille . .	7	10 54 17.25	+ 2.601	− 0.013	1	− 51 16 16.5	−19.24	+ 0.09	1
1382	4566 Lacaille . .	7.5	10 55 0.63	+ 2.790	− 0.020	1	− 37 1 40.5	−19.26	− 0.20	1
1383	4567 Lacaille . .	7	10 55 18.18	+ 2.756	− 0.002	1	− 40 18 24.9	−19.26	− 0.06	1
1384	4569 Lacaille . .	7.5	10 55 30.54	+ 2.660	− 0.030	1	− 47 59 36.2	−19.27	− 0.16	1
1385	4574 Lacaille . .	7.5	10 56 33.33	+ 2.466	− 0.014	1	− 58 56 3.6	−19.29	− 0.13	1
1386	4576 Lacaille . .	8	10 57 10.08	+ 2.774	− 0.018	1	− 39 30 3.4	−19.31	+ 0.19	1
1387	χ Leonis . . .	5*	10 57 16.69	+ 3.124	. .	6	+ 8 8 44.5	−19.31	. .	5
1388	Anonymous .	8	10 58 11.42	+ 2.478	. .	1	− 59 3 40.0	−19.33	. .	1
1389	4586 Lacaille . .	7	10 58 13.64	+ 2.685	− 0.005	1	− 47 23 22.1	−19.33	+ 0.07	1
1390	4588 Lacaille . .	7.5	10 58 21.88	+ 2.669	− 0.004	2	− 48 35 2.9	−19.34	− 0.28	2
1391	4592 Lacaille . .	7	10 58 42.56	+ 2.483	− 0.015	1	− 59 3 4.0	−19.34	− 0.16	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1392	4595 Lacaille .	10	10 58 44.96	+ 2.487	. .	1	− 58 54 16.8	−19.34	. .	1
1393		7	10 58 47.11	+ 2.487	− 0.027	1	− 58 54 18.3	−19.35	+ 0.04	1
1394	3796 B. A. C. . .	7	10 58 58.69	+ 2.700	− 0.055	1	− 46 37 25.6	−19.35	+ 0.42	1
1395	4602 Lacaille . .	7	10 59 49.41	+ 2.491	− 0.015	1	− 59 8 28.7	−19.37	− 0.05	1
1396	Anonymous .	8.5	11 0 0.01	+ 2.707	. .	1	− 46 32 52.9	−19.37	. .	1
1397	4607 Lacaille . .	8.5	11 0 49.00	+ 2.809	+ 0.003	2	− 37 35 48.1	−19.39	0.00	2
1398	4602 Lacaille? . .	8	11 0 55.66	+ 2.504	+ 0.642	1	− 59 3 48.2	−19.39	+ 2.77	1
1399	4616 Lacaille . .	7	11 1 37.70	+ 2.803	− 0.018	1	− 38 39 41.7	−19.41	+ 0.10	1
1400	4628 Lacaille . .	7	11 2 46.74	+ 2.769	− 0.020	2	− 42 31 12.3	−19.43	− 0.22	2
1401	4637 Lacaille . .	7	11 3 54.97	+ 2.751	− 0.016	1	− 44 46 14.0	−19.46	+ 0.22	1
1402	4640 Lacaille . .	7	11 4 28 88	+ 2.777	− 0.020	2	− 42 38 44.3	−19.47	− 0.15	2
1403	4645 Lacaille . .	7.5	11 5 26.48	+ 2.855	− 0.009	1	− 34 35 15.0	−19.49	− 0.37	1
1404	4647 Lacaille . .	8.2	11 5 42.10	+ 2.746	− 0.008	2	− 46 9 8.8	−19.50	− 0.17	2
1405	δ Leonis . . .	2.5*	11 6 7.51	+ 3.193	. .	55	+ 21 20 39.6	−19.50	. .	50
1406	4651 Lacaille . .	7	11 6 15.78	+ 2.777	− 0.001	2	− 43 33 25.8	−19.51	− 0.01	2
1407	4653 Lacaille . .	7*	11 6 28.52	+ 2.712	− 0.025	1	− 49 18 25.7	−19.51	+ 0.24	1
1408	Anonymous .	7.5	11 7 3.41	+ 2.788	. .	1	− 42 52 26.6	−19.52	. .	1
1409	4662 Lacaille . .	7	11 7 30.68	+ 2.869	− 0.032	1	− 42 2 10.3	−19.53	+ 0.08	1
1410	4666 Lacaille . .	6.5	11 7 53.59	+ 2.792	− 0.010	1	− 42 55 2.1	−19.54	− 0.04	1
1411	4667 Lacaille . .	7	11 8 1.76	+ 2.832	− 0.025	1	− 38 39 36.9	−19.54	+ 0.05	1
1412	4669 Lacaille . .	8	11 8 25.94	+ 2.844	− 0.011	1	− 37 26 28.0	−19.55	− 0.28	1
1413	4672 Lacaille . .	6	11 8 43.93	+ 2.836	− 0.037	1	− 38 30 50.5	−19.56	+ 0.14	1
1414	4675 Lacaille . .	7	11 8 58.10	+ 2.754	− 0.016	1	− 47 7 14.5	−19.56	− 0.80	1
1415	4676 Lacaille . .	7.5	11 9 3.64	+ 2.762	− 0.006	1	− 46 29 11.9	−19.56	− 0.50	1
1416	4678 Lacaille .	8	11 9 30.32	+ 2.779	− 0.019	1	− 45 3 55.1	−19.57	+ 0.20	1
1417		8	11 9 30.67	+ 2.779		1	− 45 3 55.1	−19.57		1
1418	4680 Lacaille . .	7	11 9 44.29	+ 2.848	− 0.008	1	− 37 34 56.1	−19.58	− 0.11	1
1419	4683 Lacaille . .	6.5	11 10 3.44	+ 2.853	− 0.011	2	− 37 11 48.5	−19.58	− 0.04	2
1420	4685 Lacaille . .	7	11 10 6.08	+ 2.825	+ 0.001	1	− 40 34 24.1	−19.58	− 0.36	1
1421	4686 Lacaille . .	7	11 10 10.04	+ 2.820	− 0.015	1	− 41 7 1.3	−19.58	+ 0.15	1
1422	4690 Lacaille . .	7	11 10 32.23	+ 2.866	− 0.016	1	− 35 42 0.8	−19.59	+ 0.54	1
1423	4696 Lacaille . .	7	11 10 52.41	+ 2.612	− 0.024	1	− 58 17 12.5	−19.60	+ 0.91	1
1424	4694 Lacaille . .	8	11 10 58.00	+ 2.786	− 0.007	1	− 45 16 45.9	−19.60	− 0.08	1
1425	4699 Lacaille . .	7.5	11 11 12.49	+ 2.613	− 0.033	1	− 58 23 21.4	−19.60	− 0.01	1
1426	3519 Brisbane . .	7.5	11 11 18.46	+ 2.614	. .	1	− 58 25 9.3	−19.61	. .	1
1427	δ Crateris . .	3.5*	11 11 50.72	+ 3.003	. .	31	− 13 58 4.6	−19.62	. .	33
1428	σ Leonis . . .	4*	11 13 24.27	+ 3.104	. .	2	+ 6 51 1.1	−19.64	. .	2
1429	4710 Lacaille . .	7.5	11 13 27.77	+ 2.884	+ 0.010	1	− 34 53 49.7	−19.64	− 0.52	1
1430	4718 Lacaille . .	7	11 14 31.76	+ 2.829	− 0.009	1	− 42 44 8.1	−19.66	+ 0.01	1
1431	4719 Lacaille . .	7.5	11 14 40.96	+ 2.781	− 0.016	1	− 47 57 5.3	−19.67	+ 0.04	1
1432	Anonymous .	6.5	11 15 31.72	+ 2.667	. .	2	− 57 33 42.0	−19.68	. .	2
1433	4727 Lacaille . .	7*	11 15 38.00	+ 2.736	− 0.014	1	− 52 32 51.8	−19.68	+ 0.01	1
1434	4730 Lacaille . .	7	11 15 57.15	+ 2.768	+ 0.014	1	− 49 57 54.5	−19.69	+ 0.26	1
1435	3876 B. A. C. . .	8	11 16 4.00	+ 2.672	− 0.131	1	− 57 29 35.3	−19.69	+ 0.60	1
1436	ι Leonis . . .	4*	11 16 6.23	+ 3.123	. .	3	+ 11 21 18.7	−19.69	. .	3
1437	Anonymous .	7.5	11 16 52.81	+ 2.680	. .	1	− 57 26 44.4	−19.70	. .	1
1438	4741 Lacaille . .	8	11 18 16.52	+ 2.849	+ 0.002	1	− 42 37 22.3	−19.72	− 0.33	1
1439	4745 Lacaille . .	7	11 19 12.89	+ 2.853	− 0.011	1	− 42 44 21.4	−19.74	− 0.11	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1440	4746 Lacaille	8	11 19 26.74	+ 2.893	− 0.018	1	− 37 20 0.3	−19.74	− 0.37	1
1441	τ Leonis	5*	11 20 13.29	+ 3.087	. .	1	+ 3 40 56.1	−19.76	. .	1
1442	4750 Lacaille	7.5	11 20 15.06	+ 2.885	− 0.019	1	− 39 3 3.8	−19.76	+ 0.31	1
1443	4753 Lacaille	7	11 20 39.43	+ 2.915	− 0.003	1	− 34 30 13.6	−19.76	− 0.02	1
1444	4755 Lacaille	8	11 21 43.42	+ 2.867	− 0.011	2	− 42 39 13.2	−19.78	− 0.16	2
1445	4766 Lacaille	7	11 23 26.17	+ 2.904	− 0.018	4	− 38 24 32.6	−19.80	+ 0.20	4
1446	4769 Lacaille	8	11 24 19.79	+ 2.863	− 0.007	1	− 45 16 2.4	−19.81	− 0.05	1
1447	Anonymous	9.5	11 24 39.73	+ 2.849	. .	1	− 47 23 38.6	−19.82	. .	1
1448	3923 B. A. C.	5	11 24 54.24	+ 2.737	− 0.063	1	− 58 41 17.2	−19.82	− 1.23	1
1449	4777 Lacaille	6.5	11 25 32.35	+ 2.930	− 0.011	1	− 35 22 45.0	−19.83	− 0.23	1
1450	4787 Lacaille?	10.2	11 26 32.76	+ 2.860	− 0.033	2	− 47 28 7.7	−19.84	+ 1.41	1
1451	4792 Lacaille	7	11 27 51.43	+ 2.942	+ 0.004	1	− 34 46 59.5	−19.86	− 0.01	1
1452	4797 Lacaille	7	11 27 59.04	+ 2.803	− 0.020	1	− 55 17 37.6	−19.86	− 0.31	1
1453	Anonymous	7.	11 28 52.32	+ 2.803	. .	1	− 47 24 2.3	−19.87	. .	1
1454	4806 Lacaille	7	11 29 17.85	+ 2.940	− 0.013	1	− 36 24 28.5	−19.88	− 0.18	1
1455	Anonymous	8.5	11 29 45.81	+ 2.932	. .	1	− 38 38 8.0	−19.88	. .	1
1456	4814 Lacaille?	7	11 30 10.26	+ 2.934	− 0.086	1	− 38 32 4.2	−19.89	+ 1.71	1
1457	Anonymous	8.5	11 30 48.84	+ 2.758	. .	1	− 61 38 19.1	−19.89	. .	1
1458	4821 Lacaille	7	11 30 51.82	+ 2.746	+ 0.012	1	− 62 29 37.0	−19.89	− 0.33	1
1459	4819 Lacaille	7	11 30 53.08	+ 2.903	− 0.005	1	− 44 55 9.6	−19.89	− 0.25	1
1460	4827 Lacaille	7	11 31 13.01	+ 2.752	0.000	1	− 62 22 1.8	−19.90	− 0.18	1
1461	4824 Lacaille	8	11 31 17.59	+ 2.940	− 0.048	1	− 38 25 3.7	−19.90	+ 0.47	1
1462	4829 Lacaille	7	11 31 22.13	+ 2.752	+ 0.023	1	− 62 32 33.2	−19.90	− 0.32	1
1463	4830 Lacaille	7.7	11 31 58.66	+ 2.942	− 0.030	2	− 38 33 11.7	−19.91	+ 0.33	2
1464	Anonymous	6.5	11 32 9.19	+ 2.773	. .	2	− 61 35 32.5	−19.91	. .	2
1465	4836 Lacaille	7.5	11 32 27.55	+ 2.911	− 0.010	1	− 45 8 50.7	−19.91	− 0.16	1
1466	4838 Lacaille	7.2	11 32 33.69	+ 2.913	− 0.020	3	− 44 58 10.5	−19.91	+ 0.23	3
1467	4842 Lacaille	8	11 32 49.87	+ 2.947	− 0.001	1	− 38 18 51.7	−19.92	− 0.31	1
1468	4844 Lacaille	6.5	11 33 13.91	+ 2.784	− 0.008	1	− 61 36 3.8	−19.92	+ 0.18	1
1469	4847 Lacaille	7.5	11 33 41.61	+ 2.943	− 0.005	1	− 40 3 11.7	−19.92	− 0.10	1
1470	4850 Lacaille	7	11 33 46.72	+ 2.856	+ 0.012	1	− 54 44 30.7	−19.93	+ 0.06	1
1471	4854 Lacaille	7.5	11 33 55.09	+ 2.895	− 0.034	1	− 49 21 44.9	−19.93	+ 0.14	1
1472	4852 Lacaille	6	11 33 58.45	+ 2.935	+ 0.005	1	− 42 15 30.8	−19.93	+ 0.07	1
1473	4859 Lacaille	7.5	11 34 28.52	+ 2.896	− 0.035	1	− 49 47 45.4	−19.93	+ 0.34	1
1474	ξ Virginis	5*	11 37 33.24	+ 3.093	. .	2	+ 9 5 29.2	−19.96	. .	1
1475	4877 Lacaille	7	11 37 58.02	+ 2.965	+ 0.011	1	− 39 41 5.5	−19.96	− 0.37	1
1476	ν Virginis	4.5*	11 38 9.00	+ 3.088	. .	2	+ 7 22 9.4	−19.97	. .	2
1477	4882 Lacaille	8	11 38 51.16	+ 2.989	− 0.013	1	− 33 55 11.0	−19.97	+ 0.74	1
1478	Anonymous	9	11 39 40.52	+ 2.986	. .	1	− 36 1 54.6	−19.98	. .	1
1479	β LEONIS.	2*	11 41 24.31	+ 3.101	. .	44	+ 15 24 36.4	−19.99	. .	39
1480	4900 Lacaille	7.5	11 41 34.47	+ 2.942	− 0.070	2	− 50 34 30.8	−19.99	+ 1.77	2
1481	β Virginis	3.5	11 42 53.08	+ 3.076	. .	5	+ 2 36 32.8	−20.00	. .	5
1482	4917 Lacaille	9	11 44 17.25	+ 2.961	+ 0.007	1	− 50 39 9.9	−20.01	+ 0.46	1
1483	4013 B. A. C.	6	11 44 46.98	+ 2.939	− 0.003	1	− 56 9 17.6	−20.01	− 0.02	1
1484	4925 Lacaille	6.5	11 45 42.43	+ 3.012	− 0.022	1	− 35 44 29.2	−20.02	− 0.09	1
1485	4934 Lacaille	8	11 46 58.70	+ 2.958	− 0.014	1	− 56 8 7.8	−20.02	− 0.01	1
1486	4947 Lacaille	8	11 49 38.85	+ 3.031	− 0.004	1	− 34 21 27.5	−20.04	− 0.29	1
1487	4949 Lacaille	8	11 49 48.80	+ 3.004	− 0.020	1	− 48 31 29.2	−20.04	− 0.25	1

Number.	Name of star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1488	Anonymous .	8?	11 50 1.04	+ 2.827	. .	1	− 76 36 55.5	−20.04	. .	1
1489	4039 B. A. C. . .	8	11 50 32.84	+ 3.076	. .	1	+ 4 13 . .	−20.04		
1490	4958 Lacaille . .	7	11 50 41.97	+ 3.014	− 0.035	1	− 47 7 19.6	−20.04	+ 0.86	1
1491	4960 Lacaille . .	7.5	11 50 48.69	+ 2.984	− 0.009	2	− 58 55 12.5	−20.04	− 0.06	2
1492	4968 Lacaille? . .	10	11 51 12.51	+ 2.856	− 0.146	1	− 76 39 45.3	−20.04	+ 1.03	1
1493	3855 Brisbane . .	7	11 51 16.39	+ 2.852	. .	1	− 76 59 30.0	−20.04	. .	1
1494	4965 Lacaille . .	7	11 51 34.55	+ 3.023	+ 0.002	2	− 44 59 48.4	−20.04	− 0.16	2
1495	4964 Lacaille? . .	7.2	11 51 54.12	+ 3.040	+ 0.238	3	− 34 28 25.9	−20.04	+ 5.61	3
1496	π Virginis . .	4.5*	11 53 11.25	+ 3.077	. .	5	+ 7 27 0.9	−20.05	. .	4
1497	4993 Lacaille . .	7	11 56 0.42	+ 3.054	− 0.079	1	− 38 10 20.4	−20.05	+ 0.91	1
1498	4997 Lacaille . .	7	11 56 35.87	+ 3.048	− 0.005	1	− 50 38 12.1	−20.05	− 0.06	1
1499	5001 Lacaille . .	7	11 57 3.86	+ 3.052	− 0.018	1	− 58 25 1.6	−20.05	− 0.01	1
1500	5003 Lacaille . .	6.5	11 57 15.44	+ 3.045	+ 0.009	1	− 60 7 53.0	−20.05	− 0.10	1
1501	5005 Lacaille . .	8	11 57 21.87	+ 3.054	− 0.006	1	− 50 21 23.2	−20.06	+ 0.12	1
1502	ο Virginis . .	4*	11 57 33.98	+ 3.074	. .	1	+ 9 33 56.5	−20.06	. .	1
1503	5013 Lacaille . .	7.2	11 58 15.02	+ 3.065	− 0.002	2	− 34 51 30.7	−20.06	+ 0.01	2
1504	5011 Lacaille? . .	7	11 58 17.22	+ 3.059	+ 0.092	2	− 53 25 22.0	−20.06	− 1.64	2
1505	5016 Lacaille . .	7	11 58 31.02	+ 3.066	0.000	2	− 37 50 22.7	−20.06	− 0.33	1
1506	5018 Lacaille? . .	8	11 58 35.91	+ 3.059	− 0.041	1	− 58 18 35.0	−20.06	− 1.47	1
1507	η Crucis . . .	4.5*	11 59 5.88	+ 3.062	− 0.019	1	− 63 46 35.9	−20.06	− 0.15	1
1508	5029 Lacaille . .	4	12 0 20.39	+ 3.074	− 0.006	1	− 49 49 32.3	−20.06	+ 0.02	1
1509	δ Centauri . .	3*	12 0 36.40	+ 3.076	− 0.008	2	− 49 53 12.5	−20.06	− 0.07	2
1510	5041 Lacaille . .	7.5	12 1 49.91	+ 3.085	− 0.004	1	− 51 18 33.0	−20.06	− 0.20	1
1511	β CHAMÆLEONTIS	5.1	12 9 39.65	+ 3.347	− 0.044	87	− 78 28 44.6	−20.04	− 0.02	84
1512	η Virginis . .	3.5*	12 12 14.07	+ 3.072	. .	1	+ 0 9 . .	−20.03		
1513	c Virginis . .	5*	12 12 44.00	+ 3.067	. .	1	+ 4 8 . .	−20.03		
1514	5104 Lacaille . .	7*	12 12 46.55	+ 3.442	− 0.081	1	− 78 37 . .	−20.03		
1515	4186 B. A. C. . .	6.5	12 18 12.71	+ 3.273	+ 0.004	1	− 62 17 23.4	−19.99	− 0.02	1
1516	α^1 CRUCIS . . .	2	12 18 17.82	+ 3.273	− 0.017	10	− 62 16 1.1	−19.99	+ 0.03	10
1517	α^2 Crucis . . .	3	12 18 18.52	+ 3.273		6	− 62 16 5.0	−19.99		7
1518	γ Crucis . . .	2*	12 22 52.77	+ 3.271	+ 0.003	1	− 56 16 19.2	−19.96	− 0.16	1
1519	Anonymous .	8	12 23 45.43	+ 3.273	. .	1	− 55 27 32.4	−19.95	. .	1
1520	4090 Brisbane . .	7	12 23 52.43	+ 3.273	− 0.155	1	− 55 18 5.1	−19.95	+ 1.95	1
1521	5201 Lacaille . .	7.5	12 25 39.41	+ 3.291	− 0.029	1	− 55 44 33.9	−19.93	− 0.05	1
1522	5202 Lacaille . .	7	12 25 50.36	+ 3.245	− 0.004	1	− 49 4 45.0	−19.93	− 0.12	1
1523	5204 Lacaille . .	7.5	12 25 57.82	+ 3.247	− 0.027	1	− 49 13 54.7	−19.93	− 0.71	1
1524	β CORVI . . .	3	12 26 31.05	+ 3.136	. .	45	− 22 34 0.0	−19.92	. .	42
1525	5210 Lacaille . .	7	12 27 41.74	+ 3.440	− 0.013	1	− 62 20 38.6	−19.91	+ 0.19	1
1526	5214 Lacaille . .	7	12 27 57.67	+ 3.204	− 0.023	1	− 39 2 27.9	−19.91	− 0.01	1
1527	5215 Lacaille . .	7.5	12 28 19.52	+ 3.224	− 0.008	1	− 42 39 38.4	−19.90	− 0.18	1
1528	5240 Lacaille . .	8.5	12 33 1.13	+ 3.285	− 0.052	1	− 47 59 35.0	−19.85	− 0.05	1
1529	γ Centauri . .	2.7	12 33 16.22	+ 3.288	− 0.023	6	− 48 8 7.7	−19.85	− 0.07	4
1530	4265 B. A. C. . .	5	12 33 21.24	+ 3.393	− 0.006	2	− 58 51 41.5	−19.84	0.00	2
1531	γ Virginis . .	2.5*	12 34 3.77	+ 3.074	. .	4	− 0 37 36.3	−19.84	. .	3
1532	5250 Lacaille . .	6.2	12 34 18.77	+ 3.293	− 0.019	2	− 47 59 16.0	−19.83	+ 0.14	2
1533	5252 Lacaille . .	8.5	12 34 26.70	+ 3.223	− 0.011	1	− 37 4 43.2	−19.83	− 1.19	1
1534	5261 Lacaille . .	8	12 35 54.73	+ 3.214	− 0.004	1	− 34 17 43.4	−19.81	− 0.56	1
1535	5270 Lacaille. . .	7	12 37 3.01	+ 3.305	− 0.017	1	− 47 20 58.8	−19.79	− 0.19	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1536	5269 Lacaille . .	9	12 37 3.43	+ 3.358	− 0.018	1	− 53 2 26.2	−19.79	+ 0.19	1
1537	β Muscæ. . .	4.7	12 37 8.37	+ 3.587	− 0.063	4	− 67 17 9.4	−19.79	− 0.02	4
1538	β Crucis . . .	2*	12 38 59.75	+ 3.447	0.000	4	− 58 52 4.9	−19.77	+ 0.02	4
1539	5280 Lacaille . .	7	12 39 58.29	+ 3.564	− 0.005	1	− 64 46 22.8	−19.75	− 0.13	1
1540	5290 Lacaille . .	8	12 41 23.71	+ 3.353	− 0.019	1	− 49 30 16.4	−19.73	+ 0.13	1
1541	5291 Lacaille . .	7.7	12 41 24.65	+ 3.234	− 0.004	2	− 33 58 21.3	−19.73	+ 0.34	2
1542	5292 Lacaille . .	6.5	12 41 54.72	+ 3.338	− 0.012	1	− 47 38 28.0	−19.72	− 0.04	1
1543	Anonymous .	7.5	12 42 1.62	+ 3.377	. .	1	− 51 24 56.0	−19.72	. .	1
1544	5299 Lacaille . .	7.5	12 43 47.82	+ 3.410	0.000	1	− 53 0 47.4	−19.69	+ 0.09	1
1545	5311 Lacaille . .	7	12 44 57.99	+ 3.280	− 0.023	1	− 38 34 28.0	−19.67	+ 0.18	1
1546	5320 Lacaille . .	7	12 46 46.72	+ 3.311	− 0.013	1	− 41 28 31.8	−19.64	− 0.10	1
1547	5328 Lacaille . .	8?	12 48 1.94	+ 3.533	− 0.034	1	− 58 55 45.3	−19.62	− 0.30	1
1548	δ Virginis . .	3*	12 48 3.00	+ 3.052	. .	6	+ 4 12 48.1	−19.62	. .	4
1549	5333 Lacaille? . .	9.5	12 48 54.61	+ 3.371	+ 0.024	1	− 46 36 13.3	−19.60	+ 1.22	1
1550	α^1 Canum Venat.	7*	12 48 58.82	+ 2.842	. .	4	+ 39 7 34.4	−19.60	. .	4
1551	12 CANUM VENAT.	3*	12 49 0.19	+ 2.841	. .	27	+ 39 7 46.6	−19.60	. .	23
1552	Anonymous .	9	12 50 38.16	+ 3.354	. ,	1	− 43 55 . .	−19.57		
1553	5345 Lacaille . .	7.5	12 50 38.88	+ 3.366	+ 0.005	1	− 45 9 2.4	−19.57	+ 0.49	1
1554	5347 Lacaille . .	8	12 50 42.98	+ 3.344	+ 0.006	1	− 42 53 30.6	−19.57	− 0.30	1
1555	Anonymous .	8.5	12 51 9.28	+ 3.331	. .	1	− 41 11 10.7	−19.56	. .	1
1556	Anonymous .	8	12 52 0.65	+ 3.332	. .	1	− 40 50 40.4	−19.54	. .	1
1557	5359 Lacaille . .	8	12 52 46.24	+ 3.367	− 0.020	1	− 43 56 30.7	−19.53	+ 0.05	1
1558	5377 Lacaille . .	8?	12 55 57.27	+ 3.556	− 0.029	1	− 56 14 55.8	−19.46	− 0.24	1
1559	5381 Lacaille . .	8.5	12 56 21.26	+ 3.344	− 0.021	1	− 39 52 31.9	−19.45	− 0.03	1
1560	5395 Lacaille . . .	7.7	12 58 0.52	+ 3.409	− 0.007	2	− 45 13 41.7	−19.42	+ 0.20	2
1561	5393 Lacaille . .	7.5	12 58 35.20	+ 3.868	− 0.017	1	− 66 59 35.5	−19.40	+ 0.18	1
1562	5403 Lacaille . .	8	12 58 41.83	+ 3.294	− 0.046	1	− 33 18 51.8	−19.40	+ 0.29	1
1563	5404 Lacaille . .	8.5	12 59 40.99	+ 3.542	− 0.025	1	− 53 48 42.7	−19,38	0.00	1
1564	41 Comæ . . .	5*	12 59 58.51	+ 2.885	. .	1	+ 28 25 49.9	−19.37	. .	1
1565	5407 Lacaille . .	7	13 0 2.70	+ 3.318	− 0.008	1	− 35 25 19.9	−19.37	− 0.40	1
1566	θ Virginis . .	4.5*	13 2 11.39	+ 3.102	. .	3	− 4 44 13.6	−19.32	. .	2
1567	5411 Lacaille . .	7	13 2 19.05	+ 3.762	+ 0.005	1	− 62 30 10.1	−19.32	+ 0.04	1
1568	5414 Lacaille . .	7	13 2 31.56	+ 3.704	− 0.028	1	− 60 19 4.7	−19.31	− 0.13	1
1569	5419 Lacaille . .	8	13 2 53.79	+ 3.612	− 0.058	1	− 56 9 28.8	−19.31	+ 0.11	1
1570	5421 Lacaille . .	8	13 2 56.54	+ 3.536	+ 0.018	1	− 52 0 46.1	−19.30	+ 0.04	1
1571	5447 Lacaille . .	8.5	13 6 0.07	+ 3.541	− 0.018	1	− 51 0 22.3	−19.23	− 0.22	1
1572	5446 Lacaille . .	7.5	13 6 5.39	+ 3.645	− 0.003	1	− 56 27 43.2	−19.23	− 0.19	1
1573	5457 Lacaille . .	7	13 6 44.72	+ 3.346	− 0.002	1	− 35 34 29.5	−19.21	− 0.14	1
1574	5469 Lacaille . .	8.5	13 8 56.07	+ 3.435	− 0.012	1	− 42 30 21.2	−19.16	− 0.27	1
1575	5474 Lacaille . .	7	13 9 40.17	+ 3.472	− 0.002	1	− 44 58 17.9	−19.14	− 0.23	1
1576	5476 Lacaille . .	7	13 10 18.98	+ 3.823	− 0.007	2	− 61 44 9.9	−19.12	− 0.09	2
1577	ι Centauri . .	3*	13 12 10.96	+ 3.372	. .	2	− 35 55 9.5	−19.07	. .	2
1578	5494 Lacaille . .	7	13 12 43.42	+ 3.459	+ 0.005	1	− 42 50 40.1	−19.06	− 0.15	1
1579	5496 Lacaille . .	8	13 12 47.37	+ 3.412	− 0.009	1	− 39 12 3.9	−19.05	+ 0.22	1
1580	4460 B. A. C. . .	8.5	13 12 52.53	+ 7.893	− 0.049	1	− 85 2 38.0	−19.05	+ 0.07	1
1581	5501 Lacaille . .	7.5	13 13 20.34	+ 3.454	+ 0.004	1	− 42 15 44.0	−19.04	− 0.10	1
1582	α VIRGINIS . .	1*	13 17 17.83	+ 3.153	. .	47	− 10 22 37.9	−18.93	. .	40
1583	κ Octantis . .	6.5	13 17 41.60	+ 8.166	− 0.079	1	− 85 0 40.8	−18.91	− 0.46	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1584	Anonymous .	10	13 19 41.29	+ 7.188	. .	1	− 83 41 3.9	−18.86	. .	1
1585	Anonymous .	8.5	13 20 1.15	+ 4.333	. .	1	− 70 3 52.6	−18.85	. .	1
1586	5770 Lacaille . .	7.5	13 22 34.31	+ 3.492	− 0.007	1	− 41 41 17.0	−18.77	+ 0.09	1
1587	5585 Lacaille . .	8.5	13 25 49.73	+ 3.811	− 0.004	1	− 56 31 9.8	−18.67	− 0.27	1
1588	ζ Virginis . .	3.5*	13 27 3.22	+ 3.071	. .	1	+ 0 10 18.7	−18.63	. .	1
1589	4534 B. A. C. . .	6*	13 27 28.20	+ 4.417	− 0.029	2	− 69 40 31.8	−18.61	+ 0.03	2
1590	5601 or 5602 Lacaille . .	7	13 28 15.76	+ 3.524	− 0.048 − 0.110	1	− 42 0 46.6	−18.59	+ 1.51 − 0.02	1
1591	5609 Lacaille . .	6.5	13 29 44.36	+ 4.110	− 0.027	1	− 63 48 43.1	−18.54	− 0.02	1
1592	*m* Virginis . .	6*	13 33 44.74	+ 3.146	. .	1	− 7 56 41.6	−18.40	. .	1
1593	5642 Lacaille . .	8	13 34 24.66	+ 4.273	− 0.002	1	− 65 58 49.8	−18.38	+ 0.47	1
1594	5658 Lacaille . .	8	13 35 9.08	+ 3.569	+ 0.001	1	− 42 41 0.0	−18.35	− 0.19	1
1595	4573 B. A. C. . .	6.5*	13 36 10.01	+ 4.102	+ 0.038	1	− 62 7 15.8	−18.32	+ 1.80	1
1596	5665 Lacaille . .	7.5	13 36 47.65	+ 3.458	+ 0.008	1	− 35 10 5.6	−18.29	− 0.14	1
1597	5669 Lacaille . .	7	13 38 1.62	+ 3.895	+ 0.010	1	− 56 1 16.4	−18.25	− 0.19	1
1598	η URSÆ MAJORIS	2*	13 41 37.39	+ 2.387	. .	11	+ 50 3 53.5	−18.12	. .	10
1599	5698 Lacaille . .	8	13 43 26.06	+ 4.392	+ 0.047	2	− 66 9 31.7	−18.05	+ 0.49	2
1600	Anonymous .	9	13 43 28.65	+ 4.392	. .	1	− 66 9 14.0	−18.05	. .	1
1601	5715 Lacaille . .	8.5	13 45 9.23	+ 4.168	+ 0.002	1	− 61 37 6.8	−17.98	− 0.21	1
1602	4633 B. A. C. . .	6.5	13 45 13.77	+ 5.825	− 0.049	1	− 77 51 4.4	−17.98	+ 0.62	1
1603	5734 Lacaille . .	6.5	13 46 45.04	+ 4.183	− 0.018	1	− 61 36 23.5	−17.92	+ 5.06	1
1604	η BOOTIS . . .	3*	13 47 32.48	+ 2.862	. .	40	+ 19 9 4.8	−17.89	. .	26
1605	Anonymous .	11.5	13 50 34.76	+ 6.021	. .	1	− 78 7 16.6	−17.77	. .	1
1606	β CENTAURI . .	1*	13 53 17.27	+ 4.155	. .	46	− 59 38 45.9	−17.66	. .	37
1607	5798 Lacaille . .	7	13 55 11.52	+ 3.549	− 0.004	1	− 36 32 18.8	−17.58	− 0.17	1
1608	4695 B. A. C. . .	7	13 59 57.95	+ 3.950	− 0.028	1	− 52 43 12.3	−17.37	+ 0.01	1
1609	5834 Lacaille . .	8	14 2 13.64	+ 4.144	− 0.027	1	− 57 36 33.8	−17.27	+ 0.26	1
1610	5854 Lacaille . .	7.5	14 4 29. 2	+ 3.836	− 0.012	1	− 47 52 17.7	−17.17	+ 0.37	1
1611	κ Virginis . .	4.5*	14 4 54.17	+ 3.189	. .	4	− 9 34 22.9	−17.15	. .	1
1612	Virginis . .	4*	14 8 9.41	+ 3.137	. .	2	− 5 16 58.7	−17.00	. .	2
1613	α BOOTIS . . .	1*	14 8 49.23	+ 2.813	. .	37	+ 19 57 55.1	−16.97	. .	26
1614	5887 Lacaille? . .	6	14 10 45.69	+ 3.730	+ 0.072	1	− 42 21 56.1	−16.88	+ 1.68	1
1615	λ Virginis . .	4.5*	14 11 0.12	+ 3.235	. .	3	− 12 40 39.3	−16.87	. .	2
1616	4782 B. A. C. . .	6*	14 18 49.79	+ 4.869	. .	3	− 67 2 26.1	−16.49	. .	3
1617	4796 B. A. C. . .	8	14 21 21.32	+ 4.889	+ 0.008	1	− 66 56 54.7	−16.36	+ 0.30	1
1618	Anonymous .	8.5	14 22 21.83	+ 4.897	. .	1	− 66 54 37.4	−16.31	. .	1
1619	α^1 Centauri . .	4*	14 29 26.65	+ 4.489	. .	46	− 60 12 48.6	−15.94	. .	44
1620	α^2 CENTAURI . .	1*	14 29 27.54	+ 4.489	. .	58	− 60 12 46.2	−15.94	. .	56
1621	μ Virginis . .	4*	14 35 9.80	+ 3.146	. .	1	− 5 0 . .	−15.63	. .	.
1622	ε BOOTIS . .	2	14 38 26.16	+ 2.624	. .	37	+ 27 42 32.7	−15.45	. .	25
1623	4883 B. A. C. . .	6.5	14 39 11.59	+ 9.509	. .	1	− 82 25 36.1	−15.41	. .	1
1624	6096 Lacaille . .	7	14 39 56.10	+ 4.271	+ 0.010	1	− 54 22 55.1	−15.37	− 0.29	1
1625	α^2 LIBRÆ . . .	2.5*	14 42 35.31	+ 3.312	. .	27	− 15 24 55.4	−15.22	. .	24
1626	6152 Lacaille . .	7	14 47 17.60	+ 3.674	− 0.057	1	− 34 1 8.7	−14.95	− 0.76	1
1627	ξ^2 Libræ . . .	6*	14 48 38.27	+ 3.243	. .	1	− 10 48 4.1	−14.87	. .	1
1628	β Lupi . . .	3	14 48 43.83	+ 3.895	. .	1	− 42 31 33.2	−14.86	. .	1
1629	η Circini . . .	6*	14 52 19.49	+ 4.899	. .	5	− 63 26 13.5	−14.65	. .	5
1630	δ Libræ . . .	5*	14 52 57.78	+ 3.200	. .	1	− 7 55 14.3	−14.61	. .	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Preces-sion.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1631	6202 Lacaille . .	7	14 55 52.07	+ 4.493	+ 0.019	1	– 56 51 7.5	–14.44	– 0.66	1
1632	4977 B. A. C. . .	6	15 0 7.43	+ 4.411	– 0.024	5	– 54 46 10.7	–14.17	– 0.09	5
1633	6261 Lacaille . .	7	15 3 14.00	+ 3.793	– 0.011	1	– 36 57 12.9	–13.98	– 0.23	1
1634	γ Tri. Aust. . .	2.7	15 4 59.52	+ 5.477	. .	3	– 68 7 8.3	–13.87	. .	2
1635	β LIBRÆ . . .	2*	15 8 56.50	+ 3.224	. .	30	– 8 49 34.5	–13.62	. .	32
1636	6320 Lacaille . . .	7	15 11 23.89	+ 4.042	– 0.015	1	– 44 23 29.5	–13.46	+ 0.04	1
1637	5083 B. A. C. . .	6*	15 17 58.42	+ 4.830	. .	2	– 59 57 52.8	–13.03	. .	2
1638	5088 B. A. C. . .	7	15 19 35.47	+ 7.648	– 0.070	1	– 77 24 6.6	–12.92	– 0.10	1
1639	ζ^1 Libræ . . .	4*	15 19 48.46	+ 3.369	. .	2	– 16 11 24.5	–12.90	. .	2
1640	6401 Lacaille . .	7*	15 25 18.79	+ 6.146	+ 0.042	1	– 71 14 42.4	–12.53	– 1.50	1
1641	γ Libræ . . .	4.5*	15 27 8.33	+ 3.339	. .	4	– 14 17 7.0	–12.41	. .	4
1642	α COR. BOREALIS	2*	15 28 20.27	+ 2.530	. .	27	+ 27 13 20.7	–12.32	. .	23
1643	6503 Lacaille . .	7.5	15 35 31.29	+ 3.817	– 0.004	1	– 34 37 23.9	–11.82	– 0.14	1
1644	η Libræ . . .	6	15 35 38.53	+ 3.365	. .	8	– 15 11 26.7	–11.81	. .	6
1645	α SERPENTIS . .	2.5*	15 36 52.94	+ 2.941	. .	31	+ 6 44 3.0	–11.73	. .	29
1646	6550 Lacaille . .	6.5	15 43 30.74	+ 4.991	+ 0.016	1	– 60 1 41.4	–11.25	– 0.01	1
1647	λ Tri. Aust. . .	6*	15 45 15.63	+ 5.414	. .	6	– 64 35 40.7	–11.12	. .	6
1648	θ Libræ . . .	5	15 45 17.48	+ 3.397	. .	6	– 16 17 5.9	–11.12	. .	3
1649	6564 Lacaille . .	7	15 46 9.18	+ 5.402	– 0.024	1	– 64 24 51.3	–11.06	+ 0.31	1
1650	Anonymous .	7.5	15 46 26.29	+ 5.205	. .	1	– 62 22 23.5	–11.04	. .	1
1651	δ Scorpii . . .	2.5*	15 51 28.26	+ 3.534	. .	1	– 22 11 24.0	–10.67	. .	1
1652	β^1 SCORPII . .	2*	15 56 43.36	+ 3.476	. .	43	– 19 23 25.7	–10.27	. .	41
1653	β^2 Scorpii . . .	5.5*	15 56 43.79	+ 3.476	. .	3	– 19 23 10.1	–10.27	. .	3
1654	δ OPHIUCHI . .	3*	16 6 29.35	+ 3.140	. .	50	– 3 18 15.4	– 9.53	. .	49
1655	6810 Lacaille . .	6.5	16 13 52.49	+ 4.035	– 0.012	1	– 38 50 13.6	– 8.96	– 0.17	1
1656	ψ Ophiuchi . .	5*	16 15 20.05	+ 3.501	. .	2	– 19 40 54.3	– 8.84	. .	2
1657	χ Ophiuchi . .	6*	16 18 20.24	+ 3.467	. .	1	– 18 7 . .	– 8.61		
1658	α^1 Scorpii . . .	.	16 20 12.88	+ 3.666	. .	1	– 26 5 44.1	– 8.46	. .	1
1659	α SCORPII . .	1.5*	16 20 13.10	+ 3.666	. .	90	– 26 5 39.3	– 8.46	. .	93
1660	φ Ophiuchi . .	5*	16 22 33.55	+ 3.428	. .	4	– 16 16 52.8	– 8.27	. .	1
1661	ω Ophiuchi . .	5*	16 23 15.00	+ 3.544	. .	1	– 21 8 . .	– 8.22		
1662	6898 Lacaille . .	7.5	16 28 19.34	+ 4.535	– 0.010	1	– 49 54 22.0	– 7.81	– 0.06	1
1663	α TRI. AUST. .	1.8	16 32 50.01	+ 6.263	. .	137	– 68 44 35.0	– 7.45	. .	145
1664	5579 B. A. C. . .	5.5	16 32 54.25	+ 3.462	. .	6	– 17 26 50.7	– 7.44	. .	4
1665	6932 Lacaille . .	7	16 34 23.73	+ 5.176	+ 0.002	1	– 59 23 9.3	– 7.32	– 0.22	1
1666	6978 Lacaille . .	7.5	16 38 50.92	+ 4.636	– 0.017	1	– 51 16 38.9	– 6.95	– 0.50	1
1667	5645 B. A. C. . .	6	16 42 43 77	+ 5.385	+ 0.057	2	– 61 23 11.2	– 6.63	– 0.43	2
1668*	6997 Lacaille . .	7	16 43?40.78	+ 5.188	– 0.008 + 0.592	1	– 59 9 43.3	– 6.56	– 0.12	1
1669	7048 Lacaille . .	7	16 47 55.89	+ 5.033	– 0.011	1	– 57 2 53.1	– 6.20	– 0.42	1
1670	5719 B. A. C. . .	7	16 52 38.78	+ 5.884	– 0.162	4	– 65 31 44.7	– 5.81	+ 1.51	4
1671	7097 Lacaille . .	7	16 53 46.75	+ 4.271	– 0.038	1	– 43 5 0.8	– 5.71	– 1.45	1
1672*	7103 Lacaille . .	7	16 58? 16.47	+ 6.024	– 0.025 + 0.575	1	– 66 24 36.6	– 5.34	+ 0.19	1
1673	Anonymous .	9	16 58 36.27	+ 6.025	. .	1	– 66 24 36.7	– 5.31	. .	1
1674	7149 Lacaille . .	7	17 0 15.01	+ 4.541	+ 0.012	1	– 48 40 41.4	– 5.17	– 0.06	1
1675	5773 B. A. C. . .	6*	17 0 17.25	+ 5.558	– 0.011	1	– 62 32 36.3	– 5.17	+ 0.21	1
1676	η Scorpii . . .	3	17 1 25.25	+ 4.280	. .	2	– 43 2 6.7	– 5.07	. .	2

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1. 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	"		° ′ "	"	"	
1677	η Ophiuchi	2.5*	17 1 46.80	+ 3.432	. .	39	− 15 32 3.7	− 5.04	. .	38
1678	7146 Lacaille	7	17 3 36.22	+ 6.612	0.000	1	− 69 52 57.7	− 4.89	− 0.69	1
1679	α HERCULIS	3.5*	17 7 48.54	+ 2.734	. .	37	+ 14 33 55.2	− 4.53	. .	34
1680	ξ Ophiuchi	5*	17 12 1.11	+ 3.573	. .	4	− 20 56 48.8	− 4.17	. .	1
1681	γ Aræ	3*	17 12 46.93	+ 5.029	. .	3	− 56 13 42.2	− 4.10	. .	2
1682	θ Ophiuchi	3.5*	17 12 48.10	+ 3.678	. .	2	− 24 50 40.0	− 4.10	. .	2
1683	β Aræ	3*	17 12 50.70	+ 4.968	. .	38	− 55 22 49.3	− 4.10	. .	37
1684	7249 Lacaille	7	17 13 45.80	+ 4.431	+ 0.022	1	− 46 3 15.1	− 4.02	− 0.24	1
1685	Anonymous	7.5	17 15 40.78	+ 5.992	. .	1	− 60 30 11.2	− 3.85	. .	1
1686	7264 Lacaille	7.5	17 16 10.97	+ 4.871	+ 0.011	1	− 53 53 7.0	− 3.81	+ 0.09	1
1687	5872 B. A. C.	6	17 16 14.48	+ 4.949	− 0.014	3	− 55 1 59.2	− 3.81	− 0.24	3
1688	δ Aræ	4.2	17 17 34.32	+ 5.400	. .	7	− 60 33 0.7	− 3.69	. .	7
1689	ρ Herculis	4*	17 18 30.25	+ 2.071	. .	1	+ 37 17 . .	− 3.61		
1690	7281 Lacaille	7	17 18 38.72	+ 5.082	+ 0.003	1	− 56 47 38.0	− 3.60	− 0.15	1
1691	α Aræ	3*	17 20 15.40	+ 4.628	. .	36	− 49 44 59.2	− 3.46	. .	35
1692	7314 Lacaille	7	17 21 49.57	+ 4.799	− 0.003	1	− 52 38 20.3	− 3.33	− 0.05	1
1693	c^2 Ophiuchi	5*	17 22 16.05	+ 3.655	. .	1	− 23 50 30.5	− 3.29	. .	1
1694	5926 B. A. C.	6.2	17 24 56.86	+ 6.303	+ 0.041	3	− 67 45 16.5	− 3.06	+ 0.14	3
1695	5927 B. A. C.	.	17 25 14.40	+ 2.270	. .	1	+ 31 16 . .	− 3.03		
1696	β DRACONIS	2.5*	17 27 2.79	+ 1.353	. .	2	+ 52 24 47.9	− 2.87	. .	1
1697	α OPHIUCHI	2*	17 27 58.37	+ 2.774	. .	59	+ 12 40 23.0	− 2.79	. .	54
1698	5945 B. A. C.?	10	17 28 7.30	+ 4.872	− 0.210	1	− 53 39 21.0	− 2.78	− 1.77	1
1699	ξ Serpentis	3.5*	17 28 59.99	+ 3.434	. .	1	− 15 18 . .	− 2.70		
1700	σ OCTANTIS	5.5	17 30 2.68	+ 107.542	. .	89	− 89 16 22.6	− 2.61	. .	88
1701	5962 B. A. C.	6*	17 30 53.99	+ 2.279	. .	1	+ 30 53 . .	− 2.54		
1702	Anonymous	8	17 32 17.91	+ 4.875	. .	1	− 53 38 29.4	− 2.42	. .	1
1703	ο Serpentis	4	17 32 59.25	+ 3.373	. .	3	− 12 47 24.1	− 2.36	. .	3
1704	ι Herculis	3.5*	17 35 13.37	+ 1.692	. .	1	+ 46 5 . .	− 2.16		
1705	β Ophiuchi	3*	17 36 3.88	+ 2.964	. .	19	+ 4 38 3.1	− 2.09	. .	17
1706	6007 B. A. C.	6	17 38 6.31	+ 5.387	. .	3	− 60 6 26.4	− 1.91	. .	3
1707	Anonymous	9	17 38 46.31	+ 4.004	. .	1	− 34 59 51.8	− 1.86	. .	1
1708	7445 Lacaille	7.5	17 40 23.96	+ 4.757	− 0.037	1	− 51 39 56.0	− 1.71	+ 0.21	1
1709	μ Herculis	4*	17 40 35.20	+ 2.370	. .	1	+ 27 49 . .	− 1.70		
1710	6022 B. A. C,	6	17 40 39.37	+ 4.430	+ 0.028	3	− 45 32 58.1	− 1.69	0.00	3
1711	Anonymous	7.5	17 42 25.67	+ 8.284	. .	1	− 75 39 9.1	− 1.54	. .	1
1712	7457 Lacaille	7*	17 46 15.32	+ 7.420	− 0.012	1	− 72 56 4.6	− 1.20	− 0.09	1
1713	6057 B. A. C.	7	17 46 27.74	+ 3.920	− 0.006	3	− 32 26 36.7	− 1.18	− 0.18	2
1714	6062 B. A. C.	5.5*	17 47 11.66	+ 1.952	. .	1	+ 40 1 . .	− 1.12		
1715	7496 Lacaille	7	17 47 55.67	+ 4.809	− 0.051	1	− 52 27 7.9	− 1.06	+ 0.78	1
1716	7509 Lacaille	7.5	17 48 42.22	+ 4.658	− 0.001	1	− 49 53 48.5	− 0.99	− 0.12	1
1717	Anonymous	6	17 48 47.71	+ 7.466	. .	1	− 73 5 34.8	− 0.98	. .	1
1718	γ DRACONIS	2.5*	17 53 7.41	+ 1.391	. .	11	+ 51 30 36.4	− 0.60	. .	11
1719	5739 Lacaille	6	17 55 3.79	+ 4.480	− 0.015	1	− 46 28 40.0	− 0.43	+ 0.23	1
1720	6109 B. A. C.	6*	17 55 38.90	+ 1.711	. .	1	+ 45 31 . .	− 0.38		
1721	6119 B. A. C.	6.5	17 57 9.15	+ 6.870	+ 0.344	1	− 70 36 17.1	− 0.25	+ 3.41	1
1722	Anonymous	8	17 58 58.22	+ 6.849	. .	1	− 70 30 19.3	− 0.09	. .	1
1723	6129 B. A. C.	6*	17 59 13.54	+ 1.563	. .	1	+ 48 27 . .	− 0.07		
1724	7584 Lacaille	7*	18 2 7.64	+ 5.202	+ 0.062	1	− 57 52 54.5	+ 0.19	+ 0.82	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1725	Anonymous .	.	18 2 7.88	+ 5.202	. .	1	− 57 52 57.5	+ 0.19	. .	1
1726	6162 B. A. C. . .	6*	18 2 57.54	+ 1.806	. .	1	+ 43 26 . .	+ 0.26		
1727	7593 Lacaille . .	7	18 3 21.91	+ 5.106	+ 0.011	1	− 56 41 6.8	+ 0.29	− 0.09	1
1728	μ^1 SAGITTARII .	4*	18 4 47.68	+ 3.587	. .	44	− 21 5 34.5	+ 0.42	. .	43
1729	A Herculis . .	5*	18 6 15.00	+ 2.257	. .	1	+ 31 22 . .	+ 0.53		
1730	7633 Lacaille . .	7*	18 7 40.65	+ 5.073	0.000	1	− 56 16 1.2	+ 0.67	− 0.19	1
1731	Anonymous .	7	18 7 45.47	+ 5.745	. .	1	− 63 26 10.7	+ 0.68	. .	1
1732	7649 Lacaille . .	8	18 9 35.61	+ 5.025	− 0.011	1	− 55 37 23.8	+ 0.84	− 0.44	1
1733	Anonymous .	8.5	18 9 35.81	+ 5.025	. .	1	− 55 37 53.7	+ 0.84	. .	1
1734	6218 B. A. C. . .	6*	18 12 21.31	+ 1.917	. .	1	+ 40 52 . .	+ 1.08		
1735	6219 B. A. C. . .	6*	18 12 25.86	+ 5.141	− 0.016	2	− 57 9 47.1	+ 1.09	− 0.06	2
1736	7674 Lacaille . .	7	18 12 56.30	+ 4.647	− 0.003	2	− 49 42 53.7	+ 1.13	− 0.40	2
1737	6230 B. A. C. . .	6.3	18 13 38.12	+ 7.741	+ 0.014	5	− 74 2 46.0	+ 1.19	+ 0.05	5
1738	7548 Lacaille . .	7.5	18 13 52.75	+ 15.125	0.000	1	− 83 40 53.8	+ 1.21	+ 0.08	1
1739	Anonymous .	8.5	18 14 49.55	+ 4.642	. .	1	− 49 38 38.1	+ 1.30	. .	1
1740	7678 Lacaille . .	8	18 17 31.84	+ 7.038	− 0.121	1	− 71 25 4.1	+ 1.53	+ 0.92	1
1741	λ Sagittarii . .	3*	18 18 42.79	+ 3.707	. .	5	− 25 29 57.0	+ 1.64	. .	4
1742	μ Lyræ . . .	5.5*	18 19 17.29	+ 1.977	. .	1	+ 39 25 . .	+ 1.69		
1743	7720 Lacaille . .	6	18 19 50.05	+ 4.675	− 0.043	1	− 50 16 36.7	+ 1.73	− 0.16	1
1744	Anonymous .	7	18 20 13.81	+ 4.591	. .	1	− 48 45 42.3	+ 1.77	. .	1
1745	6276 B. A. C. . .	6*	18 20 19.47	+ 5.271	− 0.021	2	− 58 48 7.7	+ 1.78	− 0.29	1
1746	6291 B. A. C. . .	6.7	18 22 26.86	+ 4.837	− 0.014	6	− 52 59 35.1	+ 1.96	+ 0.10	5
1747	7750 Lacaille . .	7	18 22 57.46	+ 4.705	− 0.014	1	− 50 49 34.6	+ 2.01	− 0.28	1
1748	Anonymous .	8	18 25 31.60	+ 2.182	. .	1	+ 33 49 . .	+ 2.23		
1749	7770 Lacaille . .	7	18 26 10.96	+ 4.506	− 0.038	2	− 47 11 22.8	+ 2.29	+ 0.17	2
1750	6349 B. A. C. . .	7*	18 30 20.24	+ 2.008	. .	1	+ 38 46 . .	+ 2.65		
1751	7814 Lacaille . .	7.5	18 31 15.23	+ 4.354	− 0.024	1	− 44 3 29.9	+ 2.73	+ 0.61	1
1752	α LYRÆ . . .	1*	18 31 51.62	+ 2.013	. .	38	+ 38 38 48.8	+ 2.78	. .	37
1753	6357 B. A. C. . .	6*	18 33 9.14	+ 1.981	. .	1	+ 39 31 . .	+ 2.89		
1754	Anonymous .	.	18 35 57.75	+ 2.072	. .	1	+ 37 8 . .	+ 3.13		
1755	7850 Lacaille . .	7*	18 37 49.98	+ 4.410	+ 0.019	1	− 45 25 5.9	+ 3.30	− 0.64	1
1756	7854 Lacaille . .	7	18 37 53.99	+ 4.169	− 0.001	1	− 39 45 34.4	+ 3.30	− 0.02	1
1757	7840 Lacaille . .	8	18 37 58.82	+ 5.457	+ 0.069	1	− 61 3 27.0	+ 3.31	− 0.54	1
1758	η^1 Cor. Aust. . .	6*	18 38 0.05	+ 4.338	. .	1	− 43 50 12.2	+ 3.31	. .	1
1759	7858 Lacaille . .	7	18 38 11.73	+ 4.072	+ 0.011	1	− 37 10 10.7	+ 3.33	− 0.03	1
1760	7855 Lacaille . .	7	18 38 22.40	+ 4.436	− 0.008	1	− 45 58 18.1	+ 3.34	+ 0.09	1
1761	ϵ^1 Lyræ . . .	4*	18 39 22.14	+ 1.986	. .	1	+ 39 30 . .	+ 3.43		
1762	ν^1 Lyræ . . .	6*	18 44 11.07	+ 2.232	. .	1	+ 32 38 . .	+ 3.84		
1763	β LYRÆ . . .	3*	18 44 32.54	+ 2.214	. .	18	+ 33 11 29.8	+ 3.87	. .	14
1764*	7909 Lacaille . .	6.5	18 44 35.44	+ 4.291	− 0.588 + 0.012	} 1	− 42 53 39.3	+ 3.88	− 0.24	1
1765	ν^1 Sagittarii . .	5*	18 45 6.64	+ 3.626	. .	1	− 22 55 25.7	+ 3.92	. .	1
1766	σ Sagittarii . .	2.5*	18 45 57.78	+ 3.724	. .	2	− 26 28 39.8	+ 4.00	. .	2
1767	7922 Lacaille . .	7	18 47 10.03	+ 4.171	+ 0.004	1	− 40 0 49.8	+ 4.10	+ 0.12	1
1768	7921 Lacaille . .	7.5	18 47 18.08	+ 4.264	− 0.006	1	− 42 19 46.8	+ 4.11	− 0.26	1
1769	6468 B. A. C. . .	6*	18 49 22.57	+ 2.199	. .	1	+ 33 47 . .	+ 4.29		
1770	Anonymous .	7.5?	18 49 49.55	+ 5.090	. .	1	− 57 5 48.1	+ 4.33	. .	1
1771	7937 Lacaille . .	7?	18 50 30.84	+ 5.096	− 0.036	1	− 57 11 45.8	+ 4.38	+ 0.03	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1772	10 Aquilæ . . .	6	18 51 53.72	+ 2.754	. .	1	+ 13 42 35.7	+ 4.50	. .	1
1773	7949 Lacaille . .	7	18 52 15.51	+ 4.693	+ 0.011	1	− 51 13 21.3	+ 4.53	− 0.19	1
1774	Anonymous .	.	18 52 47.77	+ 2.112	. .	1	+ 36 24 . .	+ 4.58		
1775	7967 Lacaille . .	7.5	18 54 53.63	+ 4.713	− 0.033	1	− 51 38 15.0	+ 4.76	+ 0.05	1
1776	*o* Sagittarii . .	4*	18 55 41.58	+ 3.595	. .	3	− 21 57 22.5	+ 4.83	. .	2
1777	Anonymous .	9.5?	18 56 22.23	+ 5.244	. .	1	− 59 9 50.9	+ 4 88	. .	1
1778	7964 Lacaille . .	7.5	18 56 30.80	+ 5.999	− 0.020	1	− 66 6 27.6	+ 4.90	+ 0.14	1
1779	Anonymous .	8.5	18 57 33.84	+ 6.171	. .	1	− 67 19 1.5	+ 4.98	. .	1
1780	Anonymous .	9.5	18 58 21.46	+ 6.184	. .	1	− 67 25 10.7	+ 5.05	. .	1
1781	ζ AQUILÆ . .	3*	18 58 30.93	+ 2.758	. .	12	+ 13 38 38.5	+ 5.07	. .	11
1782	7969 Lacaille? . .	7	18 58 44.77	+ 6.224	+ 0.602?	1	− 67 41 29.3	+ 5.08	− 6.84?	1
1783	8015 Lacaille . .	7.5	19 0 31.03	+ 4.123	0.000	1	− 39 8 41.2	+ 5.23	− 0.10	1
1784	π Sagittarii . .	3*	19 0 50.47	+ 3.574	. .	2	− 21 15 24.0	+ 5.26	. .	1
1785	8021 Lacaille . .	8	19 3 14.04	+ 4.818	− 0.012	1	− 53 37 1.8	+ 5.46	− 0.07	1
1786	8029 Lacaille . .	6.5	19 3 44.29	+ 4.378	+ 0.020	1	− 45 26 23.8	+ 5.51	− 0.16	1
1787	8030 Lacaille . .	7	19 4 46.16	+ 4.757	+ 0.020	1	− 52 41 25.3	+ 5.59	− 0.16	1
1788	8038 Lacaille . .	7	19 6 11.28	+ 4.813	+ 0.010	1	− 53 38 37.9	+ 5.71	− 0.06	1
1789	6580 B. A. C. . .	7	19 8 23.76	+ 6.340	− 0.039	3	− 68 38 38.3	+ 5.90	+ 0.64	3
1790	Anonymous .	8.3	19 8 33.01	+ 6.321	. .	3	− 68 31 54.8	+ 5.91	. .	3
1791	8058 Lacaille . .	7*	19 9 12.70	+ 4.766	− 0.017	1	− 52 59 40.5	+ 5.97	− 0.53	1
1792	8031 Lacaille? . .	7	19 10 4.32	+ 7.341	+ 0.298	1	− 73 22 8.4	+ 6.04	− 5.06	1
1793	Anonymous .	9	19 10 58.19	+ 7.252	. .	1	− 73 3 16.9	+ 6.11	. .	1
1794	8074 Lacaille . .	7	19 11 37.81	+ 4.229	− 0.012	1	− 42 17 24.0	+ 6.17	− 0.28	1
1795	8048 Lacaille . .	8.5	19 12 19.30	+ 7.587	+ 0.021	1	− 74 16 33.7	+ 6.22	+ 0.06	1
1796	Anonymous .	9.5	19 12 23.26	+ 5.964	. .	1	− 66 16 43.9	+ 6.23	. .	1
1797	Anonymous .	9	19 12 36.29	+ 2.979	. .	1	− 66 23 28.0	+ 6.25	. .	1
1798	8099 Lacaille . .	7?	19 17 38.04	+ 4.923	+ 0.002	1	− 55 44 16.5	+ 6.66	0.00	1
1799	δ AQUILÆ . .	3.5	19 17 56.07	+ 3.010	. .	18	+ 2 49 10.4	+ 6.69	. .	17
1800	6649 B. A. C. . .	7?	19 18 22.82	+ 4.899	− 0.006	1	− 55 24 39.3	+ 6.73	− 0.17	1
1801	8146 Lacaille . .	7.5	19 25 14.10	+ 4.383	− 0.040	2	− 46 28 21.1	+ 7.29	+ 0.40	2
1802	8153 Lacaille . .	9?	19 25 57.38	+ 4.014	+ 0.011	1	− 37 7 42.5	+ 7.35	− 0.12	1
1803	*h*² Sagittarii . .	4.5*	19 27 34.37	+ 3.656	. .	4	− 25 12 34.1	+ 7.48	. .	3
1804	6708 B. A. C. . .	6*	19 28 3.20	+ 11.586	− 0.054	2	− 81 42 56.7	+ 7.52	− 0.62	1
1805	8145 Lacaille? . .	8.5	19 30 29.17	+ 7.515	+ 0.002	1	− 74 28 38.5	+ 7.71	+ 0.62	1
1806	8186 Lacaille . .	7	19 32 15.28	+ 3.998	+ 0.003	1	− 36 58 29.4	+ 7.86	− 0.12	1
1807	*e*² Sagittarii . .	5*	19 33 56.07	+ 3.434	. .	2	− 16 28 10.2	+ 7.99	. .	1
1808	γ AQUILÆ . .	3*	19 39 7.68	+ 2.853	. .	21	+ 10 15 4.4	+ 8.41	. .	12
1809	6743 Brisbane . .	8	19 41 8.56	+ 7.436	− 0.138	1	− 74 30 58.5	+ 8.55	+ 2.37	1
1810	6798 B. A. C. . .	7	19 42 47.70	+ 7.388	+ 0.019	1	− 74 24 15.2	+ 8.70	+ 0.32	1
1811	α AQUILÆ . .	1.5*	19 43 27.84	+ 2.893	. .	17	+ 8 28 33.0	+ 8.75	. .	16
1812	β AQUILÆ . .	4*	19 47 56.67	+ 2.946	. .	19	+ 6 2 8.0	+ 9.10	. .	17
1813	8326 Lacaille . .	7.5	19 55 26.51	+ 3.948	− 0.046	1	− 36 47 48.4	+ 9.66	− 1.18	1
1814	6884 B. A. C. . .	5	19 55 44.56	+ 4.771	− 0.019	1	− 55 26 24.3	+ 9.70	+ 0.21	1
1815	Anonymous .	7.5	20 0 28.79	+ 4.394	. .	1	− 48 48 55.4	+10.06	. .	1
1816	6916 B. A. C. . .	7	20 0 50.47	+ 4.192	+ 0.004	1	− 44 5 54.8	+10.09	+ 0.02	1
1817	8383 Lacaille . .	7	20 7 28.29	+ 4.524	+ 0.003	1	− 51 58 27.4	+10.59	+ 0.25	1
1818	8391 Lacaille . .	7	20 7 57.36	+ 4.141	− 0.011	1	− 43 18 57.7	+10.62	− 0.19	1
1819	8396 Lacaille . .	7.5	20 8 22.36	+ 4.131	− 0.012	1	− 43 4 28.8	+10.66	− 0.03	1

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1820	8395 Lacaille . .	7.5	20 8 29.61	+ 4.204	+ 0.001	1	− 44 59 5.5	+10.66	− 0.41	1
1821	α^2 CAPRICORNI .	3.5*	20 9 43.76	+ 3.332	. .	24	− 13 0 21.2	+10.76	. .	5
1822	β Capricorni . .	3*	20 12 34.82	+ 3.377	. .	5	− 15 15 4.5	+10.97	. .	5
1823	α PAVONIS . .	1.8	20 13 44.76	+ 4.804	. .	31	− 57 12 35.8	+11.05	. .	31
1824	π Capricorni .	5*	20 18 43.73	+ 3.444	. .	1	− 18 42 . .	+11.41		
1825	7036 B. A. C. . .	7	20 19 8.56	+ 3.872	− 0.014	1	− 36 5 9.5	+11.44	− 0.03	1
1826	8465 Lacaille . .	7*	20 21 50.02	+ 4.032	− 0.006	1	− 41 23 45.7	+11.64	− 0.18	1
1827	μ^1 Octantis . .	7	20 23 20.36	+ 7.656	+ 0.010	3	− 76 41 46.4	+11.74	− 0.34	3
1828	8462 Lacaille . .	7	20 23 44.27	+ 5.452	− 0.038	1	− 65 32 31.3	+11.77	+ 0.11	1
1829	ρ Pavonis . .	6*	20 24 58.18	+ 5.105	+ 0.022	1	− 62 3 9.7	+11.86	− 0.74	1
1830	8482 Lacaille . .	8	20 26 47.25	+ 5.092	+ 0.008	1	− 62 2 22.8	+11.99	+ 2.92	1
1831	α Indi . . .	3*	20 27 0.38	+ 4.254	. .	5	− 47 48 33.8	+12.00	. .	5
1832	Anonymous .	9	20 30 44.08	+ 6.424	. .	1	− 72 28 57.2	+12.26	. .	1
1833	υ Capricorni . .	5.5	20 31 30.39	+ 3.428	. .	1	− 18 39 47.5	+12.31	. .	1
1834	Anonymous .	7.5	20 31 37.94	+ 7.423	. .	1	− 76 22 12.3	+12.32	. .	1
1835	8538 Lacaille . .	7.5	20 35 36.55	+ 4.373	− 0.022	1	− 51 20 42.6	+12.60	+ 0.03	1
1836	α CYGNI . . .	1.5*	20 36 19.11	+ 2.043	. .	26	+ 44 44 48.6	+12.64	. .	22
1837	ψ Capricorni . .	4.5	20 37 12.42	+ 3.572	. .	1	− 25 48 22.2	+12.70	. .	1
1838	8591 Lacaille . .	8.5	20 42 48.37	+ 4.166	− 0.006	1	− 47 10 38.5	+13.08	− 0.07	1
1839	8602 Lacaille . .	7	20 44 13.31	+ 4.395	− 0.004	1	− 52 40 45.3	+13.17	− 0.05	1
1840	8613 Lacaille . .	6.5	20 44 51.58	+ 3.931	− 0.026	1	− 40 29 34.9	+13.21	− 0.08	1
1841	α Octantis . .	4.5*	20 46 20.25	+ 7.616	− 0.036	4	− 77 35 16.8	+13.31	− 0.58	4
1842	7627 B. A. C. . .	7	20 50 0.50	+ 4.010	− 0.004	1	− 43 35 35.6	+13.55	− 0.22	1
1843	8629 Lacaille . .	8	20 50 50.93	+ 4.241	− 0.031	1	− 49 56 57.6	+13.60	− 0.62	1
1844	8631 Lacaille . .	7*	20 51 56.61	+ 4.262	− 0.020	1	− 50 35 10.6	+13.67	− 0.53	1
1845	8627 Lacaille . .	8	20 52 40.37	+ 5.644	+ 0.004	1	− 69 14 8.9	+13.72	+ 0.02	1
1846	8623 Lacaille . .	8	20 53 11.90	+ 6.463	+ 0.018	1	− 73 59 17.0	+13.75	− 0.03	1
1847	8551 Lacaille? . .	7*	20 58 28.05	+ 14.999	+ 0.167	1	− 85 26 21.3	+14.09	+ 0.83	1
1848	61^1 CYGNI . . .	5.5	21 0 10.59	+ 2.334	. .	16	+ 38 0 52.0	+14.19	. .	15
1849	ν Aquarii. . .	4.5	21 1 25.14	+ 3.271	. .	2	− 11 58 34.5	+14.27	. .	2
1850	Anonymous .	9.5	21 6 20.10	+ 6.449	. .	1	− 74 46 42.7	+14.57	. .	1
1851	8710 Lacaille? . .	9.5	21 6 21.21	+ 6.381	− 0.007	1	− 74 28 52.9	+14.57	+ 2.04	1
1852	ζ CYGNI . . .	3*	21 6 33.24	+ 2.550	. .	19	+ 29 36 49.5	+14.58	. .	16
1853	8739 Lacaille . .	7.5	21 6 34.62	+ 4.365	− 0.025	1	− 54 38 15.8	+14.58	− 0.17	1
1854	29 Capricorni .	6*	21 7 26.37	+ 3.330	. .	5	− 15 47 29.9	+14.63	. .	4
1855	Anonymous .	.	21 10 40.15	+ 6.067	. .	1	− 73 13 45.8	+14.83	. .	1
1856	Anonymous .	7	21 11 39.60	+ 4.422	. .	1	− 56 24 54.9	+14.88	. .	1
1857	ι Capricorni .	4.5*	21 13 53.33	+ 3.351	. .	3	− 17 28 12.5	+15.01	. .	2
1858	γ Pavonis . .	3	21 13 58.23	+ 5.066	. .	5	− 66 2 23.0	+15.02	. .	4
1859	β AQUARII . .	3*	21 23 39.58	+ 3.164	. .	46	− 6 13 42.7	+15.57	. .	39
1860	ν Octantis . .	6	21 24 34.04	+ 7.035	− 0.011	1	− 78 2 58.4	+15.62	− 0.33	1
1861	8865 Lacaille . .	7	21 30 11.49	+ 3.833	− 0.014	1	− 43 7 12.7	+15.92	− 0.14	1
1862	Anonymous .	9	21 30 42.78	+ 3.836	. .	1	− 43 18 15.2	+15.95	. .	1
1863	8868 Lacaille . .	8	21 30 45.30	+ 4.017	− 0.006	1	− 49 23 23.0	+15.95	− 0.05	1
1864	8871 Lacaille . .	7	21 31 4.21	+ 3.797	− 0.017	1	− 41 51 36.0	+15.97	− 0.25	1
1865	γ Capricorni .	3.5	21 31 46.40	+ 3.323	. .	1	− 17 20 15.2	+16.01	. .	1
1866	ε PEGASI. . .	2.5*	21 36 49.11	+ 2.946	. .	38	+ 9 11 21.7	+16.27	. .	34
1867	δ Capricorni .	3.2	21 38 45.31	+ 3.305	. .	4	− 16 48 19.9	+16.37	. .	2

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Preces- sion.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Preces- sion.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1868	Anonymous	7.5	21 39 17.08	+ 5.341	. .	1	− 71 14 46.6	+16.39	. .	1
1869	Anonymous	10	21 42 57.54	+ 5.288	. .	1	− 71 14 19.8	+16.58	. .	1
1870	γ Gruis	3*	21 44 49.81	+ 3.654	. .	6	− 38 4 1.5	+16.67	. .	4
1871	μ Capricorni	5	21 45 6.90	+ 3.260	. .	2	− 14 15 22.0	+16.68	. .	1
1872	7625 B. A. C.	7	21 45 58.11	+ 6.660	− 0.020	1	− 78 22 28.2	+16.72	+ 0.13	1
1873	Anonymous	9	21 47 46.01	+ 5.217	. .	1	− 71 13 10.5	+16.81	. .	1
1874	ε Indi?	5.5	21 51 50.53	+ 4.181	+ 0.451	1	− 57 23 53.5	+17.00	− 2.49	1
1875	8987 Lacaille	7	21 52 0.63	+ 3.611	− 0.003	1	− 37 16 18.1	+17.01	− 0.37	1
1876	α AQUARII	3*	21 58 4.77	+ 3.084	. .	3	− 1 2 47.7	+17.28	. .	3
1877	ι Aquarii	5.5	21 58 19.84	+ 3.248	. .	3	− 14 35 44.1	+17.30	. .	2
1878	α GRUIS	2	21 58 45.29	+ 3.813	. .	42	− 47 41 4.7	+17.31	. .	38
1879	38 Aquarii	6*	22 2 36.27	+ 3.215	. .	1	− 12 18 . .	+17.48		
1880	9064 Lacaille	8	22 6 9.39	+ 3.914	− 0.048	1	− 52 54 4.0	+17.63	− 0.77	1
1881	9067 Lacaille	6.5	22 7 22.01	+ 4.341	− 0.046	1	− 63 33 24.0	+17.68	− 0.27	1
1882	7764 B. A. C.	8	22 7 24.47	+ 3.975	− 0.010	1	− 55 3 55.8	+17.68	+ 0.15	1
1883	α Tucanæ	3*	22 8 10.65	+ 4.203	. .	6	− 61 0 16.4	+17.72	. .	7
1884	7769 B. A. C.	6	22 8 23.61	+ 3.944	+ 0.044	1	− 54 20 48.0	+17.72	− 0.71	1
1885	θ Aquarii	4.5*	22 8 54.94	+ 3.165	. .	1	− 8 31 41.7	+17.75	. .	1
1886	Anonymous	8.5	22 9 48.87	+ 5.886	. .	1	− 77 36 20.5	+17.78	. .	1
1887	9103 Lacaille	6.5*	22 12 22.16	+ 3.924	− 0.005	1	− 54 36 56.6	+17.88	+ 0.01	1
1888	Anonymous	10.5	22 16 34.95	+ 4.365	. .	3	− 65 43 32.7	+18.05	. .	4
1889	δ Tucanæ	5.5	22 16 36.01	+ 4.365	. .	7	− 65 43 35.7	+18.05	. .	8
1890	Anonymous	8.5	22 16 36.89	+ 5.007	. .	1	− 73 13 56.6	+18.05	. .	1
1891	7822 B. A. C.	7	22 18 51.07	+ 4.095	+ 0.037	1	− 60 49 1.4	+18.13	− 0.25	1
1892	σ Aquarii	4.5*	22 22 42.43	+ 3.183	. .	1	− 11 26 38.8	+18.28	. .	1
1893	9154 Lacaille	7	22 23 9.30	+ 4.208	+ 0.008	1	− 64 14 30.5	+18.29	− 0.40	1
1894	9156 Lacaille	7	22 23 9.96	+ 4.069	+ 0.039	1	− 61 12 14.3	+18.29	− 1.05	1
1895	Anonymous	9.5	22 27 22.33	+ 10.119	. .	1	− 85 43 57.6	+18.44	. .	1
1896	9193 Lacaille?	7	22 30 17.40	+ 3.712	− 0.102	1	− 51 27 32.3	+18.54	+ 1.96	1
1897	Anonymous	10	22 30 36.22	+ 10.717	. .	1	− 86 11 42.4	+18.55	. .	1
1898	Anonymous	10	22 31 5.58	+ 9.067	. .	1	− 85 10 37.8	+18.57	. .	1
1899	Anonymous	10	22 31 7.59	+ 9.106	. .	1	− 85 12 36.7	+18.57	. .	1
1900	Anonymous	10	22 31 21.09	+ 8.891	. .	1	− 85 2 49.5	+18.58	. .	1
1901	Anonymous	9.5	22 32 10.18	+ 9.660	. .	1	− 85 39 36.0	+18.60	. .	1
1902	ζ PEGASI	3.5*	22 33 58.93	+ 2.985	. .	31	+ 10 2 58.6	+18.66	. .	27
1903	Anonymous	10	22 36 18.68	+ 9.754	. .	1	− 85 54 45.5	+18.73	. .	1
1904	Anonymous	8.2	22 36 20.42	+ 25.222	. .	2	− 88 45 55.9	+18.73	. .	2
1905	10551 Rumker	9	22 36 21.35	+ 3.154	. .	1	− 9 48 29.8	+18.74	. .	1
1906	9232 Lacaille	7.2	22 37 35.40	+ 4.496	− 0.664	2	− 71 43 19.5	+18.77	− 1.34	2
1907	Anonymous	9	22 37 51.01	+ 12.560	. .	2	− 87 10 11.0	+18.78	. .	2
1908	Anonymous	8	22 40 12.50	+ 4.494	. .	1	− 72 13 3.6	+18.85	. .	1
1909	9271 Lacaille	7	22 41 36.97	+ 3.370	0.000	1	− 33 35 48.4	+18.89	+ 0.16	1
1910	τ^2 Aquarii	4*	22 41 38.69	+ 3.187	. .	1	− 14 22 58.7	+18.90	. .	1
1911	9265 Lacaille	7	22 41 42.20	+ 3.844	− 0.046	1	− 59 53 25.2	+18.90	+ 0.22	1
1612	7955 B. A. C.	7	22 42 14.60	+ 3.864	+ 0.047	2	− 60 40 29.2	+18.91	− 0.42	2
1913	Anonymous	10	22 46 9.46	+ 8.263	. .	2	− 85 20 12.9	+19.02	. .	2
1914	Anonymous	10	22 46 14.74	+ 8.259	. .	2	− 85 20 19.3	+19.03	. .	2
1915	δ Aquarii	3	22 46 41.18	+ 3.197	. .	1	− 16 37 . .	+19.04		

Number.	Name of Star.	Magnitude.	Right Ascension, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.	Declination, Jan. 1, 1850.	Annual Precession.	Annual Proper Motion.	No. of obs.
			h. m. s.	s.	s.		° ′ ″	″	″	
1916	α Piscis Aust.	1.8	22 49 21.11	+ 3.310	. .	43	− 30 24 57.2	+19.11	. .	41
1917	Anonymous	8.7	22 49 43.12	+ 17,250	. .	3	− 88 22 9.4	+19.12	. .	2
1918	Anonymous	9	22 50 46.87	+ 8.369	. .	1	− 85 42 23.4	+19.15	. .	1
1919	9335 Lacaille	8	22 53 50.75	+ 3.591	− 0.018	1	− 53 46 15.0	+19.23	+ 0.04	1
1920	Anonymous	9	22 56 10.47	+ 8.102	. .	1	− 85 49 14.3	+19.28	. .	1
1921	α Pegasi	2.5	22 57 17.53	+ 2.979	. .	34	+ 14 23 56.7	+19.31	. .	31
1922	Anonymous	10	22 58 26.58	+ 7.299	. .	1	− 85 12 7.2	+19.34	. .	1
1923	9368 Lacaille	7	22 59 12.10	+ 3.813	+ 0.088	1	− 64 40 29.1	+19.35	− 0.56	1
1924	Anonymous	10	22 59 30.11	+ 3.689	. .	1	− 60 32 32.3	+19.36	. .	1
1925	9372 Lacaille	7.5	22 59 31.20	+ 3.689	− 0.016	1	− 60 32 39.3	+19.36	+ 0.22	1
1926	τ Octantis	5.7	23 2 45.13	+ 14.224	− 1.672	3	− 88 18 8.3	+19.43	− 0.17	3
1927	Anonymous	10	23 4 49.52	+ 3.884	. .	1	− 68 34 3.2	+19.48	. .	1
1928	Anonymous	8	23 5 1.64	+ 3.445	. .	1	− 49 36 56.6	+19.48	. .	1
1929	Anonymous	10	23 5 32.97	+ 14.406	. .	3	− 88 24 34.2	+19.49	. .	3
1930	φ Aquarii	4.5*	23 6 33.22	+ 3.109	. .	3	− 6 51 25.3	+19.51	. .	2
1931	9405 Lacaille	7	23 6 35.90	+ 3.618	− 0.035	1	− 60 30 37.0	+19.51	+ 0.35	1
1932	8087 B. A. C.	6*	23 6 36.10	+ 3.557	− 0.013	1	− 57 30 26.0	+19.51	+ 0.04	1
1933	9409 Lacaille	7	23 7 29.94	+ 3.470	+ 0.087	1	− 52 41 20.1	+19.53	− 0.10	1
1934	γ Piscium	4*	23 9 23.29	+ 3.059	. .	1	+ 2 27 53.7	+19.57	. .	1
1935	ψ³ Aquarii	5*	23 11 9.30	+ 3.124	. .	2	− 10 25 46.6	+19.60	. .	1
1936	9451 Lacaille	9.2	23 14 12.93	+ 3.330	+ 0.139	2	− 44 10 56.8	+19.66	+ 0.37	2
1937	8148 B. A. C.	6*	23 15 23.64	+ 3.436	− 0.013	1	− 54 37 48.7	+19.68	− 0.15	1
1938	Anonymous	7	23 15 44.27	+ 3.323	. .	1	− 44 25 21.6	+19.68	. .	1
1939	θ Piscium	4.5*	23 20 21.65	+ 3.050	. .	2	+ 5 33 19.6	+19.76	. .	2
1940	Anonymous	10	23 22 42.41	+ 3.585	. .	1	− 67 6 15.8	+19.79	. .	1
1941	9500 Lacaille	7.2	23 22 55.00	+ 3.228	− 0.026	2	− 35 56 1.0	+19.79	+ 0.17	2
1942	9498 Lacaille	7.5	23 23 5.44	+ 3.402	− 0.033	2	− 56 58 11.0	+19.80	+ 0.22	2
1943	8221 B. A. C.	6	23 29 52.65	+ 3.115	. .	1	− 13 53 . .	+19.88	. .	
1944	9544 Lacaille	7.5	23 31 52.71	+ 3.285	− 0.021	1	− 52 26 49.4	+19.91	− 0.17	1
1945	9545 Lacaille	6.5	23 31 55.30	+ 3.254	− 0.018	1	− 48 9 27.6	+19.91	− 0.79	1
1946	ι Piscium	4.5*	23 32 14.25	+ 3.059	. .	27	+ 4 48 49.8	+19.91	. .	27
1947	8239 B. A. C.	6	23 33 22.93	+ 3.106	. .	1	− 12 30 44.6	+19.92	. .	1
1948	9586 Lacaille	9	23 38 33.58	+ 3.220	− 0.046	1	− 49 47 29.5	+19.97	− 0.31	1
1949	9593 Lacaille	7	23 39 29.21	+ 3.210	− 0.065	1	− 49 6 2.4	+19.98	− 0.28	1
1950	9595 Lacaille	7	23 39 48.57	+ 3.228	− 0.002	1	− 53 2 18.8	+19.98	− 0.13	1
1951	9598 Lacaille	6.5	23 40 9.15	+ 3.219	− 0.033	1	− 51 43 25.3	+19.98	− 0.01	1
1952	9634 Lacaille	8	23 45 47.07	+ 3.171	+ 0.006	1	− 50 16 2.6	+20.02	+ 0.11	1
1953	9638 Lacaille	7	23 46 16.66	+ 3.213	− 0.074	1	− 60 22 37.9	+20.02	− 0.29	1
1954	9645 Lacaille?	8	23 47 44.96	+ 3.163	+ 0.002	1	− 52 11 20.7	+20.03	+ 1.66	1
1955	9646 Lacaille	7.5	23 47 52.31	+ 3.172	+ 0.002	1	− 54 39 10.5	+20.03	− 0.02	1
1956	γ² Octantis	5*	23 49 10.89	+ 3.586	. .	1	− 83 0 12.8	+20.03	. .	1
1957	27 Piscium	5.5*	23 50 59.73	+ 3.076	. .	2	− 4 23 16.2	+20.04	. .	2
1958	π Phœnicis	5.5*	23 51 8.00	+ 3.142	. .	5	− 53 35 1.7	+20.04	. .	6
1959	9692 Lacaille	7	23 53 33.83	+ 3.106	− 0.017	1	− 42 19 15.9	+20.05	− 0.01	1
1960	9693 Lacaille	7	23 53 44.22	+ 3.146	+ 0.010	1	− 63 45 30.4	+20.05	+ 0.22	1
1961	9698 Lacaille	8	23 54 12.85	+ 3.102	− 0.003	1	− 42 26 50.9	+20.05	− 0.26	1
1962	9699 Lacaille	7	23 54 16.30	+ 3.099	+ 0.002	1	− 38 44 13.1	+20.05	+ 0.08	1
1963	33 Piscium	5*	23 57 39.47	+ 3.073	. .	3	− 6 32 45.8	+20.06	. .	2

NOTES TO THE GENERAL CATALOGUE.

No. 30. Gilliss observed the edges of this nebula. Lacaille gives two stars in it, Nos. 306 and 307.

No. 1668. Comparing the position of this star given by Gilliss with that given by Lacaille the resulting proper motion is $+0^{s}.592$, but if Gilliss's R. A. is diminished by 1 minute the proper motion is reduced to $-0^{s}.008$.

No. 1672. Comparing the position of this star given by Gilliss with that given by Lacaille the resulting proper motion is $+0^{s}.575$, but if Gilliss's R. A. is diminished by 1 minute the proper motion is reduced to $-0^{s}.025$.

No. 1764. Comparing the position of this star given by Gilliss with that given by Lacaille the resulting proper motion is $-0^{s}.588$, but if Gilliss's R. A. is increased by 1 minute the proper motion is reduced to $+0^{s}.012$.

CATALOGUE OF DOUBLE STARS.

Number.	Date of Observation	No. of obs.	Right Ascension, Jan. 1, 1850.	Declination, Jan. 1, 1850.	Angle of Position.	Distance.	Magnitude.		Numbers in other Catalogues.	Notes.
							Prim.	Sec.		
			h. m. s.	° ′ ″	°	″				
1	1851.906	1	0 21 24	− 66 44 33	59.2	33.3	9	10	3370 H.	
2	1851.898	1	0 33 9	− 69 33 49	227.0	4.1	10	11	. . . .	Not in H.
3	1851.873	1	0 35 43	− 54 56 0	235.5	17.2	7.5	8	184 L., 3388 H.	Lacaille saw but a single star; Herschel specifies two 9th mags.
4	1851.912	1	0 46 38	− 61 53 33	52.3	6.7	8	8	247 L.	
5	1851.854	2	0 46 39	− 70 18 55	75.5	21.2	7.5	8	246 B. A. C., 250 L., 3407½ H., 114 B., 2 D.	Herschel says 116 B. [M.]
6	1851.915	2	0 48 41	− 66 16 17	215.5	16.4	8.2	10.2	258 L., 3408 H.	
7	1851.805	1	0 48 56	− 68 15 38	75.0	23.0	10	10.5	. . . .	Not in H.
8	1850.855	2	0 55 17	− 76 37 23	82.0	27.7	8.5	9.2	295 L.	Not in H.
9	1850.868	1	1 5 35	− 73 45 13	0.0	3.3	8	11	364 B. A. C.	No app. diff. in R. A. Comp. so small as to escape detection on preceding day. Not in H.
10	1850.888	3	1 10 42	− 69 40 30	17.5	4.4	6	9.2	κ Tucanæ.	
	1851.890	2	1 10 42	− 69 40 30	17.0	6.4	5.5	9.5	3423 H., 178 B.	
11	1851.895	1	1 11 50	− 67 11 31	. .	. .	. .	. .	398 B. A. C., 3426 H., 180 B., 361 L.	Comp. north, preceding, close double. No measures.
12	1851.901	1	1 30 44	− 69 55 20	129.4	26.8	9.5	11	. . . .	Not in H.
13	1850.794	1	1 32 7	− 58 0 0	. .	. .	. .	7	α Eridani.	Comp. faint blue; precedes and 3″ south.
14	1850.893	2	1 40 31	− 83 2 2	55.5	6.4	9	9.7	561 L.	Not in H.
15	1850.928	2	2 1 30	− 71 58 25	128.5	8.5	10	10	3483 H.	
16	1850.873	1	2 10 8	− 73 22 59	143.7	7.2	10	10		
17	1851.931	1	2 34 17	− 55 29 2	202.6	17.8	7.5	8	3520 H.	
18	1852.668	1	2 42 46	− 67 38 3	160.8	4.4	9.5	9.5		
19	1850.923	1	3 12 52	− 79 32 55	224.0	15.1	7.5	9	3568 H.	Large star, red; small bluish.
	1852.003	1	3 12 52	− 79 32 55	225.0	15.8	6.5	9		
20	1851.931	1	3 40 45	− 54 44 53	6.0	6.1	6.5	10	3592 H., 602 B., 1237 L.	
21	1850.950	1	3 44 25	− 71 28 15	76.5	18.0	9.5	11	3603 H.	
22	1850.986	1	3 47 18	− 81 19 40	119.5	37.4	9	9.5	3607 H.	
23	1852.041	1	3 48 25	− 71 15 32	335.1	17.2	10	11	3606 H.	
24	1852.025	1	3 51 3	− 80 28 44	163.4	19.2	9	10	3612 H.	
25	1852.041	1	4 3 26	− 71 32 45	34.5	35.5	10	10		
26	1851.909	1	4 7 52	− 69 26 39	224.8	7.4	10	11	3631 H.	
27	1852.030	1	4 9 32	− 67 42 41	108.0	27.3	9.5	10	. . . .	Not in H.
28	1851.917	1	4 15 0	− 66 35 20	26.0	56.1	9	10	. . . .	Not in H.
29	1851.914	1	4 27 32	− 66 2 38	48.8	23.3	9	10	3662 H.	
30	1850.939	1	4 31 33	− 78 0 36	55.0	8.9	9	9	3673 H., 1584 L.	
	1852.016	1	4 31 33	− 78 0 36	68.1	9.8	8	8		
31	1850.942	1	4 40 48	− 77 8 54	45.5	35.8	9	9.5	3691 H.	
	1851.997	1	4 40 48	− 77 8 54	54.3	25.9	9	10		

Number.	Date of Observation.	No. of obs.	Right Ascension, Jan. 1, 1850.	Declination, Jan. 1, 1850.	Angle of Position.	Distance.	Magnitude.		Numbers in other Catalogues.	Notes.
							Prim.	Sec.		
			h. m. s.	° ′ ″	°	″				
32	1852.120	1	5 1 41	− 65 6 46	191.6	39.5	9	10	. . . .	Not in H.
33	1851.012	2	5 12 41	− 72 15 15	81.4	5.3	9.5	9.5	3746 H., 1831 L.	Precisely equal in mag. and color.
	1852.074	1	5 12 41	− 72 15 15	102.5	3.9	10	10		
34	1851.063	1	5 29 7	− 73 15 5	. .	. .	9.5	10.5	. . . .	Comp. n. f.
35	1852.077	1	5 32 42	− 71 1 26	252.0	15.3	8.5	12	3783 H., 1008 B.	
36	1852.140	1	5 33 58	− 46 10 27	56.0	5.0	6.5	9	3784 H.	
37	1851.123	1	5 45 15	− 72 11 58	221.1	34.5	10	11		
	1852.074	1	5 45 15	− 72 11 58	232.0	27.2	10	11		
38	1850.966	1	5 47 20	− 74 54 44	172.0	5.4	10	10	3814 H.	
	1852.068	1	5 47 20	− 74 54 44	166.0	3.7	9.5	10		
39	1851.129	1	5 51 4	− 73 30 52	213.5	14.4	11	12		
40	1851.101	1	5 54 47	− 65 58 48	310.4	47.8	8.5	10		
	1852.088	1	5 54 47	− 65 58 48	315.0	45.5	9	10		
41	1851.099	2	6 11 49	− 65 29 38	120.5	20.0	8	8	3847½ H., 1201 B.	
	1852.120	1	6 11 49	− 65 29 38	113.4	26.0	8	9		
42	1851.159	1	6 16 18	− 74 27 39	83.8	9.2	10	10.5	3855 H.	
43	1852.088	1	6 19 58	− 66 21 3	100.3	38.8	10	11	. . . .	Not in H.
44	1852.192	1	6 20 16	− 34 57 46	67.3	6.7	8.5	9	3858 H.	H. gives 33° dec., which is undoubtedly an error of 1°. [M.]
45	1852.186	1	6 20 59	− 40 53 28	309.5	7.8	8	9	3860 H., 2284 L.	
46	1852.164	1	6 34 20	− 44 55 57	36.1	18.7	8.5	10	3882 H.	
47	1852.095	2	6 39 8	− 65 8 13	243.1	26.7	8.5	12		
48	1851.110	1	6 43 36	− 64 29 19	42.8	9.5	11	11		
49	1852.164	1	6 48 46	− 34 2 12	270.0	11.2	8.5	9.5	3900 H., 2520 L.	
50	1852.137	1	6 49 27	− 56 19 23	212.1	33.0	8	9	. . . .	Not in H.
51	1852.044	1	6 58 33	− 74 4 51	16.0	17.1	9.5	10.5	. . . .	Not in H.
52	1852.230	1	6 59 21	− 43 24 7	120.1	19.5	6.5	8	2328 B. A. C.	Not in H.
53	1852.074	1	6 59 21	− 71 49 27	229.5	8.9	9	13	3929 H.	
54	1851.162	1	7 0 5	− 34 33 11	156.2	3.8	7	9	3928 H., 2612 L.	Triple. 9th mag. blue. Δs estimated.
					285.0	19.1	7	10		
55	1852.140	1	7 1 12	− 42 5 59	40.5	72.0	8	8.5	3931 H., 1473 B., 2631 L.	
56	1852.164	1	7 7 14	− 35 59 2	346.0	50.1	8.5	8.5	A. B. A. C. 2671 L.	Triple. Not in H.
					341.6	52.5	8.5	10		
57	1850.227	1	7 10 0	− 70 15 17	293.7	13.1	5	8	γ^2 Piscis Volantis, 3945½ H.	
	1851.068	1	7 10 0	− 70 15 17	302.5	13.0	4.5	7	1530 B., 42 D.	
58	1852.208	1	7 11 10	+ 22 15 12	199.0	8.5	3	10	δ Geminorum.	Δs estimated.
59	1851.079	1	7 11 26	− 68 49 21	202.6	53.0	10	12		
60	1852.241	1	7 11 51	− 36 49 53	212.9	67.4	3	9	π Argus, 3946½ H., 1536 B., 43 D.	
61	1851.096	1	7 15 12	− 65 55 37	35.0	24.4	9.5	11	3955 H.	
62	1852.145	1	7 16 44	− 52 2 11	28.3	8.2	7	8.5	3959½ H., 1578 B., 2779 L.	
63	1852.079	1	7 16 52	− 35 38 8	201.5	8.2	8	9	3957 H., 2767 L.	
64	1852.140	1	7 17 1	− 51 55 4	280.5	33.6	7.5	9.5	3958 H.? 2785 L.	H. has written neither pos. nor dist.

Number.	Date of Observation	No. of obs.	Right Ascension, Jan. 1, 1850.	Declination, Jan. 1, 1850.	Angle of Position.	Distance.	Magnitude.		Numbers in other Catalogues.	Notes.
							Prim.	Sec.		
			h. m. s.	° ′ ″	°	″				
65	1851.145	1	7 19 29	− 37 0 0	187.8	31.0	6.5	7	3966 H., 2801 L.	△ dec. estimated.
66	1851.246	1	7 21 29	− 34 1 20	211.7	23.5	6.5	8	3969 H., 2815 L.	△ dec. estimated.
67	1852.238	2	7 24 29	− 43 0 0	64.0	23.7	3	9.7	σ Argus, 3972½ H., 1631 B., 51 D.,	
68	1850.249	1	7 29 32	− 67 50 7	. .	. .	10	. .	3985 H.	1850. Close double. Fol. star smaller. Micrometer-wire covered both. 1851. App. close double, but haze prevented it being seen with certainty.
	1851.142	1	7 29 32	− 67 50 7						
69	1850.233	1	7 35 30	− 69 48 33	. .	. .	9.5	. .	. . . .	Is probably double.
70	1850.200	1	7 38 24	− 73 56 21	. .	. .	. .	. .	2567 B. A. C., 3997 H., 1731 B.	Close double. Mags. nearly equal. Observed the s. p.
71	1852.192	1	7 38 36	− 39 30 56	11.8	8.6	9	9.5	2947 L.	Not in H.
72	1850.210	3	7 43 38	− 72 14 39	110.9	17.9	5	10.2	ζ Volantis, 4009½ H.	
	1852.252	1	7 43 38	− 72 14 39	107.9	16.3	5	10	1779 B., 57 D.	
73	1851.118	1	7 46 17	− 66 41 51	59.7	18.8	10	10	4011 H.	
74	1851.153	1	7 46 57	− 63 18 38	147.0	11.3	8.5	9.5	4014 H.	
75	1852.152	2	7 46 59	+ 25 3 20	164.0	19.8	. .	12	931 Struve's Gen. Cat., Weisse Horæ VII, 1346.	Comp. blue.
76	1850.227	1	7 51 31	− 70 23 25	. .	. .	. .	. .	4023 H., 3111 L.	Close double. Comp. s. p. Surely not so well separated as 3997 H. on 1850, March 15.
77	1852.093	1	7 51 41	− 53 13 36	339.6	34.1	8	9	3090 L.	Not in H.
78	1850.252	1	7 57 10	− 67 15 58	0.0	5.5	9.5	11.5	. . . .	Dist. estimated. Not in H.
79	1852.219	1	7 57 35	− 40 53 33	347.3	29.8	7.5	11	4038 H., 3128 L.	Mags. of H., 7 and 8.5. Assuredly there is greater difference.
80	1852.192	1	8 3 42	− 39 4 29	246.1	48.7	7.5	9	3172 L.	Not in H.
81	1851.096	1	8 4 20	− 65 50 45	154.3	38.3	10	10		
82	1851.148	3	8 4 54	− 46 53 48	220.4	41.8	3	5	γ Argus, 4049⅜ H., 1916 and 1917 B.	The fifth star of this cluster mentioned by H. was not seen. Brisbane calls the third one a 7 mag. The cluster deserves special attention for its evident changes since H.'s observations.
					147.5	62.9	3	9.5		
					140.5	94.2	3	10		
	1852.220	3	8 4 54	− 46 53 48	220.9	41.2	2.8	5	65 D.	
					150.6	61.7	2.8	9		
					130.5	92.6	2.8	10		

Number.	Date of Observation	No. of obs.	Right Ascension, Jan. 1, 1850.	Declination, Jan. 1, 1850.	Angle of Position.	Distance.	Magnitude.		Numbers in other Catalogues.	Notes.
							Prim.	Sec.		
			h. m. s.	° ′ ″	°	″				
83	1850.234	2	8 5 31	− 69 25 42	170.1	8.4	9	9.2	4055 H.	Nearly equal mags. and R. A. Both quite reddish. Comp. 8″.3 south.
84	1852.156	2	8 5 38	− 60 38 15	96.9	12.2	8	9	4053 H., 3211 L.	
85	1850.255	2	8 7 26	− 68 10 38	33.0	5.0	6.5	10	ε Volantis, 4058½ H., 1940 B., 66 D., 7 R.	
86	1850.197	1	8 7 49	− 73 58 28	. .	. .	. .	. .	. . . .	Mr. McRea remarks: "Singular looking star, longer than broad, like a close double."
87	1852.186	1	8 8 54	− 46 32 22	343.5	36.4	6.5	9.5	3228 L.	Not in H.
88	1851.102	2	8 9 35	− 45 22 47	251.5	30.1	7	9.7	2783 B. A. C., 4069 H., 1948 B.	About 20 stars in field, and two closer double ones.
89	1852.239	2	8 9 55	− 36 54 55	348.0	19.3	8	9.5	4063 H., 3234 L.	
90	1851.196	5	8 12 44	− 85 30 28	83.7	52.3	8.8	9.8	4086 H., 2007 B.	
91	1851.113	2	8 13 0	− 62 27 10	56.6	3.7	6.5	9.5	C Carinæ.	Not in H.
92	1851.175	1	8 13 37	− 62 23 57	300.0	18.0	9	12	4077 H.	
93	1850.242	2	8 20 13	− 71 2 9	54.8	65.2	7.7	8	A. B. } 2835 & 2837 B. A. C., 4094½ H. 3355 & 3357 L., 2018 & 2022 B.	Triple. A most exquisite group, the larger stars being of a brilliant white, and the small one orange.
					45.5	101.0	7.7	9.5	A. C. }	
					56.0	64.0	7	7	A. B. }	
	1851.052	1	8 20 13	− 71 2 9	46.0	100.0	7	8	A. C. }	
94	1852.148	1	8 20 48	− 38 34 10	128.6	9.6	7.5	8	4093 H., 3324 L.	
95	1851.156	1	8 21 15	− 51 14 18	210.0	34.9	6.5	9.5	3337 L.	Δ Dec. estimated 30″. Not in H.
96	1851.162	1	8 22 11	− 34 37 11	149.0	35.0	6	10.5	3336 L.	Not in H.
97	1850.178	2	8 26 8	− 75 56 18	125.5	26.3	8.7	9.2	4109 H., 3437 L.	
98	1852.244	1	8 32 30	− 48 54 13	242.6	11.7	7	10	4119 H., 2115 B., 3455 L.	
99	1850.214	1	8 39 4	− 71 48 49	293.0	10.2	9	13	. . . .	Not in H.
100	1850.216	1	8 40 19	− 71 45 14	. .	. .	9	11	. . . .	Comp. 1″.5 south and close following.
101	1852.201	2	8 41 26	− 34 3 7	131.0	51.8	7.5	10	3525 L.	Not in H.
102	1852.164	2	8 51 42	− 42 40 49	235.5	45.4	7.7	9	A. B. } 3615 L.	Triple. Not in H.
	1852.153	1	8 51 42	− 42 40 49	2.5	39.7	. .	10	A. C. }	
103	1850.274	1	8 55 0	− 65 37 31	113.3	9.1	9	10.5	4164 H., 3666 L.	
	1852.268	1	8 55 0	− 65 37 31	139.6	9.9	8	9.5		
104	1852.241	1	8 55 7	− 48 58 28	297.0	10.9	7.5	11	3648 L.	Not in H.
105	1850.293	1	9 4 57	− 63 25 43	81.5	9.5	10	10.5	4185 H.	
106	1850.257	1	9 9 3	− 66 27 57	36.4	34.6	10	11	. . . .	Not in H.
107	1850.238	3	9 16 2	− 69 10 20	36.5	12.6	9.2	9.7	4203½ H., 2452 B., 10 R.	Δ Dec. measured in one obs. only.

Number.	Date of Observation	No. of obs.	Right Ascension, Jan. 1, 1850.	Declination. Jan. 1, 1850.	Angle of Position.	Distance.	Magnitude.		Numbers in other Catalogues.	Notes.
							Prim.	Sec.		
			h. m. s.	° ′ ″	°	″				
108	1851.159	1	9 17 38	− 74 16 10	336.7	6.5	7	13	3215 B. A. C.	There are other obs. of 3215, but not of its comp. I suspect that the obs. of 1851.159 should be 20″ greater, and then the reading would be +26″.6 for △ Dec., which would give pos. 354°.2 and dist. 26″.1. Observed as triple by Herschel. [M.]
	1852.255	1	9 17 38	− 74 16 10	354.3	21.3	6	10	4206 H., 2470 B.	
109	1850.170	1	9 21 22	− 77 0 22	209.6	6.8	9	12	4214 H., 3898 L.	
	1851.123	1	9 21 22	− 77 0 22	197.0	8.3	9	10		
110	1852.211	1	9 27 15	− 37 58 35	186.0	56.4	7	10	3905 L.	Not in H.
111	1850.164	1	9 30 9	− 77 35 51	60.0	23.4	9	9	4226 H.	
	1851.123	1	9 30 9	− 77 35 51	79.5	21.6	9.5	9.5		
112	1852.208	1	9 35 25	− 58 36 21	349.5	53.7	7.5	10	. . . . . .	Not in H.
113	1852.194	1	9 40 23	− 45 13 38	208.0	9.4	7	10	4245 H., 4014 L.	
114	1850.238	2	9 41 31	− 69 6 4	132.5	12.0	9.2	10	4248 H., 4044 L.	
115	1852.181	1	9 42 22	− 34 19 32	291.0	6.2	8.5	8.5	4249 H., 4031 L.	
116	1850.282	1	9 43 21	− 64 22 38	137.0	5.8	3	9.5	υ Argus.	Both brilliant white, the smaller like a gem.
	1851.398	5	9 43 21	− 64 22 38	124.9	6.6	4.3	9.4		
	1852.228	4	9 43 21	− 64 22 38	122.0	5.9	3.5	8.2		
117	1850.282	1	9 44 3	− 64 25 26	124.0	11.6	11	11	4252 H.	Equal. Bluish in contrast with υ Argus and its comp., which are in the field with it. Neither angle nor distance given by H.
118	1850.183	1	9 44 22	− 75 12 21	. .	. .	. .	10	4258 H.	Comp. 5″.6 south, following close.
119	1850.235	1	9 45 15	− 69 14 31	155.0	36.4	9.5	9.5	. . . . . .	Not in H.
120	1851.096	1	9 47 51	− 79 48 42	228.6	13.6	10	11	4265 H.	
121	1851.175	1	9 49 56	− 62 42 35	251.2	9.1	12	10.5	. . . . . .	Not in H.
122	1851.253	7	9 50 44	− 85 19 10	271.8	16.5	8.4	8.4	4272 H., 4169 L.	Fol. star light blue.
123	1850.244	1	9 51 56	− 68 28 41	327.4	8.6	8.5	10	3413 B. A. C., 4269$^{2}_{3}$ H., 2760 B., 12 R.	Comp. blue.
124	1850.260	1	9 53 29	− 67 11 0	. .	. .	9	. .	. . . . . .	Evidently elongated and probably double, but there is not sufficient power to separate under such illumination.
125	1851.175	1	9 54 46	− 62 37 33	347.0	44.1	8.5	11	4117 L.	Not in H.
126	1851.101	1	9 56 46	− 79 34 49	63.8	6.8	10	11	4281 H.	
127	1851.375	1	9 59 5	− 45 10 5	64.5	4.7	7	10	4284 H., 4146 L.	
128	1850.345	1	10 1 10	− 83 41 16	49.5	11.6	9	10.5	. . . . . .	Not in H.

Number.	Date of Observation	No. of obs.	Right Ascension, Jan. 1, 1850.	Declination, Jan. 1, 1850.	Angle of Position.	Distance.	Magnitude.		Numbers in other Catalogues.	Notes.
							Prim.	Sec.		
			h. m. s.	° ′ ″	°	″				
129	1850.397	1	10 2 40	− 75 20 22	99.1	29.6	9	9	4288 H.	
130	1850.296	3	10 9 27	− 64 57 48	17.9	11.5	9.2	9.2	4301 H.	
131	1851.290	2	10 9 41	− 43 29 35	273.7	15.6	9	10	. . . .	Not in H.
132	1852.227	1	10 10 3	− 51 53 58	152.6	37.9	7.5	8	4231 L.	Not in H.
133	1850.308	2	10 10 40	− 68 7 40	266.0	14.5	9	9.2	. . . .	Not in H.
	1851.339	1	10 10 40	− 68 7 40	252.0	12.9	9	9.5		
134	1850.277	2	10 10 57	− 66 32 24	211.5	46.6	8.2	9	4248 L.	Not in H.
135	1852.244	1	10 11 42	+ 20 35 53	. .	. .	. .	6.5	γ Leonis.	Close double. Comp. s. f.
136	1850.366	3	10 12 14	− 83 18 39	284.1	5.7	8.5	9.5	4310 H., 4297 L.	H. says 9th and 10th mags. They are certainly as bright as here put down.
137	1850.274	1	10 12 48	− 65 50 28	90.0	3.8	10	11	. . . .	Not in H.
138	1850.271	1	10 12 56	− 65 50 28	270.0	1.2	9	11.5	. . . .	Not in H.
139	1850.285	1	10 14 24	− 63 55 24	145.5	2.8	9	9	4306 H.? 2961 B.	H. gives his 4306 as 2955 B., but does not give the seconds of R. A. or Dec. [M.]
140	1851.159	1	10 14 29	− 71 18 46	61.3	16.7	11	11	4308 H.	
141	1852.239	2	10 15 20	− 55 17 18	110.0	8.1	4.8	9.2	A. B. } T Velorum. 4310½ H., 2972 B.	Triple.
	1852.244	1	10 15 20	− 55 17 18	184.5	36.1	5.5	9	A. C.	
142	1852.230	1	10 15 21	− 50 59 15	218.0	31.4	8	8.5	3245 H., neb. and clusters.	
143	1850.296	1	10 16 32	− 66 46 14	19.2	18.3	9.5	9.5	4314 H.	
144	1850.227	1	10 17 5	− 70 23 37	205.0	23.0	9	9.5	4290 L.	Not in H.
145	1852.214	1	10 18 21	− 37 32 35	342.7	18.5	7.5	11	4287 L.	Not in H.
146	1850.293	1	10 26 2	− 63 24 38	105.3	27.2	10.5	10.5	. . . .	Not in H.
	1851.378	1	10 26 2	− 63 24 38	93.8	28.6	10	10		
147	1852.192	2	10 27 24	− 54 36 53	29.5	25.7	6.5	7.5	4350 L.	Not in H.
148	1852.214	1	10 27 35	− 59 0 27	44.5	76.2	8	8	3082 B.	Noted by B. as "double" only.
149	1850.235	1	10 27 49	− 69 23 6	50.5	9.2	10	10	4335 H.	
150	1850.219	1	10 28 6	− 71 20 21	47.0	6.6	9.5	9.5	3086 B.	Not in H.
	1852.266	2	10 28 6	− 71 20 21	29.5	9.9	9.2	9.2		
151	1850.293	1	10 29 48	− 63 21 37	33.0	25.0	9	9	4336⅜ H., 3103 B.	
	1851.378	1	10 29 48	− 63 21 37	45.5	25.6	8	9	4376 L., 93 D.	
152	1852.205	1	10 33 17	− 58 2 11	66.7	17.2	7	9	3657 B. A. C.	Not in H.
153	1850.208	1	10 33 59	− 72 48 1	104.8	20.8	9.5	10	. . . .	Not in H.
154	1850.433	2	10 39 15	− 58 53 49	16.9	56.1	2	9.5	η Argus.	See 4366 H.
155	1850.230	1	10 39 45	− 70 4 8	37.0	37.4	7	11	3699 B. A. C., 4368½ H., 3203 B., 99 D.	H. says triple. There is another 7th mag. 12*s*. fol. 3699 and 16″ south.
156	1850.308	2	10 44 17	− 67 57 19	59.7	9.9	10.2	10.2	. . . .	Not in H.
	1851.339	1	10 44 17	− 67 57 19	65.5	9.0	11.5	11		

Number.	Date of Observation	No. of obs.	Right Ascension, Jan. 1, 1850.	Declination, Jan. 1, 1850.	Angle of Position.	Distance.	Magnitude.		Numbers in other Catalogues.	Notes.
							Prim.	Sec.		
			h. m. s.	° ′ ″	°	″				
157	1850.342	3	10 52 4	− 68 14 7	70.0	8.4	8	9.5	3762 B. A. C., 4393 H.	
	1851.339	1	10 52 4	− 68 14 7	52.5	6.6	7.5	9.5	3314 B.	
158	1852.281	2	10 52 6	− 70 32 56	159.6	24.8	8.5	8.7	4392 H.	
159	1852.172	1	10 58 47	− 58 54 18	275.0	16.7	7	10	4595 L.	Δ Dec. estimated. Not in H.
160	1850.386	1	10 59 4	− 83 6 24	2.5	20.0	10	12.5	4406 H.	Δ R. A. and Δ Dec. estimated. Comp. not visible under illumination.
161	1850.279	1	11 4 52	− 64 36 16	190.7	47.4	8.5	11	. . . . . .	Not in H.
162	1852.249	1	11 9 30	− 45 3 55	90.0	3.7	8	8	4423 H., 3501 B., 4678 L.	
163	1851.285	1	11 12 14	− 76 4 18	166.4	10.0	10	10	4424 H.	
164	1850.285	1	11 16 54	− 64 7 53	202.2	4.5	7	8.5	3880 B. A. C., 4432 H., 3562 B.	
165	1852.356	1	11 30 34	− 60 4 26	. .	. .	7	10	3687 B.	Comp. n. f. Not in H.
166	1850.383	1	11 32 25	− 82 14 18	250.3	6.5	9.5	10	4462 H.	
167	1850.298	1	11 32 50	− 62 38 57	283.6	28.3	8.5	9	3706 B.	Not in H.
168	1852.402	1	11 40 58	− 65 17 21	333.2	9.3	9	10	. . . .	Not in H.
169	1850.287	1	11 44 30	− 63 45 41	226.5	3.6	8.5	11	4919 L.	Not in H.
170	1852.282	1	11 50 22	− 70 31 35	121.8	11.7	12	13	4483 H.	
171	1851.271	1	11 54 17	− 72 27 43	325.3	57.0	7.5	11	4981 L.	Not in H.
172	1850.356	3	11 54 41	− 84 52 46	178.0	24.1	7.3	9.7	4058 B. A. C.	
	1851.324	2	11 54 41	− 84 52 46	176.6	17.2	6.8	9.5	4490 H., 3884 B.	
173	1850.279	1	11 58 38	− 64 52 30	68.0	9.6	7.5	9.5	4498 H., 3921 B., 5020 L.	
174	1851.378	1	12 0 48	− 75 39 7	0.5	18.0	11	13	4502 H.	
175	1851.271	1	12 4 24	− 72 24 8	8.0	45.6	10	10	. . . . . .	Not in H.
	1852.331	1	12 4 24	− 72 24 8	5.1	46.5	10	10		
176	1850.326	1	12 5 45	− 84 13 23	. .	. .	11	12	. . . .	Stars nearly equal in mag. and same R. A. Δ Dec. estimated 4″. Not in H.
177	1850.427	2	12 17 0	− 68 38 45	65.6	14.3	8.7	9.2	4522 H., 5139 L.	
178	1950.349	7	12 18 18	− 62 16 0	126.8	6.4	. .	. .	α^1, α^2 Crucis, 4521⅔ H., 1426 A.	
179	1850.329	1	12 33 5	− 82 49 26	324.1	8.8	10	12	4538 H.	H. says 10th and 10.5th mags., but there is all the difference recorded here.
180	1852.294	2	12 33 42	− 71 57 45	165.1	12.0	9	9	4540 H.	
181	1851.433	1	12 34 4	− 0 37 34	. .	. .	. .	. .	γ Virginis.	Δ R. A. $\pm 0^s.05$.
182	1850.408	1	12 36 1	− 74 21 55	10.5	13.4	10	10	4545 H.	
	1852.274	1	12 36 1	− 74 21 55	17.6	10.2	9.5	9.5		
183	1852.279	1	12 36 3	− 70 53 4	131.5	29.1	8	10	4168 B.	Not in H.
184	1852.353	1	12 39 8	− 66 18 39	101.0	12.9	8	9	4550 H., 4191 B., 5275 L.	

Number.	Date of Observation	No. of obs.	Right Ascension, Jan. 1, 1850.	Declination, Jan. 1, 1850.	Angle of Position.	Distance.	Magnitude.		Numbers in other Catalogues.	Notes.
							Prim.	Sec.		
			h. m. s.	° ′ ″	°	″				
185	1851.372	1	12 39 58	− 64 46 23	4.6	20.1	7	10.5	5280 L.	△ Dec. estimated at 20″
186	1852.372	1	12 46 47	− 65 58 32	6.0	24.4	9.5	10	. . . .	Not in H.
187	1850.346	2	12 49 0	+ 39 7 46	50.2	20.7	. .	. .	*a* Canum Venat.	
188	1852.282	1	13 3 22	− 70 13 29	318.0	18.4	9.5	10	. . . .	Not in H.
189	1851.364	1	13 11 9	− 80 17 45	137.7	31.8	10	11	. . . .	Not in H.
190	1851.339	1	13 14 24	− 76 22 54	282.2	63.8	9.5	10		
191	1851.291	2	13 20 25	− 76 47 9	132.8	23.7	6.5	9.5	4590 H., 4474 B., 5541 L.	
192	1852.337	1	13 21 58	− 69 39 30	3.5	24.4	8	10		
193	1851.235	1	13 26 19	− 79 48 37	261.8	7.1	9.5	10	4594 H.	
194	1852.342	1	13 33 53	− 71 13 38	81.6	9.7	8.5	9.5	4607 H.	
195	1851.378	1	13 41 43	− 75 31 40	3.4	53.1	9	10	. . . .	Not in H.
196	1851.424	1	13 43 26	− 66 9 29	49.0	23.2	8	9	5698 L.	Not in H.
	1852.446	1	13 43 26	− 66 9 29	53.7	22.6	9	9.5		
197	1850.394	1	13 47 29	− 77 40 19	0.7	5.1	9.5	9.5	4629 H.	
198	1852.517	1	13 50 47	− 66 17 33	349.7	8.2	9	10	. . . .	Not in H.
199	1851.271	1	13 53 4	− 72 15 0	213.3	32.3	10	11	. . . .	Not in H.
200	1851.244	1	14 1 18	− 76 57 21	153.1	68.4	6	9	5816 L.	Not in H.
201	1851.378	1	14 6 34	− 75 52 50	29.7	31.0	9.5	12	. . . .	Not in H:
202	1850.416	1	14 8 47	− 72 51 57	8.5	2.0	8.5	9	4667 H., 5865 L.	
203	1850.419	1	14 11 9	− 79 25 15	127.5	7.4	9	9.5	4671 H., 5864 L.	Large star yellow.
	1851.235	1	14 11 9	− 79 25 15	115.7	8.1	8	9		
204	1852.441	2	14 13 56	− 66 48 22	222.2	13.2	9	9.5	. . . .	Not in H.
205	1852.476	1	14 14 58	− 74 36 46	51.1	9.8	. .	. .	. . . .	Not in H.
206	1851.378	1	14 19 28	− 75 38 34	237.0	19.0	9.5	10	. . . .	Not in H.
	1852.356	1	14 19 28	− 75 38 34	226.8	20.1	9	9		
207	1851.271	1	14 20 14	− 72 18 45	101.2	36.2	9.5	11		
208	1850.470	28	14 29 27	− 60 12 53	296.0	7.4	. .	. .	a^1, a^2 Centauri, 4691½ H.	
	1851.282	7	14 29 27	− 60 12 53	280.5	7.6	. .	. .	1653 and 1654 A.	
	1852.496	8	14 29 27	− 60 12 53	282.0	6.5	. .	. .		
209	1851.438	1	14 36 48	− 69 54 7	148.2	19.2	9	10	4697 H., 6061 L.	
	1852.339	1	14 36 48	− 69 54 7	146.0	15.2	8	9		
210	1852.342	1	14 36 49	− 72 49 58	107.0	7.7	10	12	4693 H.	
211	1852.419	1	14 37 21	− 82 45 31	. . .	. .	9	. .	4866 B. A. C.	Comp. s. p. Not in H.
212	1850.444	1	14 39 42	− 68 54 51	90.0	5.4	9.5	10		
213	1852.537	2	14 47 57	− 67 22 45	345.0	7.4	8	11	6136 L.	Not in H.
214	1851.339	1	14.49 0	− 76 41 25	121.9	58.9	9.5	9.5	. . . .	Not in H.
215	1852.376	2	14 55 32	− 69 34 58	152.2	8.8	10	10	4729 H.	At second obs. comp. too faint to measure.
216	1852.492	2	15 7 0	− 74 39 45	139.4	6.6	8.7	8.7	4751 H.	
217	1850.550	1	15 9 8	− 83 49 39	205.0	7.7	10	12	. . . .	Believed to be double. Comp. 12th mag., prec. 2*s.* and south 6″ or 8″.
218	1851.487	1	15 13 24	− 76 59 14	22.5	20.0	9.5	14	4760 H.	
	1852.474	1	15 13 24	− 76 59 14	18.8	19.2	9.5	10.5		
219	1852.517	1	15 18 21	− 74 23 2	329.2	7.5	10	11	4770 H.	

Number.	Date of Observation	No. of obs.	Right Ascension, Jan. 1, 1850.	Declination, Jan. 1, 1850.	Angle of Position.	Distance.	Magnitude.		Numbers in other Catalogues.	Notes.
							Prim.	Sec.		
			h. m. s.	° ′ ″	°	″				
220	1852.513	2	15 19 40	− 73 50. 37	80.0	8.8	9	9	5335 B.	Not in H.
221	1852.365	2	15 27 12	− 79 8 18	307.5	11.2	9.8	10	4787 H.	
222	1852.520	1	15 34 57	− 68 31 23	67.2	10.1	9.5	10	4799 H.	
223	1852.550	1	15 36 56	− 69 59 52	117.7	31.3	9.5	9.5	. . . .	Not in H.
224	1852.400	2	15 43 44	− 70 40 4	315.0	35.3	8.2	9	4814½ H., 5508 B., 6534 L.	
225	1852.573	2	15 55 13	− 75 24 20	105.9	24.0	9.5	9.7	. . . .	Not in H.
226	1850.565	3	15 56 43	− 19 23 25	23.1	17.3	. .	. .	β¹ Scorpii, 4829¾ H.	In last obs. △ R. A. not measured, △ Dec. + 9″.49. [M.]
	1851.624	1	15 56 43	− 19 23 25	. .	. .	. .	. .	1836 A., 506 S.	
227	1852.586	1	16 7 28	− 68 59 31	14.3	32.9	10	10	. . . .	Not in H.
228	1852.580	2	16 19 37	− 67 49 54	308.0	8.2	9.7	10.5	4855 H.	
229	1851.228	5	16 20 13	− 26 5 38	221.8	3.4	. .	. .	α Scorpii.	△ Dec. estimated. Color, as comp. α Herculis, decidedly blue.
230	1850.616	1	16 37 0	− 67 17 24	23.5	7.3	9.5	9.5		
231	1850.523	1	16 38 48	− 82 4 47	9.0	35.1	8.5	10	4884 H., 6828 L.	
232	1852.545	2	16 39 44	− 75 56 53	140.0	10.0	10	10.2	. . . .	Not in H.
233	1850.559	1	16 50 18	− 75 9 38	184.3	12.1	8	9.5	4904 H., 7028 L.	
	1852.523	1	16 50 18	− 75 9 38	181.8	8.7	8.5	9.5		
234	1852.509	1	16 55 16	− 72 30 21	63.1	3.7	9	9.5	4914 H.	
235	1852.611	2	16 57 59	− 66 59 51	336.0	29.2	6	9.2	5761 B.A.C., 4917½ H., 7107 L., 214 D.	
236	1850.507	1	17 7 49	+ 14 33 55	. .	. .	.	. .	α Herculis.	Comp. blue.
237	1850.580	3	17 17 26	− 81 47 49	75.3	10.6	9.7	9.7	4947 H.	
238	1852.474	1	17 40 2	− 71 12 19	12.3	21.4	9.5	10	. . . .	Not in H.
239	1850.611	1	17 45 25	− 79 0 34	126.0	8.0	9.5	9.5	4988 H.	The preceding star is rather the brighter.
240	1850.604	2	17 50 15	− 75 11 15	171.0	15.3	8.2	9	4999 H., 7474 L.	
241	1851.635	1	17 53 38	− 76 40 54	90.0	1.7	9.5	10	. . . .	Noticed as double on Aug. 20th, also. Not in H.
242	1852.589	1	17 57 57	− 69 29 55	317.5	25.8	10	11		
243	1851.627	1	18 2 8	− 57 52 54	146.6	3.7	.	. .	5029 H., 7584 L.	No mags. noted.
244	1850.621	1	18 4 48	− 21 5 34	. .	. .	.	. .	μ^1 Sagittarii, 5035 H., 2096 A.	Has two equal and equidistant. Comps. one s. p., the other n.f. Seen repeatedly.
245	1851.660	2	18 8 40	− 71 50 53	124.0	13.3	9.5	9.5	5038 H., 6361 B.	
246	1851.668	1	18 9 36	− 55 37 24	176.5	29.9	8	8.5	5038½ H., 7649 L. 220 D.	This angle agrees with D, who also noted inequality of brightness. H. has the stars of same size and gives the angle of position from the following one, which would make my measure 356°.5.

Number.	Date of Observation	No. of obs.	Right Ascension, Jan. 1, 1850.	Declination. Jan. 1, 1850.	Angle of Position.	Distance.	Magnitude.		Numbers in other Catalogues.	Notes.
							Prim.	Sec.		
			h. m. s.	° ′ ″	°	″				
247	1850.677	2	18 26 12	− 83 47 4	125.0	10.9	9.7	10.7	. . . .	Not in H.
248	1852.668	1	18 43 17	− 66 5 19	115.3	3.9	8	9		
249	1851.575	1	18 46 19	− 73 58 51	. .	. .	9	. .	. . . .	Mr. Phelps remarks: "Has a small comp. too indistinct to observe." Not noticed by him in zone 1851, Sept. 16. Not in H.
250	1850.611	1	18 49 18	− 78 51 26	351.2	26.3	9	10.5	5074 H.	
251	1851.632	1	19 10 40	− 76 56 52	6.4	8.7	11	13	. . . .	Not in H.
252	1851.695	1	19 12 33	− 74 5 27	211.1	48.6	9	10	6637 B.	Not in H.
253	1852.624	2	19 14 34	− 67 36 2	141.5 16.0	24.0 34.8	8 8	9.5 11	5109 H., 6651 B.	Triple.
254	1852.674	2	19 21 11	− 66 43 19	186.0	26.0	10	10.5	5123 H.	
255	1852.671	1	19 29 20	− 66 37 48	308.9	21.3	8	9.5	5132 H.	
256	1851.641	1	19 41 14	− 79 10 26	152.3	31.5	9	10	5149 H.	
257	1851.687	1	19 51 51	− 71 14 1	294.0	8.3	9	12	5162 H.	
258	1850.747	2	20 11 56	− 77 41 2	99.5	8.3	9.2	9.7	5186 H., 8376 L.	
259	1851.758	1	20 21 50	− 41 23 46	. .	. .	. .	. .	8465 L.	Very clear double. "Equal" mag. Just separated. The two equal to 7th mag.
260	1851.608	2	20 23 40	− 75 52 0	16.1	18.9	7.2	7.7	7075 B. A. C.	
	1852.638	1	20 23 40	− 75 52 0	19.6	17.2	7	7.5	5201½ H., 232 D.	
261	1851.219	6	20 22 15	− 87 37 26	329.5	17.8	9.1	9.3	5192 H.	
262	1852.674	1	20 38 8	− 66 15 31	118.8	6.9	10	10	5221 H.	
263	1850.613	1	20 43 48	− 81 16 14	250.9	5.2	7	10	. . . .	Not in H.
264	1851.690	2	20 44 0	− 70 59 36	293.8	7.6	8.5	9	5231 H., 8573 L.	
265	1851.638	1	20 44 9	− 75 59 46	166.5	17.2	8	10	5230 H., 8562 L.	
266	1851.761	1	20 46 23	− 77 35 17	301.9	1.9	6	10	α Octantis.	Not in H.
267	1851.031	3	20 49 8	− 84 54 53	84.5	3.9	9.2	9	5235 H., 8511 L.	The first and second obs. give equal mags. to the first, 1850, Aug. 23, there is the remark, "Preceding rather brighter." [M.]
268	1851.652	1	20 52 54	− 74 28 22	58.5	5.4	11	11	. . . .	Not in H.
269	1851.221	6	21 14 26	− 86 30 30	210.7	6.1	9.2	9.6	5261 H., 8626 L.	
270	1851.759	2	21 16 40	− 71 59 53	318.0	30.3	9.2	9.5		
271	1850.663	1	21 27 13	− 83 24 0	82.0	3.6	6	9	λ Octantis, 5278 H., 7042 B.	
272	1850.895	2	21 46 48	− 78 1 22	205.0	9.7	8.7	10.5	5301 H., 8935 L.	
273	1850.705	2	22 3 43	− 81 11 54	121.3	9.9	10	10	5318 H.	
274	1850.773	2	22 6 35	− 79 7 17	133.0	5.2	10.5	11.5	. . . .	Not in H.
275	1851.790	2	22 11 17	− 73 33 23	272.2	20.2	8.7	9	5325 H., 9079 L.	
276	1850.682	4	22 16 36	− 65 43 42	252.2	5.9	5.5	10.5	δ Tucanæ, 5334 H., 2760 A.	
277	1851.227	1	22 25 51	− 85 43 1	172.9	55.0	10	12		

Number.	Date of Observation	No. of obs.	Right Ascension, Jan. 1, 1850.	Declination, Jan. 1, 1850.	Angle of Position.	Distance.	Magnitude.		Numbers in other Catalogues.	Notes.
							Prim.	Sec.		
			h. m. s.	° ′ ″	°	″				
278	1851.718	3	22 30 44	− 70 32 5	132.9	30.0	10	11		
279	1850.736	1	22 46 6	− 85 20 23	111.7	8.4	10	10	5368 H.	
	1851.683	4	22 46 6	− 85 20 23	124.0	8.6	10.4	10.4		
	1852.246	2	22 46 6	− 85 20 23	134.5	9.1	10	10		
280	1851.824	1	22 51 53	− 67 40 57	56.8	39.9	9.5	11	. . . .	Not in H.
281	1851.704	1	22 54 50	− 83 11 58	167.0	48.0	10	10	5378 H.	
282	1851.838	1	22 59 31	− 60 32 3	311.3	10.7	7.5	10	5384½ H., 9372 L., 245 D.	
283	1851.734	1	23 8 17	− 69 34 1	196.3	59.0	9.5	10	. . . .	Not in H.
284	1850.901	1	23 15 22	− 54 38 13	. .	. .	. .	. .	8148 B. A. C.	Simply noted "double."
285	1851.731	1	23 21 59	− 69 53 55	198.3	33.5	7.5	10	5402 H., 9492 L.	
286	1851.769	2	23 31 21	− 71 56 49	145.0	8.2	10	11	5409 H.	
287	1850.879	1	23 38 1	− 72 48 36	110.0	18.9	10	10	5419 H.	
288	1850.876	2	23 45 21	− 73 1 19	60.7	10.0	10	10	5427 H.	
289	1851.903	1	23 52 47	− 67 31 0	270.0	2.3	9	10.5	. . . .	Not in H.
290	1851.764	1	23 53 29	− 71 1 17	123.3	31.0	11	12	. . . .	Not in H.

FEB 6 - 1939